Dewberry

2019 Connecticut Natural Hazards Mitigation Plan Update

Department of Emergency Services and Public Protection
(Division of Emergency Management and Homeland Security)
Department of Energy and Environmental Protection

January 2019

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Acronym List

Acronym	Definition
ALERT	Connecticut Automated Flood Warning System
BFE	Base Flood Elevation
BOCA	Building Officials and Code Administration
C.G.S.	Connecticut General Statute
CAP	Community Assistance Program
CAV	Community Assistance Visit
CCMA	Connecticut Coastal Management Act
CEO	Council of Elected Officials
CFMA	Connecticut Floodplain Management Act
CFR	Code of Federal Register
CIHMC	Connecticut Interagency Hazard Mitigation Committee
CLEAR	Center for Land Use Education and Research
CMI	Crop Moisture Index
COG	Council of Governments
CRREL	U.S. Army Cold Regions Research & Engineering Laboratory
CRVFCC	Connecticut River Valley Flood Control Compact
CT PHERP	Connecticut Public Health Emergency Response Plan
DEMHS	Connecticut Department of Emergency Management and Homeland Security
DAS	Department of Administrative Services
DCS	Division of Construction Services
DEMHS	Division of Emergency Management and Homeland Security
DEEP	Connecticut Department of Energy and Environmental Protection
DESPP	Department of Emergency Services and Public Protection
DMA 2000	Disaster Mitigation Act of 2000
DOE	Connecticut Department of Education
DOH	Connecticut Department of Housing
DOT	Connecticut Department of Transportation
DPH	Connecticut Department of Public Health
EAS	Emergency Alert System
EOC	State Emergency Operations Center
EWP	Emergency Watershed Protection
FECB	Flood and Erosion Control Board
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FMA	Flood Mitigation Assistance
FMP	Flood Management Program
FPMS	Floodplain Management Studies
GIS	Geographic Information System
GPS	Global Positioning System
HMA	Hazard Mitigation Assistance
HMGP	Hazard Mitigation Grant Program

HMGRC	Hazard Mitigation Grant Review Committee
IA	Individual Assistance
IBC	2003 International Building Code
IPCC	United Nations Intergovernmental Panel on Climate Change
IRC	2003 International Residential Code
IWRD	Inland Water Resources Division
JESTIR	Joint Effort for State Inventory Reporting
LWRD	Land and Water Resources Division
LISICOS	Long Island Sound Integrated Coastal Observing System
MACOORA	Mid-Atlantic Coastal Ocean Observing Regional Association
MHFMMM	Multi-Hazard Flood Map Modernization Management Program
MIP	Management Information Portal
MOU	Memorandum of Understanding
NAWAS	National Warning System
NCEI	National Centers for Environmental Information
NECIA	Northeast Climate Impacts Assessment group
NFIA	National Flood Insurance Act
NFIP	National Flood Insurance Program
NFIRS	National Fire Incident Reporting System
NGVD	National Geodetic Vertical Datum of 1929
NHMP	Natural Hazard Mitigation Plan
NOAA	National Oceanic & Atmospheric Administration
NRCS	National Resources Conservation Service
NU	Northeast Utilities
NWRAH	NOAA Weather Radio All Hazards
OIM	Connecticut DEEP's Office of Information Management
OLISP	Office of Long Island Sound Program
OPM	Connecticut Office of Policy and Management
OSBI	Connecticut Office of the State Building Inspector
PA	Public Assistance
PDM	Pre-Disaster Mitigation Program
PDSI	Palmer Drought Severity Index
RFC	Repetitive Flood Claims Grant Program
RPA	Regional Planning Agencies
RPO	Regional Planning Organization
SBA	Small Business Administration
SCEL	Stream Channel Encroachment Line
SHPO	State Historic Preservation Office
SHMO	State Hazard Mitigation Officer
SHMPT	Connecticut State Hazard Mitigation Planning Team
SHSGP	State Homeland Security Grant Program
SLR	Sea Level Rise
SLOSH	Sea, Lake and Overland Surges from Hurricanes
TRVFCC	Thames River Valley Flood Control Compact
USACE	U.S. Army Corps of Engineers

USDA	U.S. Department of Agriculture
USDHS	U.S. Department of Homeland Security
USGS	U.S. Geological Survey
WUI	Wildland/Urban Interface

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Executive Summary

The 2019 Connecticut State Hazard Mitigation Plan Update serves as guidance for hazard mitigation for the State of Connecticut. Its vision is supported by three central goals, each with an objective, a set of strategies and associated actions for Connecticut state government, stakeholders, and organizations that will reduce or prevent injury from natural hazards to people, property, infrastructure, and critical state facilities Funding for this Plan was provided through a Federal Emergency Management Agency (FEMA) Pre-Disaster Mitigation (PDM) grant, supplemented with Community Development Block Grant – Disaster Recovery (CDBG-DR) funds. The Department of Emergency Services and Public Protection (DESPP) was grantee for this planning grant. This plan fulfills the standard state mitigation planning requirements (44 CFR §201.4) of the Disaster Mitigation Act of 2000 (DMA2000; Public Law 106-390, signed into law October 10, 2000). This plan was adopted by the State on and approved by FEMA on December 17, 2018.

Planning Process

The development of this plan was led by the hazard mitigation staff at the Department of Emergency Services and Public Protection (DESPP), Division of Emergency Management and Homeland Security, and the Department of Energy and Environmental Protection (DEEP), with the assistance of Dewberry's consulting team. The Connecticut State Hazard Mitigation Planning Team (SHMPT) and a large group of stakeholders that include Connecticut state agencies, Federal government collaborators, non-governmental organizations (NGOs), and local representation attended four plan development meetings and provided comments on the plan draft. Staff from FEMA Region I provided a plan review. Public participation for the update of the Plan was primarily enabled through participation in an internet-based survey and posting of the Draft 2018 Connecticut State Hazard Mitigation Plan Update to DEMHS's website.

Natural Hazard Identification and Risk Assessment

The SHMPT identified natural hazards that threaten Connecticut and ranked them according to the relative extent of risk they pose to the lives and property of the state's residents and its economy. Vulnerability assessments and loss estimations, which are based on the history of occurrences and exposure, were developed to present an understanding of the potential impacts to the State from natural hazard events. Across all counties, winter weather and thunderstorms are notably higher risk hazards, with tornado, flood, and tropical cyclone having a slightly lower, but still significant risk. Dam failure and wildland fire have particularly low risk across all counties. The impacts of climate change on the frequency and severity of each hazard were considered in each individual hazard section.

Population

To fully understand the risks and potential impacts of natural hazard events, it is pertinent to understand the assets including facilities and population within the State that may be at risk. Section 2.2.2 presents a summary of Connecticut's demographics. The total state

population estimate for 2017 was 3,588,184[1] people. Fairfield, Hartford, and New Haven have the greatest density of people per square mile. Two-thirds of the State's population and housing units are within Fairfield, Hartford, and New Haven Counties.

Facilities

The Connecticut Office of Policy and Management (OPM) provided available data on critical and state facilities. The assessed values for the buildings were derived from the JESTIR database. There are more than 3,300 state-owned facilities, valued at over $5.6 billion. Hartford contains over 26% of the structures. There are more than 1,940 identified critical facilities listed in data files including law enforcement, fire stations, emergency management services (EMS), health departments, correctional facilities, nuclear power plants, gas stations with generators, petroleum, oil, and lubricant infrastructure, storage facilities, farms, and water pollution control facilities (WPCFs). Fire stations account for 31% of the structures within the critical facilities dataset, followed by EMS (26%), and municipal solid waste (14%). The number and value of state and critical facilities differed from the 2013 plan update due to data constraints, which is further explained in Section 2.2.3 of the Natural Hazard Identification and Risk Assessment.

Land Use and Development

Existing and planned land use patterns greatly influence a community's hazard vulnerability. Future land use decisions should be informed by a community's potential hazards and vulnerability, directing development toward areas that are least vulnerable, creating a more disaster-resistant environment. Section 2.2.4 summarizes the current land use and development trends within Connecticut. The Center for Land Use Education and Research (CLEAR) at the University of Connecticut provides information, education, and assistance to land use decision makers to support balancing growth and natural resource protection. CLEAR provided a Statewide Land Cover map from 2015, which presents 12 different land cover types across categories, such as developed land, forests, and grass. Over the last 30 years, developed land has increased over 3% throughout the state, and the turf and grass cover type has increased 1.6%, while deciduous and coniferous forests collectively have decreased by 3.9%. Connecticut has also lost almost 60 square miles, or 1.3%, of agricultural fields. A significant amount of the development occurred along the shoreline, which is vulnerable to storm surge and flooding. Development also occurred along Route 91 in the center of the state and within denser municipalities. The pace of development slowed dramatically during years 2007-2011 as a consequence of the economic downturn. Building permits have increased since the recession, but have remained far below the height of development in 2006, and permits took a significant dip in 2016 and 2017.

Climate Change

Climate change is both a present threat and a slow-onset disaster. It acts as an amplifier of existing hazards. Extreme weather events have become more frequent over the past 40 to 50 years, and this trend is projected to continue. Rising sea levels, coupled with potentially higher hurricane wind speeds, rainfall intensity, and storm surges are expected to have a

[1] Census.gov QuickFacts Connecticut (10/2018)

significant impact on coastal communities. More intense heat waves may mean more heat-related illnesses, droughts, and wildfires. This plan update includes discussions of how climate change is and will continue to impact the frequency, intensity, and distribution of specific hazards. Several state-level committees and task forces have been established to address climate change and sea level rise issues. The progress of these groups is outlined in Chapter 3.

History of Natural Disasters

Since 2010, Connecticut has experienced eight major disaster declarations, while during the decade prior, the state only experienced two major disaster declarations. There have been 21 State disaster declarations and 11 emergency declarations since 1954. These disasters had significant impacts on Connecticut and its residents, such as loss of residences, property and possessions, loss of life and injury, lost wages and business revenue, in addition to psychological and sociological costs to disaster victims and their families. Historically, flooding has caused the most damage to the State and its citizens, along with wind and winter storm disaster events. Section 2.3.1 presents a summary of disaster declarations in Connecticut.

Section 2.3.2 details the records available within the National Oceanic and Atmospheric Administration (NOAA) National Centers for Environmental Information (NCEI) database. NOAA has recorded an estimated 5,015 severe weather events for Connecticut in the NCEI storm events database, dating back to 1950. Since the 1950s, $1.8 billion in property losses have been documented in NCEI. The majority of the documented damage is attributed to tornados, specifically in Hartford and New Haven counties. Thunderstorms represent 54% of the events within the database, followed by winter weather (22%) and flood (18%). Litchfield has experienced the most events for the categories of thunderstorms and winter weather. Fairfield has experienced the most flood events, with New Haven closely behind. No losses have been recorded for drought.

Review of Local Hazard Mitigation Plans

In the preparation of this plan update, 153 local hazard mitigation plans covering 173 communities were reviewed for three components: (1) identified hazards, (2) estimated potential losses, and (3) land use and development trends. Estimations of potential losses were highly variable among the local plans. The majority of plans provided loss estimates based on historical damages from flooding, wind, or earthquake events. Table 0-1 summarizes the results.

Table 0-1: Local Plan Annualized Loss Estimates by Hazard Type

Hazard	Average	Number of Plans with Loss Estimates
Coastal	$470,120	7
Riverine	$118,742	16
Drought	$2,400	1
Dam Fail	$3,550	3
Earthquake	N/A	0
Hailstorm	N/A	0

Hazard	Average	Number of Plans with Loss Estimates
Hurricane	N/A	0
Thunderstorm	$7,512	42
Wildfire	$8,699	13
Wind	$57,250	10
Winter Storm	$544,707	83
Tornado	$1,612	23

A review of land use from the local hazard mitigation plans presents a closer look at where development is occurring across the state. Although Tolland and Windham Counties have largely remained rural, many of the other counties have experienced development recently, and this trend is expected to continue. Many communities in Fairfield County are projecting that growth will occur near Metro-North stations, including Darien, Greenwich, New Canaan, Norwalk, Stamford, Weston, and Westport. Many towns are limiting development in natural hazard areas (such as coastal areas), but some communities have indicated that growth has been directed to former industrial areas that are located within the coastal flood hazard area.

Public Input

Public participation and input was gathered though an internet-based survey. Survey questions were related to hazard identification and recent hazards events. In all, 41 people responded to the survey; 14 of those responded as representatives of municipal departments, 1 as a representative of a state agency, and 1 as a representative of a conservation association. The other 20 respondents were members of the public who are residents of the State. Several important messages were provided by the survey responders.

Respondents were asked to rate their concerns regarding different natural hazards as low, moderate, or high. A weighted average of these results revealed that the top four hazards that respondents were the most concerned with were (1) winter storms and blizzards, (2) hurricanes and tropical storms, (3) severe thunderstorms, and (4) climate change. Climate Change was a top concern, despite the fact that few respondents felt that they had already been impacted by it.
Respondents were asked about the most important things that the state can do to help communities prepare for a disaster. The top two responses were:

- Provide technical assistance to residents, businesses, and organizations to help them reduce losses from hazards and disasters; and
- Help improve warning and response systems to improve disaster management.

Further details and analysis from the public survey are provided in Section 1.10.1 of this plan. The public input was integrated into the development of state mitigation activities as presented in Chapter 5.

Hazard Analysis and Ranking

A detailed hazard ranking methodology is presented in Section 2.7.1. This process incorporated data on population density, building permits, annualized events, annualized

damages, injuries and/or deaths from previous events, level of hazard concern, local plan hazard ranking, geographic extent, and critical infrastructure.

Sections 2.9 through 2.28 contain descriptions of each type of natural hazard that threatens Connecticut. Hazard descriptions include general information, past history, future risk and vulnerability. Supplemental information on past events and analysis is provided in Appendix 2.

The hazards determined to have a significant impact on the population and built environment of Connecticut are:

- Dam Failure
- Drought
- Earthquake
- Flood-Related Hazards
- Sea Level Rise
- Thunderstorm-Related Hazards
- Tornado
- Tropical Cyclone (Hurricane and Tropical Storm)
- Wildland Fire
- Winter Weather

Figure 0-1 depicts the results of the risk analysis. The composite ranking, as shown, provides a tool for the State of Connecticut to prioritize appropriate mitigation actions within each county.

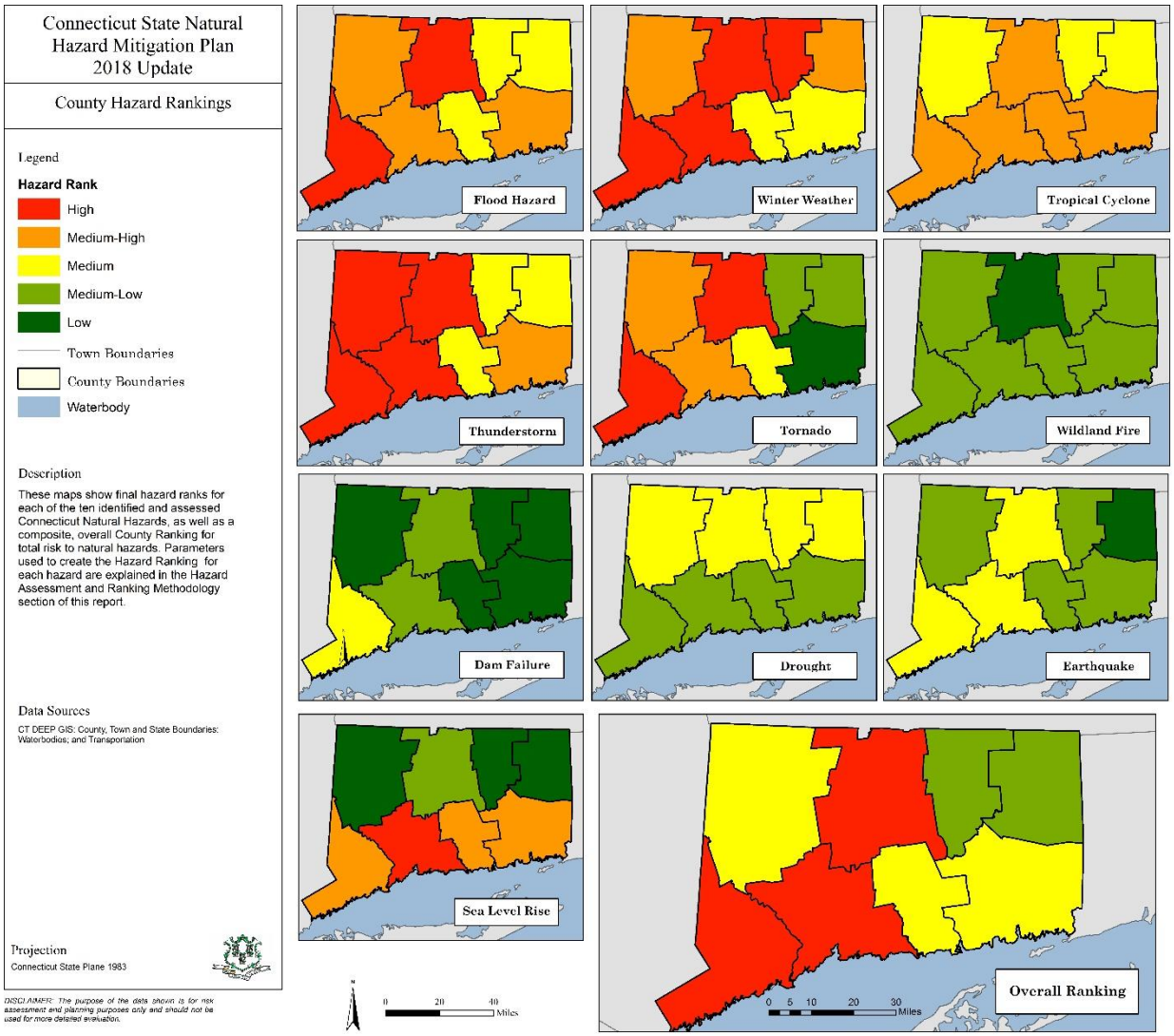

Figure 0-1: Composite County Hazard Ranking

Potential Losses and Anticipated Impacts

Based on information from the NCEI database, Connecticut has experienced over $1.7 billion in property damages from the hazards profiled in this plan. Tornado events have been responsible for the majority of property damages, with over $1.6 billion in damages. Thunderstorm events were recorded the most frequently in the NCEI database for Connecticut. Litchfield County experienced the highest number of storm events, while Hartford and New Haven Counties experienced the highest property damages.

Capability Assessment

The State and local governments offer many policies, programs, and capabilities to support the implementation of mitigation actions. Chapter 3 presents in detail the role of federal, state, and local agencies in assisting with mitigation and risk reduction activities across the

State. This chapter outlines pertinent executive orders, programs, and policies, at all levels of government, that support the State's mitigation strategy. It also acknowledges capabilities available through utility providers, the University of Connecticut, The Nature Conservancy, Citizen Volunteer Organizations, and other non-governmental organizations such as the American Red Cross and the Salvation Army.

Since 2013, two key groups were established to support resilience initiatives in Connecticut and are discussed in further detail below.

State Agencies Fostering Resilience (SAFR) was formed in 2015 as a permanent working group committed to strengthening the state's resiliency to extreme weather events. The SAFR Council is charged with authoring a Statewide Resilience Roadmap using climate impact research, creating state policies that incorporate forward-looking risk analysis, and assisting municipalities in incorporating climate analysis into their coastal resilience plans.

The Connecticut Institute for Resilience and Climate Adaptation (CIRCA) was established as a multi-disciplinary center of excellence that brings together experts in the natural sciences, engineering, economics, political science, finance, and law to provide practical solutions to problems arising as a result of a changing climate. CIRCA runs a research program as well as an external grants program for Connecticut. Further details are included in Chapter 3.

Local Planning Coordination

Connecticut continues to encourage and facilitate local planning efforts to ensure that local and multi-jurisdiction hazard mitigation plans are in place. Connecticut began assisting communities drafting local hazard mitigation plans in 1997, utilizing Flood Mitigation Assistance (FMA) planning grant funds. The State of Connecticut's current approach is to work with regional planning organizations (RPOs) as frequently as possible to prepare multi-jurisdiction hazard mitigation plans. Chapter 4 presents a summary of the local hazard mitigation planning process.

Hazard Mitigation Strategy for 2018

During the 2019 plan update process, the State's planning team met on multiple occasions to discuss the goals, objectives, strategies, and activities required to minimize the identified natural hazard risks. Chapter 5 presents the detailed mitigation strategy which is based on the following goals and objectives. The complete mitigation strategy includes specific strategies for each goal as well as prioritized implementable actions.

Goal 1 – Promote implementation of sound floodplain management and other natural hazard mitigation principles on a State and local level.

Objective for Goal 1: To increase general awareness of Connecticut's natural hazards and encourage State agencies, regional entities, local communities, and the general public to be proactive in taking actions to reduce long-term risk to life and property.

Goal 2 – Implementation of effective natural hazard mitigation projects on a State and local level.

Objective for Goal 2: To enhance the ability of State agencies, regional entities, and local communities to reduce or eliminate risks to life and property from natural hazards through cost-effective hazard mitigation projects, including avoidance.

Goal 3 – Increase research and planning activities for the mitigation of natural hazards on a State and local level.

Objective for Goal 3: To increase general awareness of Connecticut's natural hazards and encourage State agencies, local communities, and the general public to be proactive in taking actions to reduce long-term risk to life and property.

Plan Monitoring, Maintenance, and Revision

A Mitigation Action Tracker spreadsheet was created for tracking implementation of all new and "carry over" mitigation actions. Primary responsibility for plan monitoring and maintenance resides with the SHMO, within DEMHS. Standing, ad-hoc Mitigation Sub-Committees will be convened, surveyed, or engaged periodically as necessary during the 2019–2024 plan implementation cycle.

CT NHMP Summary

The 2019 Connecticut Natural Hazard Mitigation Plan provides guidance for hazard mitigation activities within the State and has undergone a full revision using the best available data and subject-matter experts for the required update. This plan fulfills the standard state mitigation planning requirements (44 CFR § 201.4).

The SHMPT is committed to a long-term strategy for reducing risks to natural hazards, as shown in the mitigation strategy set forth in this plan. Mitigation actions will reduce risk from natural hazards to citizens, state facilities, and critical facilities. Connecticut is committed to the implementation of the plan through continued involvement of the steering committee. Capabilities of agencies and programs within the state will allow for collaboration, integration of concurrent planning initiatives, and progress on mitigation actions through to the 2024 plan update.

1 Introduction and Planning Process

1.1 Purpose of the Connecticut State Hazard Mitigation Plan Update

The 2019 Connecticut State Hazard Mitigation Plan Update serves as guidance for hazard mitigation for the State of Connecticut. Its vision is supported by three central goals, each with an objective, a set of strategies and associated actions for Connecticut State government, stakeholders, and organizations that will reduce or prevent injury and damages from natural hazards to people, property, infrastructure, and critical state facilities.

Funding for this Plan was provided through a Federal Emergency Management Agency (FEMA) Pre-Disaster Mitigation (PDM) grant, supplemented with Community Development Block Grant – Disaster Recovery (CDBG-DR) funds. The Department of Emergency Services and Public Protection (DESPP) was grantee for this planning grant.

The areas of focus for the updated 2019 Plan are:

- Expand upon and improve the previous hazard identification and risk assessment section of the Plan, including the addition of analysis using updated state owned and critical facility data;
- Expand the Capabilities Assessment to include state government reorganization and the addition of numerous new initiatives;
- Expand the discussion on potential impacts due to climate change with regards to natural hazard mitigation in applicable hazard risk assessment sections;
- Inclusion of updated information within all chapters of the Plan;
- Reassessment of the goals, objectives, and activities presented in the 2014 Plan; and
- Increase State agency and other stakeholder participation and coordination.

1.1.1 Federal Authorities

This plan fulfills the standard state mitigation planning requirements (44 CFR §201.4) of the Disaster Mitigation Act of 2000 (DMA2000; Public Law 106-390, signed into law October 10, 2000). The DMA2000 amends the 1988 Robert T. Stafford Disaster Relief and Emergency Assistance Act, and reinforces the importance of mitigation planning, emphasizing planning for disasters before they occur. Section 322 of the act specifically addresses mitigation planning at state and local levels. New requirements are identified that allow Hazard Mitigation Grant Program (HMGP) funds to be used for mitigation activities and projects for states and localities with Hazard Mitigation Plans approved by November 1, 2004 and updated on a five year cycle. The 2019 Connecticut State Hazard Mitigation Plan Update is a standard plan meeting the requirements for a Standard State Plan detailed in Interim Rule 44 CRF 201.4, published by FEMA February 28, 2004 and subsequently revised. The Standard Plan was first approved by FEMA Region I during late 2004. Connecticut received approval for subsequent updates in late 2007, early 2011 and early 2014.

Meeting the requirements and criteria of Section 322 regulations and rules enables Connecticut to remain qualified for all disaster-related assistance including categories C

through G of the Public Assistance (PA) Program. This is an essential component of disaster recovery. In addition, the State will remain eligible for Hazard Mitigation Assistance (HMA) program funds: Hazard Mitigation Grant Program (HMGP), Flood Mitigation Assistance (FMA), Pre-Disaster Mitigation Program (PDM), and Fire Mitigation Assistance Grants (FMAG). The state also participates in the Community Assistance Program – State Support Services Element (CAP-SSSE).

The State of Connecticut is also in compliance with other related Federal authorities including:

- FEMA regulations - 44 CFR, Part 13, Uniform Administrative Requirements of Grants and Cooperative Agreements to State and Local Governments;
- FEMA regulations - 44 CFR, Part 14;
- Executive Order 12612, Federalism;
- Executive Order 11990, Protection of Wetlands;
- Executive Order 11988, Floodplain Management;
- 2 CFR 200, Uniform Administrative principles, and Audit Requirements for Federal Awards; and
- 44 CFR, Part 201.4 (c) (7) § 13.11 (c) and § 13.11 (d).

The State of Connecticut will continue to comply with all applicable Federal statutes and regulations during periods for which it receives grant funding, in compliance with 44 CFR 13.11(c), and will amend its plan whenever necessary to reflect changes in the State or Federal laws and statutes as required in 44 CFR 13.11(d).

1.1.2 State Authority

The DESPP was established by PA 11-51—HB 6650 Emergency Certification AN ACT IMPLEMENTING THE PROVISIONS OF THE BUDGET CONCERNING THE JUDICIAL BRANCH, CHILD PROTECTION, CRIMINAL JUSTICE, WEIGH STATIONS AND CERTAIN STATE AGENCY CONSOLIDATIONS and given jurisdiction over emergency management previously held by the Department of Emergency Management and the Department of Public Safety. Other related programs and authorities are addressed in detail in Chapter 3.

1.1.3 Disaster Mitigation Act of 2000 and Implementing Regulations

Section 322 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act or the Act), 42 U.S.C. 5165, was enacted under § 104 of the Disaster Mitigation Act of 2000, (DMA 2000) Public Law 106-390. DMA 2000 was intended to facilitate cooperation between state and local authorities. It encourages and rewards local and state disaster planning in advance of disasters in order to promote sustainability of communities and services as a strategy to improve disaster resistance. This pre-disaster plan is intended to support state and local governments' efforts to articulate accurate and prioritized needs for hazard mitigation that will reduce exposure to natural hazards. This planning effort will result in timely allocation of funding and more effective risk reduction strategies and projects.

FEMA prepared an Interim Final Rule, published in the Federal Register on February 26, 2002 within 44 CFR Parts 201 and 206 that establishes planning and funding criteria for states. The Final Rule was published in October, 2009. The Guidance and Standard Plan Crosswalk was revised November 4, 2006 and was further updated to include requirements for 90%-10% Federal funding for the Severe Repetitive Loss (SRL) and Flood Mitigation Assistance (FMA) grant programs in January, 2009. The most recent revision to the guidance for state plans was in March of 2015. The completed Review Tool for the *2019 Connecticut Hazard Mitigation Plan Update* may be found in Appendix 1-1.

1.1.4 44 Code of Federal Regulations Part 201

44 CFR § 201.1 et seq. was promulgated by the Federal Emergency Management Agency, (FEMA) on February 26, 2002 in order to implement DMA 2000. The interim final rule was amended several times to address standard and enhanced state plans during 2007. Revised guidance for local plans was released July 1, 2008 with additional major revisions in 2013. In addition, guidance for the Severe Repetitive Loss and Flood Mitigation Assistance Programs (44 CFR § 201.4 et seq.) requires amendment of state plans per a new review tool for these programs issued on March 9, 2015. The rule addresses state mitigation planning, and specifically in 44 CFR § 201.3 (c) identifies the states' mitigation planning responsibilities, which include:

1. Prepare a Standard State Mitigation Plan following the criteria in §201.4 as a condition of receiving non-emergency Stafford Act assistance and FEMA mitigation grants. The plan may address severe repetitive loss properties in their plan (§201.4 (c)(3)(v)) to receive the reduced cost share for the FMA and severe repetitive loss programs.
2. Review and update the Standard State Mitigation Plan every five years from the date of the approval of the previous plan to continue program eligibility.
3. Make available the use of up to seven (7) percent of HMGP funding for planning in accordance with §206.434.Prepare and submit to FEMA a Standard Hazard Mitigation Plan following criteria established in 44 CFR § 201.4 as a condition of receiving Stafford Act assistance (except emergency assistance).
4. Provide technical assistance and training to local governments to assist them in applying for HMGP planning grants and in developing local mitigation plans.

44 CFR § 201.4, Standard State Mitigation Plans, lists the required elements of state hazard mitigation plans. Under 44 CFR § 201.4 (a), by November 1, 2004 states must have an approved Standard State Hazard Mitigation Plan that meets the requirements of the regulation to receive Stafford Act assistance. The planning process, detailed by 44 CFR § 201.4 (b), must include coordination with other state agencies, appropriate Federal agencies and interested groups. Guidance for state standard and enhanced plans and local and multi-jurisdictional plans has been updated several times to incorporate changes from the Katrina Reform Act, Unified Hazard Mitigation Assistance Grant Programs, and "lessons learned" through the first cycle of state and local mitigation planning. Current state standard plan guidance and the state plan cross walk were used to inform the *2019 Connecticut State Hazard Mitigation Plan Update.*

44 § 201.4 (c), Plan content, identifies the following elements that must be included in a state hazard mitigation plan:

1. Describe the current process used to update the plan, including how other state and federal agencies and other stakeholders were involved in the process in multiple sectors.
2. Prepare a risk assessment that describes natural hazards and makes a connection between vulnerability and proposed hazard mitigation actions, focusing on areas most at risk by evaluating where populations, infrastructure, and critical facilities are vulnerable to hazards; and identifying to what extent injuries or damage may occur. The risk assessment should also consider the probability of future hazard events associated with climate change.
3. Develop mitigation strategies to guide long-term reduction of the potential losses identified in the risk assessment, describe the process of evaluating and prioritizing actions, and identify funding sources.
4. Describe existing State pre- and post-disaster hazard management policies, programs, and capabilities for mitigating hazards, and how the State supports developing local and Tribal mitigation plans.
5. Identify criteria for prioritizing jurisdictions to receive planning and project grants under federal and non-federal programs.
6. Describe the process to keep the plan current through monitoring, evaluating, and updating the plan, as well as the process to monitor implementation of the mitigation strategies.
7. Document how the plan is formally adopted.
8. Include assurances that the State will comply with all applicable Federal statutes and regulations.
9. Develop a strategy to reduce the number of repetitive loss properties, including severe repetitive loss properties. *44 CFR Part 206*

On February 26, 2002, FEMA also changed *44 CFR Part 206* in order to implement DMA 2000 (See 67 Federal Register 8844 [February 26, 2002]). Changes to *44 CFR Part 206* authorize HMGP funds for planning activities and increase the amount of HMGP funds available to states that develop an Enhanced Mitigation Plan. FEMA amended Part 206 in 2006 following the passage of the Katrina Reform Act which restored HMGP funding to 15 percent of eligible disaster recovery costs for states with approved Standard Mitigation Plans.

44 CFR Part 400

(a) As a condition of the receipt of any disaster assistance under the Stafford Act, the applicant shall carry out any repair or construction to be financed with the disaster assistance in accordance with applicable standards of safety, decency, and sanitation and in conformity with applicable codes, specifications and standards.

(b) Applicable codes, specifications, and standards shall include any disaster resistant building code that meets the minimum requirements of the National Flood Insurance Program (NFIP) as well as being substantially equivalent to the recommended provisions of the National Earthquake Hazards Reduction Program (NEHRP). In addition, the applicant

shall comply with any requirements necessary in regard to Executive Order 11988, Floodplain Management, Executive Order 12699, Seismic Safety of Federal and Federally Assisted or Regulated New Building Construction, and any other applicable Executive orders.

(c) In situations where there are no locally applicable standards of safety, decency and sanitation, or where there are no applicable local codes, specifications and standards governing repair or construction activities, or where the Regional Administrator determines that otherwise applicable codes, specifications, and standards are inadequate, then the Regional Administrator may, after consultation with appropriate State and local officials, require the use of nationally applicable codes, specifications, and standards, as well as safe land use and construction practices in the course of repair or construction activities.

(d) The mitigation planning process that is mandated by section 322 of the Stafford Act and 44 CFR part 201 can assist State and local governments in determining where codes, specifications, and standards are inadequate, and may need to be upgraded

1.2 Assurances and Adoption

Dannel P. Malloy
GOVERNOR
STATE OF CONNECTICUT

December 17, 2018

Paul Ford, Acting Regional Administrator
FEMA Region 1
99 High Street, 6th Floor
Boston, MA 02110-2132

RE: State Hazard Mitigation Plan Adoption

Dear Administrator Ford:

I am pleased to present and formally adopt the 2019 Connecticut Natural Hazards Mitigation Plan Update (NHMP). The NHMP was prepared by the Department of Emergency Services and Public Protection (DESPP), and the Department of Energy and Environmental Protection (DEEP) pursuant to the requirements of 44 CFR 201 and the State Mitigation Plan Review Guide (2016).

The NHMP is the result of a collaborative process by DESPP, DEEP, regional planning agencies, the State Hazard Mitigation Planning Team and other partners involved in response, recovery and mitigation. The NHMP describes the assessed risks associated with natural disasters and the mitigation efforts our state has taken and proposes to undertake to protect people, property and the environment from loss associated with those hazards.

The NHMP complies with the planning requirements of 44 CRF 201, keeping the State of Connecticut eligible to receive funding under all FEMA disaster assistance and hazard mitigation programs. The State of Connecticut will comply with all applicable federal statutes and regulations in effect in accordance with 44 CFR 13.11(c). Furthermore, the State will amend its plan as needed to reflect changes in State or Federal laws and statutes as required in 44 CFR13.11(c) and (d).

As the primary implementing agencies, DEEP and DESPP will coordinate with our Connecticut Interagency Hazard Mitigation Committee and all of our partners to implement the State Hazard Mitigation Strategy contained in the plan, thereby reducing Connecticut's vulnerability to natural hazards.

Dannel P. Malloy
Governor

William J. Hackett
Acting Commissioner, DESPP

Robert Klee
Commissioner, DEEP

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1.3 Planning Team

This plan was completed with planning assistance and support by the hazard mitigation staff at the Department of Emergency Services and Public Protection (DESPP), Division of Emergency Management and Homeland Security (DEMHS) and the Department of Energy and Environmental Protection (DEEP). Consulting support was provided by Dewberry Engineers Inc. and its subcontractors. The Connecticut State Hazard Mitigation Planning Team (SHMPT) and a large group of stakeholders that included Connecticut state agencies, Federal government collaborators, non-governmental organizations, and local representation attended plan development meetings and provided comments on the plan draft. Staff from FEMA Region I provided additional technical assistance and plan review.

1.4 Overview of Plan

For the 2019 update, each chapter was reviewed and reinvigorated to highlight progress since the 2014 plan adoption. Some chapters of the plan were restructured for efficiency. All of the chapters had new data integrated and the overall plan was organized to better meet the needs of the state.

Each chapter begins with a brief introduction followed by relevant information, charts, tables, and maps, which fulfill regulation requirements. The main chapters of the plan follow primary requirements of the hazard mitigation planning law:

Chapter 1.0 *Introduction and Planning Process* describes the background and authorities governing the update of the plan, activities and work of the Connecticut DESPP/ DEMHS, DEEP, SHMPT, stakeholders invited to participate in the process, the primary consultant, Dewberry, and two sub-contractors, Tetra Tech and Milone & MacBroom, Inc. The plan participants, planning process, planning products, and relevance to other related plans or state functions are described within this chapter as well.

Chapter 2.0 *Natural Hazard Identification and Risk Assessment* has three primary components. A description of Connecticut is provided that includes: Identification, Risk Assessment, and Vulnerability Analysis, with the impacts of climate change discussed where appropriate. Natural hazards affecting the state are identified, including:

- Descriptions and histories of hazards;
- Assessment of geographic extent and risk of hazards;
- Hazard specific loss estimation for state facilities, where appropriate; and
- Amplifiers, including sea level rise and climate change.

During the early formation of the 2019 plan update process it was decided to continue to focus only on natural hazards. These were condensed into fewer categories to enable use of best available data. Ice jams, removed in the 2014 plan, were added under the flood hazard section based on recent events.

The new vulnerability assessment was initiated in October 2017 with the objective of gathering and incorporating, where usable, data from local and regional plan Hazard Identification and Risk Assessments (HIRAs). The current regional and municipal plans

were analyzed and hazard rankings were captured. These were used in the state plan hazard ranking formula. Hazard information from the local plans was archived using an updated tracking spreadsheet. This tracker can be maintained as local plans are updated to facilitate the future update of the 2019 Connecticut State Plan.

The new plan HIRA and associated vulnerability analysis now provides a more comprehensive look at natural hazards challenging Connecticut's people, property, critical facilities, and natural resources. Where data allowed, hazards were ranked comparatively on a county basis using algorithm-based evaluation methods using parameters such as population, population projections, building permit, hazard occurrence, probability, and local hazard mitigation plan scores. Where data was insufficient to provide a formula-based analysis, a detailed hazard description is provided and the hazard is characterized geographically, to the extent practicable. Data gaps are listed, along with strategies to continue to develop analytical data sets for the hazards that require a more analytical analysis.

Chapter 3.0 *Capability Assessment* combines the previous Capability Assessment and Mitigation Programs Chapters into one. This chapter emphasizes the changes in State government agency organization in Connecticut and significantly expands on the capabilities and initiatives that have resulted from government reorganization and increased focus on drought and climate adaptation. There is also emphasis in this chapter on programs available for technical assistance and funding of mitigation actions. It is expanded to include non-state and local programs that also influence mitigation in Connecticut.

Chapter 4.0 *Coordination with Local Mitigation Planning Efforts* describes a comprehensive five-year process to engage all Connecticut communities in hazard mitigation planning. It summarizes the status of plans in Connecticut, projects that have been implemented or funded by FEMA grant programs, and the process by which the State of Connecticut provides financial and technical assistance for local planning, as well as its review and approval process. A summary of vulnerability identified from rolling up the local plans is provided. Details on vulnerability data derived from the local plans is discussed in Chapter 2.

Chapter 5.0 *Hazard Mitigation Strategy* presents the mitigation goals, objectives, strategies, and associated actions identified to reduce the risk from hazards across the state. The section presents the program strategies and projects with complete rankings for importance to reduce exposure to hazards, along with an analysis of their feasibility using the STAPLE/E criteria. The table of identified actions further includes project leads, cost estimates and other information. A complete listing of evaluated 2014 actions is also presented. The evaluation includes the status of the 2014 actions with explanations on progress. Many actions that were determined to be ongoing capabilities or standard operating activities were moved to Chapter 3 – Capability Assessment. Emphasis was placed on diversifying the actions to meet changing vulnerabilities and on expanding the entities involved in "owning" actions to a more diverse range of state agencies and others. A plan to address Repetitive and Severe Repetitive Loss properties is included in Chapter 2.0 with related strategies included in Chapter 5.0.

Chapter 6.0 *Plan Monitoring, Maintenance, and Revision* outlines implementation of the plan and development of the anticipated 2024 plan revision. Processes used to maintain and update data and information contained in the hazard identification and vulnerability assessment are described, as are implementation progress review and reporting techniques. This chapter details progress reviews and provides a detailed schedule for monitoring maintenance, implementation, and revision.

Appendices are found immediately following the plan. These provide detailed listings and agendas from each plan update meeting that was held, new MS Excel tracking tools, results from the surveys and other outreach, and other relevant documents supporting the plan or its production.

1.5 Planning Process

As noted in Section 1.3, the 2019 Connecticut State Hazard Mitigation Plan Update was conducted through a process which involved a review of the Plan by the staff of the Department of Emergency Services and Public Protection (DESPP), Division of Emergency Management and Homeland Security (DEMHS) and the Department of Energy and Environmental Protection (DEEP), and Dewberry, its consultant. Additionally, revisions to the Plan were made based upon the updated 2019 hazard analysis which was created based on new data and processes, as well as the results of the analysis of local mitigation plans. The process was also informed by the 2014 FEMA review crosswalk and with the input of a more inclusive planning team.

1.6 Overview of the Planning Process

The planning process for the 2019 Connecticut State Hazard Mitigation Plan Update was initiated by the Connecticut DESPP/DEMHS and DEEP and supported by Dewberry, and two subcontractors, Tetra Tech and Milone & MacBroom, Inc., who provided capacity and technical support to the State Mitigation staff.

The contractor and DESPP Core Planning Team concurred upon the following strategy to update review of the plan:

1. Three meetings of the SHMPT and additional stakeholders would be conducted at DESPP Headquarters at pre-identified monthly intervals to maximize team time, through completion of the first review draft;
2. Update of the HIRA and Vulnerability Analysis was a priority. All available data sets, including the National Centers for Environmental Information, would be used;
3. All reasonable attempts would be made to incorporate improved state and critical facility data;
4. Stakeholder diversification and involvement would be a priority;
5. The local plan upload would continue to include a MS Excel Tool to enable DESPP/DEMHS staff to maintain status as local plans are updated and mitigation actions are completed beyond this plan update; and
6. After posting the draft plan in mid-November 2018, for team, stakeholder and public comment, a late November Final Plan Review meeting would be hosted with the

DESPP Core Team in order to receive and discuss comments, prior to producing a revised draft for delivery to FEMA in mid-November 2018.

Many of the planning activities were completed concurrently throughout the winter and spring of 2018. Datasets from Connecticut and national open sources were gathered and databases to support GIS mapping were developed. Continued development of an inventory of state facilities, analysis of the recorded history of damage impacts due to natural hazards, and synthesis of GIS layers for hazards led to the prediction of probability for incurred damages to state facilities from identified natural hazards. The planning process continued to evolve to ensure comprehensive agency responses as data were developed and analyzed.

1.7 Plan Coordination

Table 1-1 identifies the core group that led data collection, coordination, stakeholder facilitation, analysis, and drafting of the plan.

Table 1-1: Plan Core Team Participants.

DESPP/DEMHS Staff Leads
Rita Stewart – Supervisor, Strategic Planning, Community Preparedness, and Grants Unit Gemma Fabris – Emergency Management Program Specialist Ken Dumais – State Hazard Mitigation Officer Brenda Bergeron – DEMHS Legal Counsel and Planning Manager Kris Wohlgemuth - Emergency Management Program Specialist
DEEP Mitigation Staff
Karen Michaels –Hazard Mitigation Planner Diane Ifkovic – State NFIP Coordinator
Dewberry
Scott Choquette – Consultant Project Manager Jessica Fleck – Resilience Planner Katie Murray – Resilience Planner Rachael Herman - HIRA Quality Lead James Mawby - Hazus Lead Jillian Browning – GIS Lead Deborah Mills – Quality Review
Tetra Tech
Cynthia Bianco – HIRA Support
Milone & MacBroom
David Murphy, PE, and Noah Slovin – Local Plan Role-Up, Capability Assessment, Mitigation Strategy Support

1.8 State Hazard Mitigation Planning Team

The SHMPT is a standing committee that advises the Connecticut Hazard Mitigation Program as participants in mitigation plan updates and other ad hoc program and policy issues. The committee members served as the key technical advisors on mitigation program matters during this update. The SHMPT is made up of representatives of key state agencies whose programs and interests are integral to implementation of the state's hazard mitigation program. The Committee met on several occasions to discuss the plan development process and guide the overall update of the 2019 plan document. Nearly every member of the SHMPT attended the meetings and provided data, specific plan section reviews, and other technical support throughout the planning process. The members of the SHMPT are listed in Table 1-2.

Table 1-2: State Hazard Mitigation Planning Team (additional members)

Team Member	Agency
George Bradner	CT Department of Insurance (Chair of Long Term Recovery Committee)
Brian Thompson	CT DEEP – Inland Water Resources - Director
Bruce Sherman	CT Department of Agriculture
Mark DeCaprio	CT DEEP – Emergency Response and Spill Prevention
Douglas Royalty	CT Department of Economic and Community Development – State Historic Preservation Office
Mike Miszynski	CT Conference of Municipalities
Betsy Gara	CT Council of Small Towns
Gemma Fabris	CT DESPP-DEMHS
Chris Martin	CT DEEP – Forestry
Petty Diaz	CT DEEP - Energy
Chris Brochu	CT DOT
Eugene Livshits	South Central CT Council of Governments
Francesca Provenzano	CT Department of Public Health – Water Bureau
John Field	CT DESPP – Field Coordinator
Douglas Glowacki	CT DESPP-DEMHS
Diane Ifkovic	DEEP - Inland Water Resources –NFIP State Coordinator
Henry Paszczuk	CT DESPP/DEMHS
Rebecca French	CT Department of Housing – Director of NDR and Rebuild by Design (Formerly CIRCA/UCONN)
David Kooris	CT Department of Economic and Community Development – Deputy Commissioner State Agencies Fostering Resilience - Lead
Jeff Caiola	DEEP – Resilience and Climate Change
Peter Francis	DEEP – Water Protection and Land Reuse
Rebecca Cutler	CT DAS – Construction Services
Eric Lindquist	CT OPM
Jeff Semancik	DEEP – Radiation Control
Margaret Thomas	DEEP – Connecticut State Geologist
Jack Betkoski	Public Utility Regulatory Authority and Water Planning Council
James O'Donnell	UCONN / Connecticut Institute for Resilience and Climate Adaptation (CIRCA)

An extensive list of stakeholders was invited to each of the three working sessions. Those who came to meetings and participated in the process are included in Table 1-3.

Table 1-3: Participating Stakeholders

Participating Stakeholders	Organization
William Kenny	WestCOG
Joanna Wozniak Brown	NortheastCOG
Patrick Carleton	MetroCOG
Eugene Livshits	South Central Region COG
Lynne Pike DeSanto	Capital Region COG
Bill Richards	City of Milford
Laurie Whitten	Town of East Windsor and Region 3 Long Term Recovery
Michael Licata	Town of Windham EMD
Samuel DeBurra Jr.	Town of Madison
Marty Connor	City of Torrington
James McLoughlin	Town of Coventry
Jubenal "Jay" Gonzalez	Town of South Windsor
Neil Brockway	American Red Cross
Phyllis Detwiler	American Red Cross
Mark Fangiullo	Eversource
Brian Balukonis	Silver Jackets – USACE New England Division
Kathleen Knight	CT DEEP – Air
David Kallander	CT DPH
Susan Quincy	CT DEEP – State Parks
Kiernan Wholean	CT DEEP – Air
Roberto Fernando	CT DOT
Michael Hage	CT DPH
Binu Chandy	CT DECD
Michael Barnett	CT DECD
Eric Scoville	DESPP/DEMHS
Connie Mendolia	CT DEEP – Pollution Prevention
Lisa Park Boush	University of Connecticut
Bill Perkins	Capital Region COG
Doug Dalena	Governor's General Council
Bill Hackett	DEMHS
Matt Fulda	Metro COG

1.9 Stakeholder Involvement and Meetings

The involvement of a large array of stakeholders during the planning process was considered a vital element to the success in developing a FEMA-compliant plan. Traditional agency stakeholders were sought from state and federal agencies and local jurisdictions across the state. These stakeholders provided critical input to each step in the plan update

process. They shared inventories of state facilities, database layers identifying risk to structures from various hazards, and participated in the refinement of the 2014 mitigation goal and development of 2019 mitigation actions.

Stakeholders participated in all of these meetings at DEEP headquarters, with more than 35 people involved in the kick-off meeting, during this five month planning process. These meetings provided a forum for discussion on hazard identification and assessment methods for a variety of hazards, and the refinement and development of the plan goals and strategies. Please refer to Appendix 1-2 for documentation on all of the Committee Meetings.

The following is a synopsis of the planning process meetings:

1.9.1 Preliminary Project Management Meeting

September 17, 2017

The Core Team held a kick-off meeting at DESPP/DEMHS headquarters. At the meeting time was spent establishing the composition of the Core Team, State Hazard Mitigation Planning Team and Participating Stakeholders. The overall schedule was reviewed and revised and tentative dates were established for the team meetings. A working session was held to discuss anticipated major changes to include in the plan update, including the core hazards, increased emphasis on climate change and adaptation, and changes in and availability of datasets.

1.9.2 SHMPT Project Kick-off Meeting

October 31, 2017

The kick-off meeting of the SHMPT and Stakeholders was hosted by the DEEP. At the kick-off meeting, the requirements of Section 322 of the 2000 Stafford Act were presented along with the project schedule, schedule of meetings, proposed HIRA methodologies and a review of the 2014 plan goals and objectives. Data collection needs were presented and participants were provided with worksheets designed to collect information on available data, capabilities, new initiatives and potential projects and actions. Previously identified hazards were discussed in consideration of disaster activity since the last plan and all natural hazards were reprioritized and grouped into categories.

Figure 1-1: Kick-Off Meeting Overview Presentation

Additional tools and templates were also presented and ranking formulas were confirmed so that the weighting algorithm could be finalized to hasten the hazard ranking process. Additional topics covered during the meeting included:

- FEMA state hazard mitigation plan update rule requirements
- HIRA and Vulnerability Analysis update
- Data needs
- Confirmation of hazards to profile
- Ranking protocols
- Map templates
- Climate change and sea level rise
- Organization of HMA grant data, MS Excel workbooks, and tools
- Outreach Methods – website, public survey, regional outreach open houses
- Communication, next steps

1.9.3 HIRA Progress/Capability Assessment/Local Plan Roll-Up Presentation and Goals and Strategies Development Meeting

May 9, 2018

Preliminary progress on the Hazard Identification, Risk Assessment (HIRA) and resultant Vulnerability Analysis was presented along with final data needs. The results of the local plan analysis and roll-up were also presented. Following these presentations, the goals, objectives and strategies were revisited in the context of the results of the local plan analysis. The second half of the meeting focused on the initial definition of mitigation actions in breakout groups arranged by departments.

Figure 1-2: Stakeholder Meeting No. 2

Each breakout group was led by an experienced mitigation planner, either from DEEP, DESPP/DEMHS, or the consulting team. These individuals facilitated and recorded the group as they began to develop mitigation actions to address the natural hazard vulnerabilities presented at the meeting.

1.9.4 Draft Plan Review and Mitigation Action Development Workshop Meeting

October 26, 2018

A two hour working session was conducted on October 26th, 2018. The draft plan was presented to the SHMPT and stakeholders, with an emphasis on significant changes made since the 2014 plan update. Review of the disposition of actions identified in the 2014 plan was conducted, and new actions further developed in light of the HIRA and Capability Assessment results. A ranking of mitigation actions that were identified at the previous

meeting and subsequent to the meeting was completed using the STAPLE/E methodology outlined in Chapter 5. Table 1-4 shows the STAPLE/E criteria used in the ranking.

Table 1-4: STAPLE/E Review and Selection Criteria for Alternatives

Social
• Is the proposed action socially acceptable? • Are there equity issues involved that would mean that one segment of a community is treated unfairly? • Will the action cause social disruption?
Technical
• Will the proposed action work? • Will it create more problems than it solves? • Does it solve a problem or only a symptom? • Is it the most useful action in light of other community(s) goals?
Administrative
• Can the community(ies) implement the action? • Is there someone to coordinate and lead the effort? • Is there sufficient funding, staff, and technical support available? • Are there ongoing administrative requirements that need to be met?
Political
• Is the action politically acceptable? • Is there public support both to implement and to maintain the project?
Legal
• Is the community(ies) authorized to implement the proposed action? Is there a clear legal basis or precedent for this activity? • Are there legal side effects? Could the activity be construed as a taking? • Is the proposed action allowed by a comprehensive plan, or must a comprehensive plan be amended to allow the proposed action? • Will the community(ies) be liable for action or lack of action? • Will the activity be challenged?
Economic
• What are the costs and benefits of this action? • Do the benefits exceed the costs? • Are initial, maintenance, and administrative costs taken into account? • Has funding been secured for the proposed action? If not, what are the potential funding sources (public, non-profit, and private)? • How will this action affect the fiscal capability of the community(ies)? • What burden will this action place on the tax base or local economy? • What are the budget and revenue effects of this activity? • Does the action contribute to other community goals, such as capital improvements or economic development? • What benefits will the action provide?
Environmental
• How will the action affect the environment? • Will the action need environmental regulatory approvals? • Will it meet local and State regulatory requirements? • Are endangered or threatened species likely to be affected?

Over 40 comments on the draft plan were received from the following individuals and entities and incorporated into the plan between November 1st, 2018 and November 19th, 2018:

- Douglas Royalty, State Historic Preservation Office
- Diane S. Ifkovic, State NFIP Coordinator
- Connie Mendolia, Pollution Prevention Division
- Christopher Martin, DEEP
- Gregory J. Lowrey, EMD, Marlborough
- Karen A. Michaels, Land and Water Resources Division, DEEP
- John P. Guszkowski, Planner, CME Engineering
- Christine Nelson, Director, Land Use Department, Town of Old Saybrook

The draft plan was also posted to the DESPP/DEMHS Facebook and Twitter pages, and emailed out to all Chief Elected Officials and Emergency Management Directors in all municipalities in the State.

1.9.5 Additional Stakeholder Input Points

Throughout the planning process there were briefings and other input points for stakeholders. They are outlined below:

October 27, 2017 – DESPP/DEMHS Regional Coordination Meeting

Regional Emergency Planning Teams, (REPT) are formal boards that operates under the jurisdiction of the Department of Emergency Services and Public Protection (DESPP) Division of Emergency Management and Homeland Security (DEMHS). The REPT boards are composed of the Chief Elected Official (CEO) of each of the member towns. Each REPT has a lead and regional collaboration meetings are held quarterly. Emergency Managers and Regional Planners typically staff the REPTs. The United States Geologic Survey (USGS), Councils of Government (COGs), and the State Department of Public Health also participate. At this meeting, Brenda Bergeron of the Core Team provided an update on the mitigation plan update, provided an agenda for the kick off meeting scheduled on October 31st, 2018, and encouraged attendance and participation.

January 11, 2018 - DEMHS Statewide Emergency Management and Homeland Security Advisory Council Meeting

The advisory council was founded in 2014 and operates as the DEMHS advisory board, under Connecticut General Statues (CGS) Section 4-8. The advisory Council's authority also derives from CGS, Titles 28 and 29. Its mission is to protect the people and property in the State from all types of natural and human-made disasters, fostering regional collaboration and mutual aid through research, collaborative plan development, resource and information sharing, and coordination. The composition of the Council includes Commissioners of State agencies, representatives of the Connecticut Conference of Municipalities, Connecticut Council of Small Towns, Regional Planning Organizations, and other local representation. In addition to state and local leaders, Federal agency representatives and non-government organizations are represented.

On the January 11, 2018 meeting of the Council, Brenda Bergeron of the Core Team briefed the Council on the status of the plan update, mitigation grant funding and ongoing projects

that were eligible for funding as a result of having an approved plan. Ms. Bergeron encouraged the leaders represented to have active participation in the planning process.

January 26, 2018 – DESPP/DEMHS Regional Coordination Meeting

The make-up of the REPTs and the purposes of these collaboration meetings are described above, under the October of 2017 meeting. At this meeting, Rita Stewart gave a briefing on the plan update, and again encouraged participation in the planning process.

August and September 2018 – FEMA Region I Courtesy Review of the Hazard ID and Risk Assessment Draft.

In August of 2018, a draft of the HIRA Chapter was provided to FEMA Region I to conduct a courtesy review. Most comments received are included in this draft.

1.10 Public Outreach

Public participation for the update of the Plan was primarily enabled through participation in an internet-based survey and posting of the Draft 2019 Connecticut State Hazard Mitigation Plan Update to DEMHS's main webpage. The draft plan was also posted to the DESPP/DEMHS Facebook and Twitter pages, and emailed out to all Chief Elected Officials and Emergency Management Directors in all municipalities in the State.

Distribution of the online survey is discussed in the subsection below.

1.10.1 Online Public Survey

For the 2018 plan update, a survey was developed to solicit input from the public on local mitigation activities and strategies. The survey was opened and posted online in May 2018 and closed in July 2018. Links to the survey were available on the CT DEEP website, shared at public workshops, and publicized in local news outlets. Paper survey forms were also brought to workshops. Survey answers were reviewed for consideration in updating all sections of the plan, in particular the challenges and strategies sections.

In all, 41 people responded to the survey; 14 of those responded as representatives of municipal departments, 1 as a representative of a state agency, and 1 as a representative of a conservation association (Connecticut Forest & Park Association). The other 20 respondents were members of the public who are residents of the State.

The survey asked about natural hazard and hazard mitigation awareness. About one third (34%) of respondents (11 individuals) were not aware of the statewide Hazard Mitigation Plan prior to taking the survey, while 44% (14 individuals) were not sure whether their own community had a Hazard Mitigation Plan. Regarding natural hazard events 30 respondents noted specific recent events that had made them more aware of the danger of natural hazards. The most frequently cited event was Superstorm Sandy in October 2012 (23 people selecting), followed by the severe storms in May 2018 (20 selecting), Tropical Storm Irene in August 2011 (19 selecting), and Winter Storm Alfred in October 2011 (18 selecting).

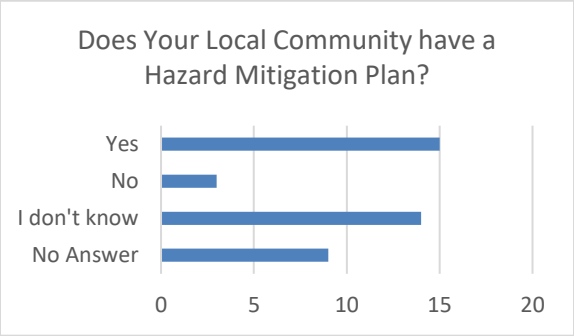

Figure 1-3: Awareness of Local Hazard Mitigation Plans

Respondents were asked to rate their concern about different natural hazards as low, moderate, or high. Taking a "weighted average" of the results yields a prioritized list of hazard concerns in the state.

Table 1-5: Natural Hazards Impacting Homes and Businesses

Natural Hazard	Respondent Level of Concern (Weighted, max is 3.0)	Historically Impacted Respondent
Winter Storms & Blizzards	2.55	22
Hurricanes & Tropical Storms	2.42	21
Severe Thunderstorms (including hail, lightning)	2.26	16
Climate Change	2.03	5
Flooding	1.84	13
Tornadoes / Downbursts	1.81	16
Drought & Severe Heat	1.77	7
Dam Failure (may be caused by other hazards)	1.61	0
Erosion & Shoreline Change	1.61	2
Sea Level Rise	1.55	4
Wildfires	1.33	1
Earthquakes	1.26	0
Wildfires & Brush Fires	1.26	2
Ice Jams	1.26	1
Landslides	1.10	0
Sinkholes or Subsidence	1.07	0

Winter storms, hurricanes and tropical storms, severe thunderstorms, climate change, flooding, and tornadoes/downbursts are the top concerns for survey respondents. Climate change is a top concern despite the fact that few respondents feel they have already been impacted by it.

Respondents were asked to identify specific locations of hazard concern. Responses are summarized Table 1-6, Table 1-7, and

Table 1-8, below.

Table 1-6: Specific Locations of Hazard Concern

Community	Total Number of Mentions	Specific Hazard Mentions			
		Coastal Flood	Inland Flood	Dam Failure	Other Storm
Milford	4	4	0	0	0
Westbrook	4	4	0	0	0
Vernon	3	0	0	0	0
Westbrook	2	2	0	0	0
Stratford	2	1	1	0	0
Canton	2	0	2	0	0
East Haddam	2	0	1	1	0
Madison	2	2	0	0	0
Easton CT	2	0	0	1	1
Brookfield	1	0	0	0	0
Meriden	1	0	1	0	0
Seymour	1	0	0	1	0
Granby	1	0	1	0	0
TOTAL*	**27**	**15**	**6**	**4**	**1**

** Total row includes answers that cite a specific hazard but not a specific community, and therefore figures may be larger than the sum of the community-specific mentions.*

Table 1-7: Flood Sources for Noted At-Risk Areas

Flood Source*	Total Number of Locations
Coastal	15
Housatonic River	3
Connecticut River	3
Farmington River	2
Unspecified	8

**Note: flood sources were not usually explicitly mentioned but were inferred for this table*

Table 1-8: Hazards Mentioned for At-Risk Areas

Hazard*	Total Number of Locations
Coastal Flood	15
Inland Flood	6
Dam Failure	4
Ice Jam Flooding	1
Other Storm	1

**Note: hazard type was not always explicitly mentioned but was inferred, when possible, for this table*

Respondents tended to be very aware of coastal and inland flood hazard locations.

The survey asked about different methods for receiving alerts and information about natural hazards, and whether respondents use each method "never," "occasionally," "frequently," or "always." Taking a "weighted average" of the results yields a list of communication methods in the state ranked in order of most used to least used. Respondents were also asked about preferred methods of communication moving forward.

Table 1-9: Methods of Communication, In Order from Most- to Least-Used

Communication Measure	Historic Likelihood of Use (Weighted, max is 3.0)	Preference (number selecting)
Automated Phone Call	2.84	20
Television	2.71	14
Text Message	2.50	24
Radio	2.38	8
Municipal or State Website	2.31	9
Smartphone App	2.07	5
Facebook	1.97	4
Electronic Road Signs	1.76	4
Twitter	1.64	2
Neighbors	1.59	1
Emergency Alert Sirens	1.53	4
Other Social Media	1.46	2
Door-to-door Visits by Officials	1.11	2

These results indicate that the methods of contacting residents with hazard information that were historically most successful were automated phone calls, televised announcements, text messages, and radio broadcasts. Moving forward, the preferred

methods of receiving information are text messages, followed by automated phone calls and television.

Respondents were asked about the most important things that the state can do to help communities prepare for a disaster. Answers are summarized below:

Table 1-10: Most important things the State can do to help communities be prepared for a disaster, and become more resilient over time

State Action	Number Selecting
Provide technical assistance to residents, businesses, and organizations to help them reduce losses from hazards and disasters	19
Help improve warning and response systems to improve disaster management	18
Provide outreach and education to residents, businesses, and organizations to help them understand risks and be prepared	16
Make it easier for residents, businesses, and organizations to take their own actions to become more resilient to disasters	15
Make it easier for communities to provide this education and technical assistance	14

Other actions suggested by respondents included:

- Microgrids
- Mandate training for elected officials and department heads
- Bury electrical wires
- Educate consumers
- Assist with tree removal
- Install tornado sirens

The survey asked about actions that local communities can take to help residents prepare for a disaster. Answers are summarized below:

Table 1-11: Most important things each Community can do to help residents be prepared for a disaster, and become more resilient over time

State Action	Number Selecting
Provide outreach and education to residents, businesses, and organizations to help them understand risks and be prepared	20
Make it easier for residents, businesses, and organizations to take their own actions to mitigate for hazards and become more resilient to disasters	13
Conduct projects in the community, such as drainage and flood control projects, to mitigate for hazards and minimize impacts from disasters	12
Improve warning and response systems to improve disaster management	12
Provide technical assistance to residents, businesses, and organizations to help them reduce losses from hazards and disasters	11
Enact and enforce regulations, codes, and ordinances such as zoning regulations and building codes	9

The survey asked about actions individuals have taken to reduce the risk to or vulnerabilities of their families, homes, or businesses. Responses are summarized below.

Table 1-12: Individual Risk Reduction Actions

Action	Number Selecting
Maintain a disaster supply kit for my family, home, or business	14
Developed a disaster plan for my family, home, or business	13
Taken measures to reduce snow build-up on roofs	8
Cut back or removed vegetation from my overhead utility lines or roof	8
I have not taken any of these actions	6
Managed vegetation to reduce risk of wildfire reaching my home or business	5
Installed storm shutters or structural/roof braces to reduce wind damage	2
Elevated my home or business to reduce flood damage	1
Floodproofed my business to reduce flood damage	1
Replaced my overhead utility lines with underground lines	1

The most common activities are maintaining disaster kits, developing disaster plans, reducing snow build-up on roofs, and managing vegetation. One respondents listed purchasing flood and earthquake insurance. In the final two questions of the survey, respondents were asked to describe one action that they would like to see performed by the State to reduce risks from natural hazards, and to provide any other thoughts or comments.

Analysis of the open-ended responses showed that educating both the public and municipal and state staff was the most commonly mentioned action that respondents would like to see. Significant concern over the resilience of the power grid and other utilities was also reflected in the results. Finally, many respondents expressed that the State's goal should be

to make residents more self-reliant and resilient following natural disasters, rather than depending on the State and local governments.

1.11 Summary of Other Input

Beginning on November 2, 2018, hyperlinks to the draft plan were provided on DEMHS's and DEEP's webpages and an internal post on it intranet page. Figure 1-4 and Figure 1-5 show screen shots of the DEMHS Home Page and Natural Hazard Mitigation Plan Page, and Figure 1-6 and Figure 1-7 show screen shots of the DEEP Home Page and Natural Hazard Mitigation Plan Page, inviting public comment on the draft.

Figure 1-4: DEMHS Home Page

Figure 1-5: DEMHS Natural Hazard Mitigation Plan Page

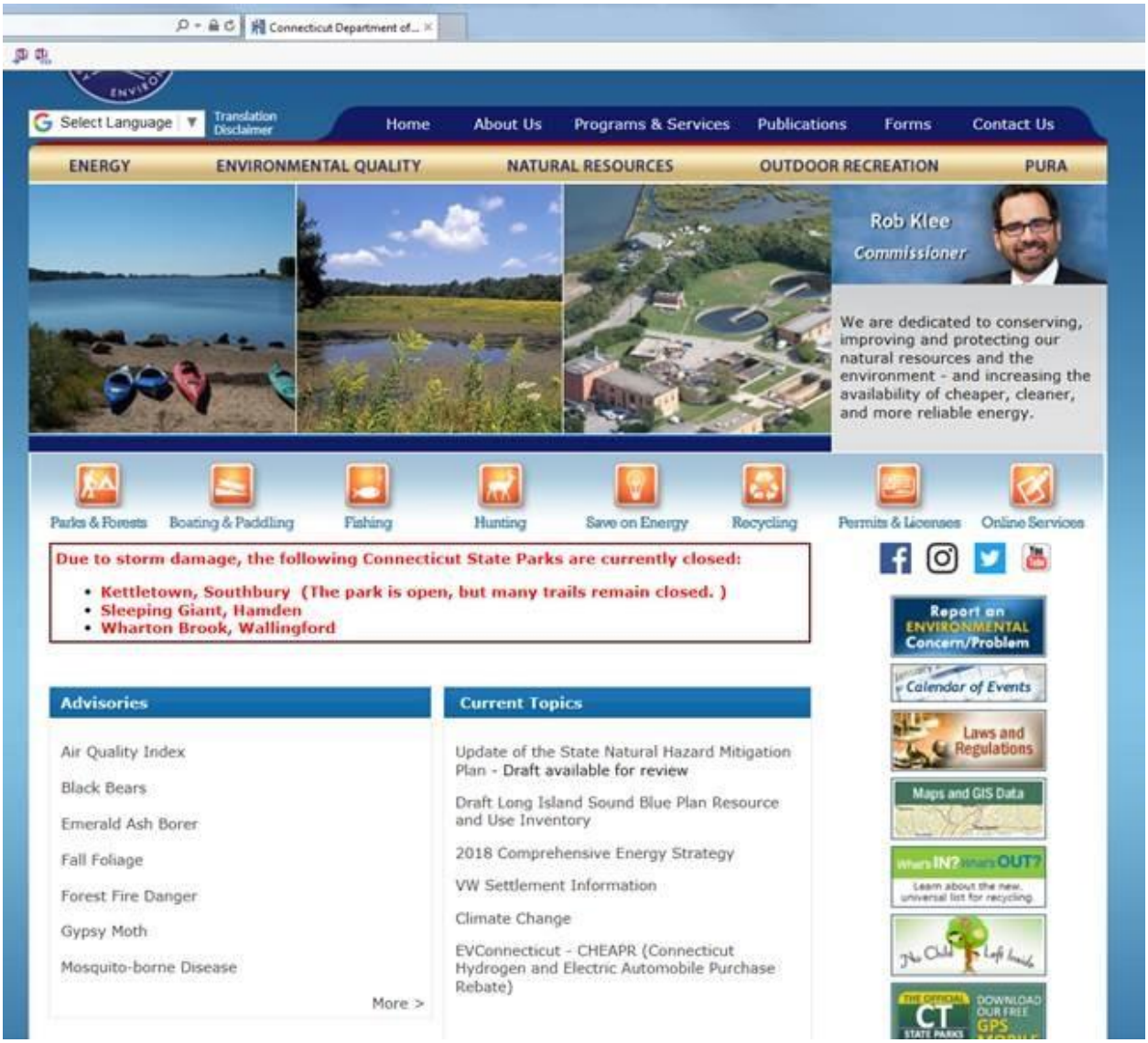

Figure 1-6: DEEP Home Page

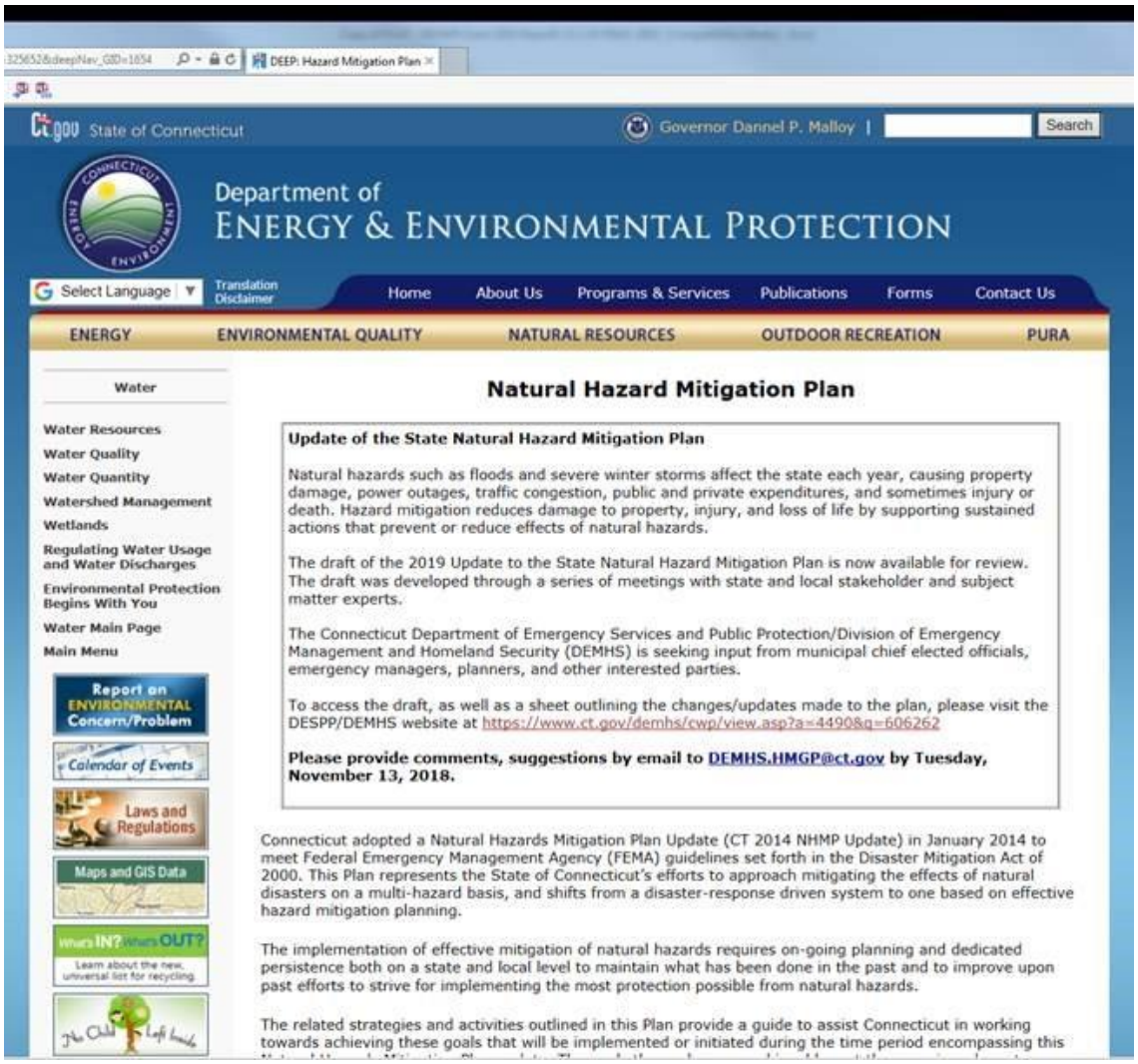

Figure 1-7: DEEP Natural Hazard Mitigation Plan Page

In addition to comments received from the public as a result of the public survey, and comments received from the SHMPT and larger stakeholder groups, comments were also received and incorporated from:

- Douglas Royalty, State Historic Preservation Office
- Diane S. Ifkovic, State NFIP Coordinator
- Connie Mendolia, Pollution Prevention Division
- Christopher Martin, DEEP
- Gregory J. Lowrey, EMD, Marlborough
- Karen A. Michaels, Land and Water Resources Division, DEEP
- John P. Guszkowski, Planner, CME Engineering
- Christine Nelson, Director, Land Use Department, Town of Old Saybrook

These individuals are also included in the list of stakeholders providing comments contained in Subsection 1.9.4.

2 Natural Hazard Identification and Risk Assessment

2.1 Introduction

In developing a comprehensive Natural Hazard Mitigation Plan, the first step is to determine what hazards threaten the state and the extent of the risk they pose to the lives and property of the state's residents and its economy. This chapter presents an overview of the hazard identification and risk assessment (HIRA) process. Once identified and analyzed, the hazards were ranked to determine the highest risks to Connecticut. Finally, based on the history of occurrences and exposure, the vulnerability assessment and loss estimates elaborate on potential impacts of the hazards that pose the highest risks.

The hazards impacting Connecticut have been analyzed using geographic information systems (GIS) and available historical information. This allows for comparison between counties of the relative exposures to hazards and sets the groundwork for local hazard mitigation plan updates. It should be noted that hazards in the State Plan are ranked and analyzed in terms of relative risk to local jurisdictions within the state. All the hazards addressed in the plan are only relevant to Connecticut.

2.1.1 HIRA Updates and Changes

As with the previous plan update, the Hazard Mitigation Planning Team (SHMP Team) decided that the results and analysis should be done at a regional scale since 170 current and updated local plans (out of 174 total communities[2]) provide community-specific information. The state plan presents the general findings from the local plan and summarizes them at a county-wide and state-wide level. In addition, the majority of hazard and federal data is only available at the county-level. The 2011 State Plan risk assessment documented that Connecticut is not at risk for landslide, land subsidence, or volcanoes; this observation remains valid so those hazards are not profiled in this update.

To ensure a comprehensive risk assessment, the SHMP Team decided not to disqualify a hazard without at least conducting a preliminary hazard identification and risk assessment. Climate change is addressed in detail in Section 2.4, and in each hazard specific section as a hazard risk amplifier.

In the previous plan, CT DEEP Dam Safety indicated that ice jams had not occurred since 2010 and were subsequently removed as a separate hazard in the HIRA. The project that was completed on the Salmon River aided in the reduction of ice jams on that watercourse. Due to the recent recurrence of Ice jams in both 2015 and 2018, the hazard has been included in the Flood portion of the HIRA. Tsunamis have been removed from consideration

[2] Connecticut has 169 municipalities; the additional four communities include the two tribal governments and the political subdivisions of Groton and Stonington and Fenwick. Six plans have expired (Shelton, Ansonia, Derby, Seymour, Guilford, and East Haven). Of those, two (Guilford and East Haven) are in the updated SCRCOG HMP which is under review by DEMHS as of May 2018. There is no current plan for the plans to be updated for Shelton, Ansonia, Derby, and Seymour.

due to their low probability of occurrence. Appendix 2 includes archived information on tsunamis in Connecticut.

In addition to the HIRA being vital for state and local planning purposes, the Red Cross uses the analysis from the HIRA as the basis for their large scale disaster planning.

Local plans were evaluated to make sure all hazards identified at the local level were included as part of this revision. Chapter 4 describes local plan hazards identification and incorporation of local hazard data into the state mitigation plan hazard analysis.

The Hazard Identification, Risk Assessment and Vulnerability Analysis chapter of the 2019 plan update consolidates, updates, and streamlines content from the previous plan. Sections have been reorganized for ease of review for the reader, including alphabetization of hazards. Chapter content was restructured to address a broad range of emerging hazards, vulnerabilities and risk issues.

In addition, hazard profiles were restructured, and new analyses were performed using updated National Centers for Environmental Information (NCEI) Storm Events data as well as other data sources to capture hazard events that occurred since 2013.

The analysis of state and critical facilities was updated to reflect additional data provided by the State. Estimates and extrapolation of building and content values for numerous counties were replaced with actual values if available.

2.1.2 Data Collection

To update the risk assessment, data was collected from a variety of sources. The assessment began with a thorough review of all the local hazard mitigation plans available in the state. Chapter 4 describes local plan integration into the state plan. While the local plans were a valuable source for qualitative data, additional quantitative data sources were used to determine the jurisdictions most threatened by each hazard. Sources included national databases, published materials, expert interviews, and information from a number of state and federal agencies, as well as university-state partnerships.

To assess the vulnerability of different jurisdictions to each specific hazard, information on damaging hazard events was gathered. This enabled a comparison of the distribution of events between different hazards. In addition, the same data sources were used as appropriate to create hazard profile maps. The primary source of information used to analyze past hazard events and to rank hazards was the NCEI Storm Events database. Hazard data was supplemented with sources such as:

- NOAA National Weather Service weather station data,
- National Oceanic and Atmospheric Administration (NOAA),
- Connecticut Office of Policy and Management (OPM),
- Connecticut Department of Transportation (CTDOT),
- Connecticut Department of Energy & Environmental Data (DEEP), and
- Connecticut Institute for Resilience & Climate Adaptation (CIRCA).

Other hazard-specific sources are described in each hazard section.

Chapter 3 describes programs, policies, and task force/subcommittees which Connecticut can use to support with natural hazard mitigation initiatives and projects.

During 2013, the Connecticut GIS Council was dissolved and the Office of Policy and Management (OPM) became the successor to the GIS Council. OPM is responsible for coordinating, within available appropriations, a GIS capacity for the state, regional planning agencies, municipalities, and others as needed. OPM guides and assists state and local officials involved in transportation, economic development, land use planning, environmental, cultural, and natural resource management, public service delivery, and other areas as necessary. For the 2019 plan update, OPM provided updated critical facilities data and assisted in the building and content value updates to state owned facilities.

2.2 General Description of Connecticut

Connecticut is a "home rule" state where nearly all decisions are made at the municipal level. Planning and implementation of actions to reduce the impacts of hazards must happen locally. As outlined in Chapter 3, the State provides significant guidance and assistance. The SHMP Team made a committee decision during 2012 to complete vulnerability analysis and show results at a county-level for the SHMP. This methodology has been maintained for the 2019 Plan. The Plan is a result of the best available datasets for historical hazards and spatial hazard extents being compiled at the county-level (National datasets).

Connecticut has 169 municipalities, the Mashantucket Pequot and Mohegan tribal governments, and the political subdivisions of Groton and Stonington totaling 173 local political entities. There are 153 regional plans that provide community-specific information related to risk, capabilities, and mitigation strategies.

Table 2-1 summarizes the municipalities located within each county, type of local mitigation plan, and expiration date. Connecticut continues to work with local municipalities to update and revise their local mitigation plans and address the gaps in their vulnerability assessments and loss estimates. This state plan presents that general findings from the local plans and summarizes them at a county-wide and state-wide level in each of the hazard specific sub-sections, as well as in Chapter 4. The local mitigation tracking tool is available in Appendix 4. When available, municipality specific data have been provided in this update.

Table 2-1: Status of County and Municipality Local Hazard Mitigation Plans

(MJ= Multi-Jurisdictional, S = Single Jurisdiction)

County	Community or Tribe	Current Regional Planning Organization	2018 HMP Type	FEMA Approval Date	Expiration Date	Status
Fairfield	Bridgeport	MetroCOG	MJ	7/22/2014	7/22/2019	Current
	Easton	MetroCOG	MJ	7/22/2014	7/22/2019	Current
	Fairfield	MetroCOG	MJ	7/22/2014	7/22/2019	Current
	Monroe	MetroCOG	MJ	7/22/2014	7/22/2019	Current
	Stratford	MetroCOG	MJ	7/22/2014	7/22/2019	Current
	Trumbull	MetroCOG	MJ	7/22/2014	7/22/2019	Current
	Bethel	WestCOG	S	1/13/2016	1/13/2021	Current
	Brookfield	WestCOG	S	12/14/2014	12/14/2019	Current
	Danbury	WestCOG	S	3/8/2017	3/8/2022	Current
	New Fairfield	WestCOG	S	1/30/2017	1/30/2022	Current
	Newtown	WestCOG	S	8/7/2015	8/7/2020	Current
	Redding	WestCOG	S	8/6/2015	8/6/2020	Current
	Ridgefield	WestCOG	S	2/2/2016	2/2/2021	Current
	Sherman	WestCOG	S	3/13/2017	3/13/2022	Current
	Darien	WestCOG	MJ	5/12/2016	5/12/2021	Current
	Greenwich	WestCOG	MJ	5/12/2016	5/12/2021	Current
	New Canaan	WestCOG	MJ	5/12/2016	5/12/2021	Current
	Norwalk	WestCOG	MJ	5/12/2016	5/12/2021	Current
	Stamford	WestCOG	MJ	5/12/2016	5/12/2021	Current
	Weston	WestCOG	MJ	5/12/2016	5/12/2021	Current
	Westport	WestCOG	MJ	5/12/2016	5/12/2021	Current
	Wilton	WestCOG	MJ	5/12/2016	5/12/2021	Current
	Shelton	NVCOG	MJ	2/13/2013	2/13/2018	Expired
Hartford	Berlin	CRCOG	MJ	9/13/2016	9/13/2021	Current; Update in progress with CRCOG; anticipated 2018 submittal to DEMHS
	Bristol	NVCOG	MJ	9/13/2016	9/13/2021	Expired
	Burlington	NWHCOG	MJ	9/13/2016	9/13/2021	Current
	New Britain	CRCOG	MJ	9/13/2016	9/13/2021	Current; Update in progress with CRCOG; anticipated 2018 submittal to DEMHS
	Plainville	CRCOG	MJ	9/13/2016	9/13/2021	Current; Update in progress with CRCOG; anticipated 2018 submittal to DEMHS
	Southington	CRCOG	MJ	9/13/2016	9/13/2021	Current; Update in progress with CRCOG; anticipated 2018 submittal to DEMHS
	Avon	CRCOG	MJ	12/5/2014	12/5/2019	Current; Update in progress with anticipated 2018 submittal to DEMHS
	Bloomfield	CRCOG	MJ	12/5/2014	12/5/2019	Current; Update in progress with anticipated 2018 submittal to DEMHS

	Canton	CRCOG	MJ	12/5/2014	12/5/2019	Current; Update in progress with anticipated 2018 submittal to DEMHS
	East Granby	CRCOG	MJ	12/5/2014	12/5/2019	Current; Update in progress with anticipated 2018 submittal to DEMHS
	East Hartford	CRCOG	MJ	12/5/2014	12/5/2019	Current; Update in progress with anticipated 2018 submittal to DEMHS
	East Windsor	CRCOG	MJ	12/5/2014	12/5/2019	Current; Update in progress with anticipated 2018 submittal to DEMHS
	Enfield	CRCOG	MJ	12/5/2014	12/5/2019	Current; Update in progress with anticipated 2018 submittal to DEMHS
	Farmington	CRCOG	MJ	12/5/2014	12/5/2019	Current; Update in progress with anticipated 2018 submittal to DEMHS
	Glastonbury	CRCOG	MJ	12/5/2014	12/5/2019	Current; Update in progress with anticipated 2018 submittal to DEMHS
	Granby	CRCOG	MJ	12/5/2014	12/5/2019	Current; Update in progress with anticipated 2018 submittal to DEMHS
	Hartford	CRCOG	MJ	12/5/2014	12/5/2019	Current; Update in progress with anticipated 2018 submittal to DEMHS
	Manchester	CRCOG	MJ	12/5/2014	12/5/2019	Current; Update in progress with anticipated 2018 submittal to DEMHS
	Marlborough	CRCOG	MJ	12/5/2014	12/5/2019	Current; Update in progress with anticipated 2018 submittal to DEMHS
	Newington	CRCOG	MJ	12/5/2014	12/5/2019	Current; Update in progress with anticipated 2018 submittal to DEMHS
	Rocky Hill	CRCOG	MJ	12/5/2014	12/5/2019	Current; Update in progress with anticipated 2018 submittal to DEMHS
	Simsbury	CRCOG	MJ	12/5/2014	12/5/2019	Current; Update in progress with anticipated 2018 submittal to DEMHS
	South Windsor	CRCOG	MJ	12/5/2014	12/5/2019	Current; Update in progress with anticipated 2018 submittal to DEMHS
	Suffield	CRCOG	MJ	12/5/2014	12/5/2019	Current; Update in progress with anticipated 2018 submittal to DEMHS
	West Hartford	CRCOG	MJ	12/5/2014	12/5/2019	Current; Update in progress with anticipated 2018 submittal to DEMHS
	Wethersfield	CRCOG	MJ	12/5/2014	12/5/2019	Current; Update in progress with anticipated 2018 submittal to DEMHS
	Windsor	CRCOG	MJ	12/5/2014	12/5/2019	Current; Update in progress with anticipated 2018 submittal to DEMHS
	Windsor Locks	CRCOG	MJ	12/5/2014	12/5/2019	Current; Update in progress with anticipated 2018 submittal to DEMHS
	Hartland	NWHCOG	MJ	8/30/2016	8/30/2021	Current
Litchfield	Plymouth	NVCOG	S	9/13/2016	9/13/2021	Current
	Bethlehem	NVCOG	S	11/9/2015	11/9/2020	Current
	Thomaston	NVCOG	S	2/9/2015	2/9/2020	Current
	Watertown	NVCOG	S	6/2/2014	6/2/2019	Current
	Woodbury	NVCOG	S	6/3/2014	6/3/2019	Current
	Bridgewater	WestCOG	S	3/26/2015	3/26/2019	Current
	New Milford	WestCOG	S	1/5/2016	1/5/2021	Current
	Barkhamsted	NWHCOG	MJ	8/30/2016	8/30/2021	Current
	Colebrook	NWHCOG	MJ	8/30/2016	8/30/2021	Current
	Goshen	NWHCOG	MJ	8/30/2016	8/30/2021	Current

	Harwinton	NWHCOG	MJ	8/30/2016	8/30/2021	Current
	Litchfield	NWHCOG	MJ	8/30/2016	8/30/2021	Current
	Morris	NWHCOG	MJ	8/30/2016	8/30/2021	Current
	New Hartford	NWHCOG	MJ	8/30/2016	8/30/2021	Current
	Norfolk	NWHCOG	MJ	8/30/2016	8/30/2021	Current
	Torrington	NWHCOG	MJ	8/30/2016	8/30/2021	Current
	Winchester	NWHCOG	MJ	8/30/2016	8/30/2021	Current
	Canaan	NWHCOG	S	1/30/2015	1/30/2020	Current
	Cornwall	NWHCOG	S	12/2/2014	12/2/2019	Current
	Kent	NWHCOG	S	12/19/2014	12/19/2019	Current
	North Canaan	NWHCOG	S	1/30/2015	1/30/2020	Current
	Roxbury	NWHCOG	S	12/18/2014	12/18/2019	Current
	Salisbury	NWHCOG	S	1/30/2015	1/30/2020	Current
	Sharon	NWHCOG	S	1/14/2015	1/14/2020	Current
	Warren	NWHCOG	S	1/15/2015	1/15/2020	Current
	Washington	NWHCOG	S	2/23/2015	2/23/2020	Current
Middlesex	Chester	RiverCOG	S	9/2/2014	9/2/2019	Current
	Clinton	RiverCOG	S	8/28/2014	8/28/2019	Current
	Cromwell	RiverCOG	MJ	8/20/2014	8/20/2019	Current
	Deep River	RiverCOG	S	9/2/2014	9/2/2019	Current
	Durham	RiverCOG	MJ	8/20/2014	8/20/2019	Current
	East Haddam	RiverCOG	MJ	8/20/2014	8/20/2019	Current
	East Hampton	RiverCOG	MJ	8/20/2014	8/20/2019	Current
	Essex	RiverCOG	S	6/23/2014	6/23/2019	Current
	Fenwick	RiverCOG	S	6/2/2014	6/2/2019	Current
	Haddam	RiverCOG	MJ	8/20/2014	8/20/2019	Current
	Killingworth	RiverCOG	S	6/16/2014	6/16/2019	Current
	Middlefield	RiverCOG	MJ	8/20/2014	8/20/2019	Current
	Middletown	RiverCOG	MJ	8/20/2014	8/20/2019	Current
	Old Saybrook	RiverCOG	S	6/2/2014	6/2/2019	Current
	Portland	RiverCOG	MJ	8/20/2014	8/20/2019	Current
	Westbrook	RiverCOG	S	9/2/2014	9/2/2019	Current
New Haven	Beacon Falls	NVCOG	S	1/5/2016	1/5/2021	Current
	Cheshire	NVCOG	S	12/19/2014	12/19/2019	Current
	Middlebury	NVCOG	S	12/30/2014	12/30/2019	Current
	Naugatuck	NVCOG	S	3/2/2015	3/2/2020	Current
	Oxford	NVCOG	S	8/19/2014	8/19/2019	Current
	Prospect	NVCOG	S	2/26/2015	2/26/2020	Current
	Southbury	NVCOG	S	12/30/2014	12/30/2019	Current
	Waterbury	NVCOG	S	2/27/2015	2/27/2020	Current
	Wolcott	NVCOG	S	2/26/2015	2/26/2020	Current

	Bethany	SCRCOG	MJ	5/14/2018	5/14/2023	Current
	Branford	SCRCOG	MJ	5/14/2018	5/14/2023	Current
	East Haven	SCRCOG	MJ	5/14/2018	5/14/2023	Current
	Guilford	SCRCOG	MJ	5/14/2018	5/14/2023	Current
	Hamden	SCRCOG	MJ	5/14/2018	5/14/2023	Current
	Madison	SCRCOG	MJ	5/14/2018	5/14/2023	Current
	Meriden	SCRCOG	S	5/28/2013	5/28/2018	Current; Single-jurisdiction update under review by DEMHS in 2018
	Milford	SCRCOG	MJ	5/14/2018	5/14/2023	Current
	New Haven	SCRCOG	MJ	5/14/2018	5/14/2023	Current
	North Branford	SCRCOG	MJ	5/14/2018	5/14/2023	Current
	North Haven	SCRCOG	MJ	5/14/2018	5/14/2023	Current
	Orange	SCRCOG	MJ	5/14/2018	5/14/2023	Current
	Wallingford	SCRCOG	MJ	5/14/2018	5/14/2023	Current
	West Haven	SCRCOG	MJ	5/14/2018	5/14/2023	Current
	Woodbridge	SCRCOG	MJ	5/14/2018	5/14/2023	Current
	Ansonia	NVCOG	MJ	2/13/2013	2/13/2018	Expired
	Derby	NVCOG	MJ	2/13/2013	2/13/2018	Expired
	Seymour	NVCOG	MJ	2/13/2013	2/13/2018	Expired
New London	Lyme	RiverCOG	S	8/20/2014	8/20/2019	Current
	Old Lyme	RiverCOG	S	8/22/2014	8/22/2019	Current
	Bozrah	SCCOG	MJ	12/2017	12/2022	Current
	Colchester	SCCOG	MJ	12/2017	12/2022	Current
	East Lyme	SCCOG	MJ	12/2017	12/2022	Current
	Franklin	SCCOG	MJ	12/2017	12/2022	Current
	Griswold	SCCOG	MJ	12/2017	12/2022	Current
	Groton (City)	SCCOG	MJ	12/2017	12/2022	Current
	Groton (Town)	SCCOG	MJ	12/2017	12/2022	Current
	Ledyard	SCCOG	MJ	12/2017	12/2022	Current
	Lisbon	SCCOG	MJ	12/2017	12/2022	Current
	Montville	SCCOG	MJ	12/2017	12/2022	Current
	New London	SCCOG	MJ	12/2017	12/2022	Current
	North Stonington	SCCOG	MJ	12/2017	12/2022	Current
	Norwich	SCCOG	MJ	12/2017	12/2022	Current
	Preston	SCCOG	MJ	12/2017	12/2022	Current
	Salem	SCCOG	MJ	12/2017	12/2022	Current
	Sprague	SCCOG	MJ	12/2017	12/2022	Current
	Stonington (Borough)	SCCOG	MJ	12/2017	12/2022	Current
	Stonington (Town)	SCCOG	MJ	12/2017	12/2022	Current
	Voluntown	NECCOG	MJ	2/1/2016	2/1/2021	Current

	Waterford	SCCOG	MJ	12/2017	12/2022	Current
	Lebanon	SCCOG	MJ	12/2017	12/2022	Current
Tolland	Andover	CRCOG	MJ	12/5/2014	12/5/2019	Current; Update in progress with anticipated 2018 submittal to DEMHS
	Bolton	CRCOG	MJ	12/5/2014	12/5/2019	Current; Update in progress with anticipated 2018 submittal to DEMHS
	Ellington	CRCOG	MJ	12/5/2014	12/5/2019	Current; Update in progress with anticipated 2018 submittal to DEMHS
	Hebron	CRCOG	MJ	12/5/2014	12/5/2019	Current; Update in progress with anticipated 2018 submittal to DEMHS
	Somers	CRCOG	MJ	12/5/2014	12/5/2019	Current; Update in progress with anticipated 2018 submittal to DEMHS
	Stafford	CRCOG	MJ	12/5/2014	12/5/2019	Current; Update in progress with anticipated 2018 submittal to DEMHS
	Tolland	CRCOG	MJ	12/5/2014	12/5/2019	Current; Update in progress with anticipated 2018 submittal to DEMHS
	Vernon	CRCOG	MJ	12/5/2014	12/5/2019	Current; Update in progress with anticipated 2018 submittal to DEMHS
	Union	NECCOG	MJ	2/1/2016	2/1/2021	Current
	Columbia	CRCOG	MJ	1/11/2016	1/11/2021	Current; Update in progress with CRCOG; anticipated 2018 submittal to DEMHS
	Coventry	CRCOG	MJ	1/11/2016	1/11/2021	Current; Update in progress with CRCOG; anticipated 2018 submittal to DEMHS
	Mansfield	CRCOG	MJ	1/11/2016	1/11/2021	Current; Update in progress with CRCOG; anticipated 2018 submittal to DEMHS
	Willington	CRCOG	MJ	1/11/2016	1/11/2021	Current; Update in progress with CRCOG; anticipated 2018 submittal to DEMHS
Windham	Ashford	NECCOG	MJ	2/1/2016	2/1/2021	Current
	Brooklyn	NECCOG	MJ	2/1/2016	2/1/2021	Current
	Canterbury	NECCOG	MJ	2/1/2016	2/1/2021	Current
	Eastford	NECCOG	MJ	2/1/2016	2/1/2021	Current
	Killingly	NECCOG	MJ	2/1/2016	2/1/2021	Current
	Plainfield	NECCOG	MJ	2/1/2016	2/1/2021	Current
	Pomfret	NECCOG	MJ	2/1/2016	2/1/2021	Current
	Putnam	NECCOG	MJ	2/1/2016	2/1/2021	Current
	Sterling	NECCOG	MJ	2/1/2016	2/1/2021	Current
	Thompson	NECCOG	MJ	2/1/2016	2/1/2021	Current
	Woodstock	NECCOG	MJ	2/1/2016	2/1/2021	Current
	Chaplin	NECCOG	MJ	2/1/2016	2/1/2021	Current
	Hampton	NECCOG	MJ	2/1/2016	2/1/2021	Current
	Scotland	NECCOG	MJ	2/1/2016	2/1/2021	Current
	Windham	SCCOG	MJ	12/2017	12/2022	Current
Unaffiliated	Mashantucket Pequot Tribal Nation	SCCOG	MJ	12/2017	12/2022	Current
	Mohegan Tribe	SCCOG	MJ	12/2017	12/2022	Current

2.2.1 Geography

Connecticut contains a wide variety of landscapes. From the shores of Long Island Sound in southern Connecticut, the land gently slopes upward to rolling hills across the southern half of the State. More rugged terrain covers the northwestern and northeastern areas of Connecticut with forested hills and mountains climbing to elevations of over 2,000 feet. The Connecticut River Valley cuts through the center of the State, and several deep river valleys cut through the eastern and western sections of the State. All of these rivers generally flow from north to south and empty into Long Island Sound.

Within the State's borders there are approximately 450,000 acres of wetlands, 6,000 miles of streams and rivers, over 2,000 lakes and reservoirs, over 4,000 dams[3] and 600 square miles of estuarine water in Long Island Sound. Connecticut's shoreline and riverine areas were heavily developed for commercial, residential, and industrial uses during the past 200 years, since these areas are relatively flat, highly desirable for construction purposes, and have the ability to provide an ample supply of hydropower, a major power source of early 19th Century industrialization.

The climate of Connecticut is moderate with median annual precipitation ranges from 42 to 52 inches, and snowfall averaging between 30 inches on the coast of Long Island Sound up to 50 inches in the northwest hills. Temperatures range from highs in the 80's and 90's during the summer months, down to lows in the teens and single digits during the winter months.

Transcontinental storms (low pressure systems), and storms that form near the Gulf of Mexico and along the East Coast deliver most of the annual rain and snowfall to the State. Heavy short-duration rains are also caused by thunderstorm activity in all but the winter season. Occasional hurricanes, which typically occur between June 1st and December 1st, deliver heavy rains of longer duration. Less frequent in Connecticut are droughts, forest fires and earthquakes. Large-scale forest fires are rare in Connecticut. Fires are typically small underbrush and ground fires that rarely damage large numbers of buildings.

2.2.2 Demographics

Connecticut's demographics are a major factor in the risk posed by natural hazards. The 2010 U.S. Census Bureau population of Connecticut was 3,574,097, with 2017 estimates at 3,588,184[4]. Connecticut's population is expected to grow a modest 2.2% by 2040.[5] Fairfield, Hartford, and New Haven have the greatest density of people per square mile.

Connecticut has 169 municipalities within 8 counties covering 4,842 square miles of land area. There are four additional communities including two tribal governments, the Mashantucket Pequot and Mohegan, and the political subdivisions of Groton and Stonington. Two-thirds of the State's population and housing units are within Fairfield, Hartford, and New Haven counties. Table 2-2 and 2.3 show the 2010-2017 population by municipality and population change from 2010-2017. Bridgeport, Hartford, New Haven,

[3] http://www.ct.gov/deep/cwp/view.asp?a=2720&depNav_GID=1654&q=325632
[4] Census.gov QuickFacts Connecticut (10/2017)
[5] https://ctsdc.uconn.edu/2015-to-2040-population-projections-state-level/#data_tables

Norwalk, Waterbury, and Stamford, have the largest municipality populations in Connecticut.

Table 2-2: Census Data for the State of Connecticut

County	Population (2010)	Population (2017)	Housing Units (2017)	Land Area In Square Miles (2010)	Population Per Square Mile (2017)
Fairfield	916,829	949,921	372,981	624.9	1520
Hartford	894,014	895,388	379,719	735.1	1218
Litchfield	189,927	182,177	88,285	920.6	198
Middlesex	165,676	163,410	76,339	369.3	442
New Haven	862,477	860,435	367,195	604.5	1423
New London	274,055	269,033	123,398	664.9	405
Tolland	152,691	151,461	59,729	410.2	369
Windham	118,428	116,359	49,742	512.9	227
Total	3,574,097	3,588,184	1,517,388	4,842.4	741

Table 2-3: Population Comparison for 1990 - 2017

County	Population (1990)	Population (2000)	Population (2010)	Population (2017)	Population Change from 2010 to 2017
Fairfield	827,645	882,567	916,829	949,921	3.61%
Hartford	851,783	857,183	894,014	895,388	0.15%
Litchfield	174,092	182,193	189,927	182,177	-4.08%
Middlesex	143,196	155,071	165,676	163,410	-1.37%
New Haven	804,219	824,008	862,477	860,435	-0.24%
New London	254,957	259,088	274,055	269,033	-1.83%
Tolland	128,699	136,364	152,691	151,461	-0.81%
Windham	102,525	109,091	118,428	116,359	-1.75%
Total	3,287,116	3,405,565	3,574,097	3,588,184	0.39%

Three quarters of Connecticut counties experienced a population decrease between 2010 and 2017, with Fairfield and Hartford Counties the only areas that experienced population growth. Despite modest population growth during the past 17 years, since 2010 the state has had only 0.4% population growth according to US Census Bureau estimates. While low population growth has detrimental impacts on economic prosperity, static growth provides stability in hazard exposure. This aides disaster planning for new development and fewer

populations moving into vulnerable areas.

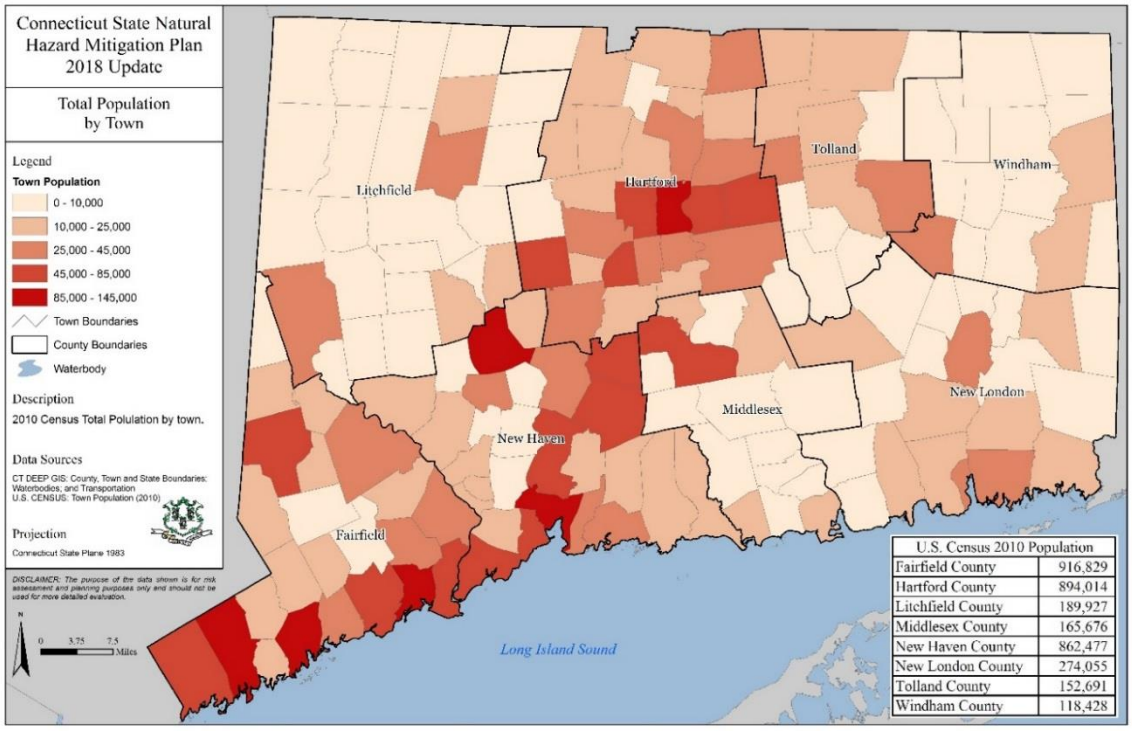

Figure 2-1 shows the total population of Connecticut municipalities, and

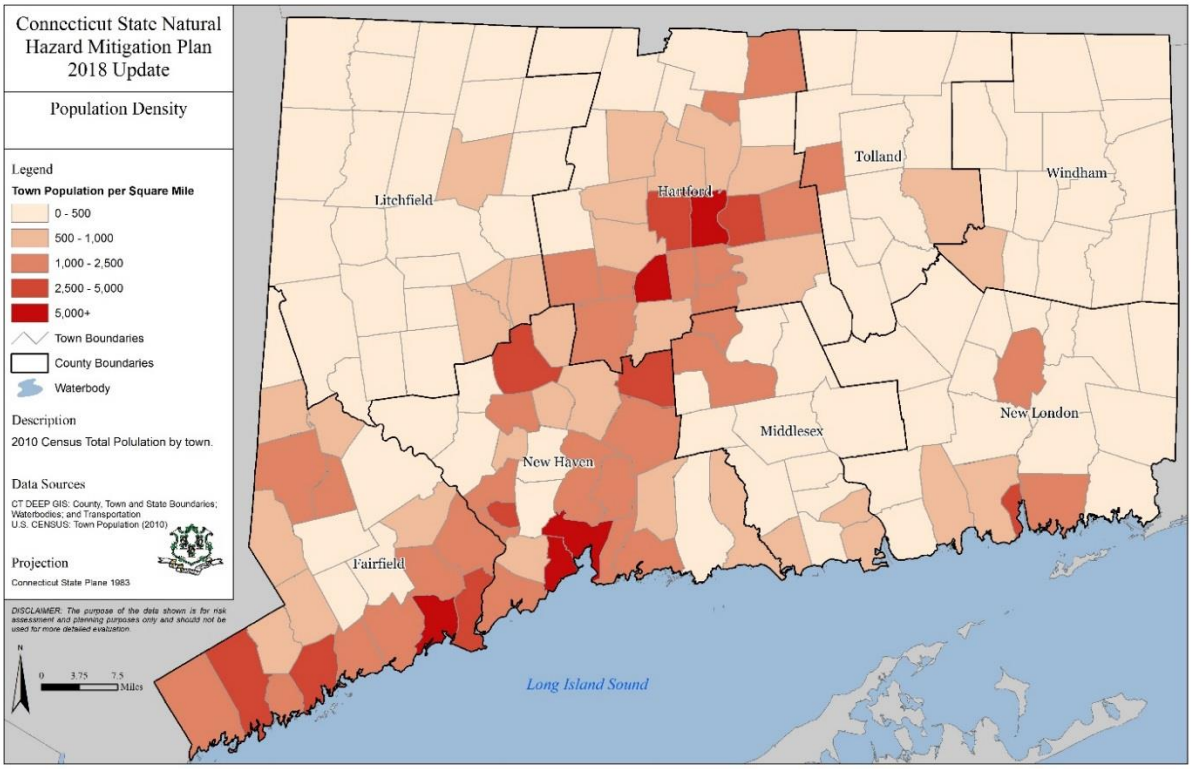

Figure 2-2 displays the population density by municipality. Notable population centers include Hartford, New Haven, Waterbury, Bridgeport, Norwalk, and Stamford. Connecticut's densest communities are Hartford, New Haven, and Fairfield Counties.

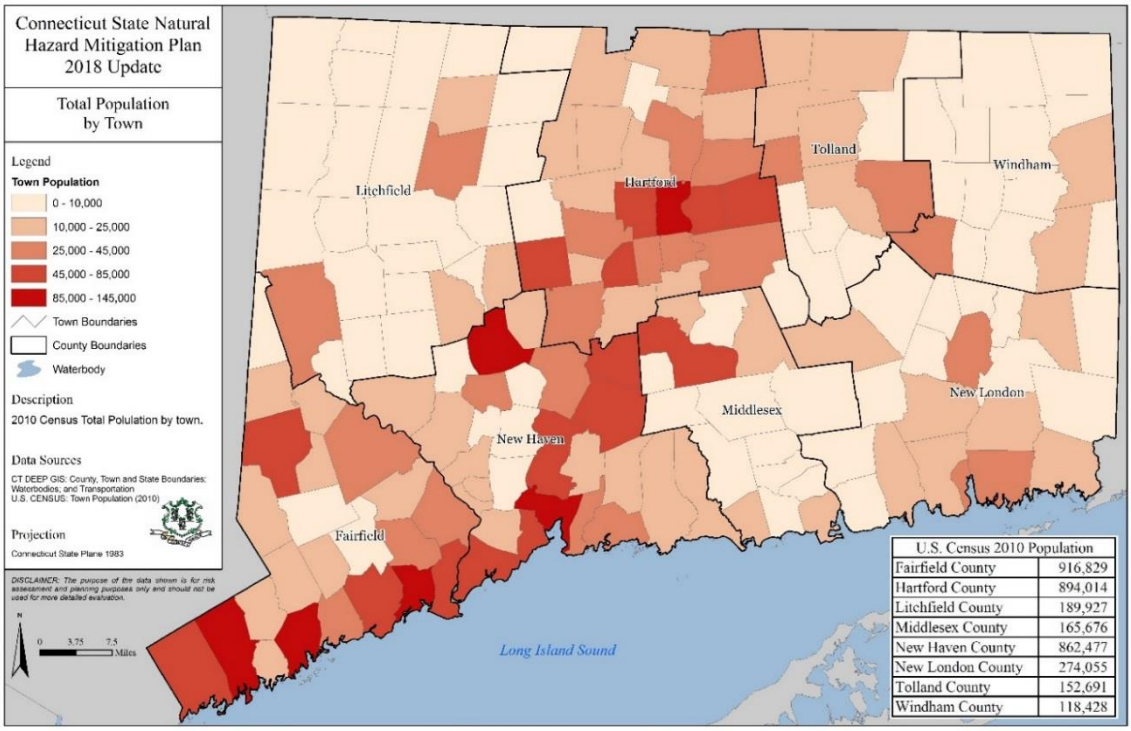

Figure 2-1: Total Population by Municipality

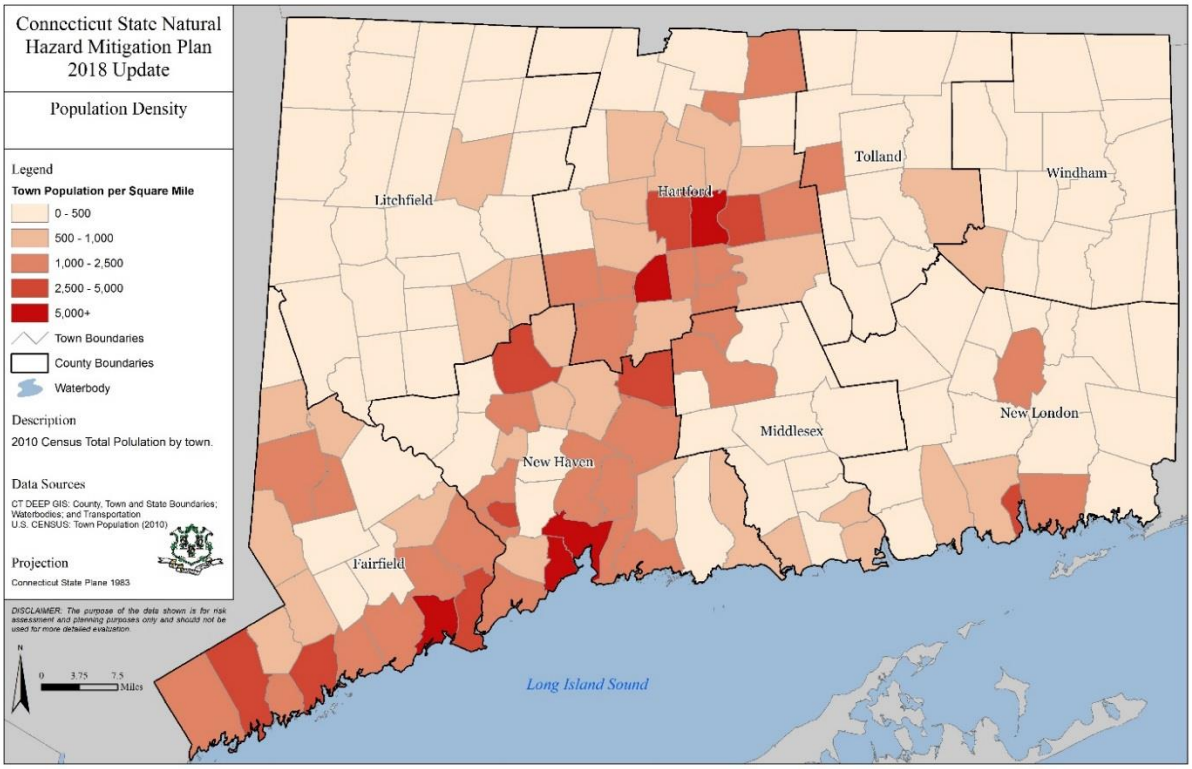

Figure 2-2: Population Density by Municipality

The State continues to recover from the 2008 recession though some counties have shown more growth than others. Connecticut's economy grew by 1% in 2016, following 2.2% growth in 2015.[6] Table 2-4 displays population projection data for Connecticut from 2017 through 2040. It is anticipated that both population and housing will continue to increase slowly in some communities. A review of projections indicates that many smaller communities may begin to experience increased development pressures, especially when denser communities approach build-out. This will increase the importance of local hazard mitigation planning and natural resource management to help mitigate and reduce potential hazard losses.

Table 2-4: Connecticut Population Projection (2020 – 2040)

2017 Population	Population Projection 2020	Population Projection 2025	Population Projection 2030	Population Projection 2035	Population Projection 2040	% Change (2017 to 2040)
3,588,184	3,604,603	3,618,763	3,633,994	3,645,370	3,654,015	1.83%

2.2.3 Facility and Infrastructure Datasets

The state critical facility data has been updated to reflect best available 2018 information. Facilities data was provided by Connecticut Office of Policy and Management (OPM). Mitigation strategies have been created to support expansion of this dataset and collection of additional attribute information. The current data set has point locations for state and critical facilities throughout the state but has limited attribute information populated for building information. Additional data should be collected (e.g. year built, first floor elevation, construction type, roof type, property value) to be able to provide in-depth analysis and mitigation strategies, including climate adaptation strategies informed by HIRA findings.

Assessed values for critical building infrastructure has been derived from the Joint Effort for State Inventory Reporting (JESTIR) database, and updated with The Office of Policy and Management's assessment of building values during August 2016. This open source data is viewable at Connecticut Open Data located at (https://data.ct.gov/). Since the Connecticut Open Data is hosted on a Socrata platform and is not downloadable in a compatible ESRI geospatial forma, the new information could not be fully mapped and intersected with Connecticut hazard. Updated building and content values were manually applied to the 2013 JESTIR data that offered geospatial locators. Impact analyses were run using this data.

Water and wastewater treatment plants are critical to society, industry and emergency operation of critical facilities so are included in the facilities analysis. CT DEEP Bureau of Water Protection and Land Reuse provided the information regarding state, municipal, and private Water Pollution Control Facilities (WPCFs) across the state in 2013. The WPCF data was not updated for the 2019 plan, nor did this dataset have geospatial locators. This resulted in an inability to map these facilities for geospatial analysis. The number of

[6] Connecticut Business & Industry Association, State Economy Posts Modest Growth

WPCFs was obtained from the last plan update, and cross-referenced with lists of WPCFs created by the Connecticut Water Pollution Abatement Association and the Connecticut Department of Energy and Environmental Protection. There are 94 WPCFs in Connecticut. There are 1,940 critical facilities including the 94 unmapped WPCFs, resulting in 1,846 critical facilities mapped and intersected with hazard overlays.

Datasets are constantly changing; mitigation actions have been created to address the gaps in the data and future hazard analysis. State and critical datasets may contain duplicates. The information should be used with caution as the critical facilities also include state run institutions and a handful of federal institutions.

State Infrastructure and Facilities

There are 3,327 mapped state-owned facilities. Using a combination of the 2013 JESTIR database and Connecticut Open Data, the state building portfolio value estimate is $5.6 billion, with more than $866 million in contents value (Table 2-5).

Hartford County houses more than 26% of state-owned structures, followed by Tolland at 18.8%. Building values have been linked to the mapped database for Fairfield, Hartford, Litchfield, Middlesex, and New Haven counties. Though these counties are now mapped, only 43% of these structures had JESTIR ID's that could be linked to a building value to the new 2016 Connecticut Open Data. In addition, the online Open Data states that there are 3,822 state owned buildings with a building value of 8.9 billion dollars and a contents value of $1.1 billion. Unfortunately these data points could not be mapped or intersected with hazards due to inaccurate or unavailable geospatial locators. The state-owned infrastructure and facility data that was used to intersect the State's hazards is the most complete geospatial information available for the 2019 update. Due to the lack of information in the 2013 plan, an average building and content value was assigned and estimated for state facilities in New London, Tolland, and Windham counties. With updated available information from August 2016, average values and estimates for building and contents value were replaced with actual values and were used in the updated analysis. In addition to the facilities provided by Division of Construction Services, UCONN water pollution control facility (WPCF) in Tolland County has been provided by CT DEEP Bureau of Water Protection and Land Reuse and is included as a state-owned facility. A building replacement value or building specific criteria was not available for this structure. The complete infrastructure and facilities datasets can be provided upon request from OPM.

Table 2-5: Number of State Facility / Infrastructure and Building Values

County	Municipality	Total Facilities	2016 Building Values	2016 Content Values
FAIRFIELD	COUNTY	205	$306,766,080	$21,282,935
Fairfield	Bridgeport	26	Not Available	Not Available
Fairfield	Brookfield	2	Not Available	Not Available
Fairfield	Danbury	61	$253,702,928	$16,874,739
Fairfield	New Canaan	9	Not Available	Not Available
Fairfield	New Fairfield	11	Not Available	Not Available

County	Municipality	Total Facilities	2016 Building Values	2016 Content Values
Fairfield	Newtown	25	Not Available	Not Available
Fairfield	Norwalk	19	$19,903,194	$2,982,797
Fairfield	Ridgefield	7	Not Available	Not Available
Fairfield	Shelton	6	Not Available	Not Available
Fairfield	Stamford	11	$33,159,958	$1,425,399
Fairfield	Stratford	12	Not Available	Not Available
Fairfield	Westport	15	Not Available	Not Available
Fairfield	Wilton	1	Not Available	Not Available
HARTFORD	COUNTY	867	$2,193,688,919	$288,756,510
Hartford	Avon	9	$2,726,518	$328,839
Hartford	Berlin	3	$793,133	$82,398
Hartford	Bloomfield	10	$586,090	$364,327
Hartford	Bristol	5	$11,616,520	$1,307,701
Hartford	Burlington	15	$1,888,828	$387,927
Hartford	Canton	1	$5,930	Not Available
Hartford	East Granby	87	$556,118	Not Available
Hartford	East Hartford	7	$2,601,341	$839,579
Hartford	East Windsor	23	$18,539,618	$341,486
Hartford	Enfield	60	$7,243,711	$74,818
Hartford	Farmington	47	$432,659,792	$159,704,615
Hartford	Glastonbury	15	$2,422,153	$285,670
Hartford	Granby	1	$198,267	$1,399
Hartford	Hartford	117	$1,294,293,017	$57,958,711
Hartford	Manchester	20	$96,680,247	$9,398,392
Hartford	New Britain	64	$68,639,469	$6,266,501
Hartford	Newington	57	$95,588,445	$21,950,859
Hartford	Rocky Hill	75	$69,223,833	$18,029,095
Hartford	Simsbury	10	$1,165,845	$69,338
Hartford	South Windsor	1	$198,641	Not Available
Hartford	Southington	10	$8,460,836	$409,279
Hartford	Suffield	33	Not Available	Not Available
Hartford	West Hartford	6	$27,309,960	$3,158,316
Hartford	Wethersfield	20	$37,360,988	$7,044,065
Hartford	Windsor	15	$6,118,731	$719,174
Hartford	Windsor Locks	156	$6,810,888	$34,024
LITCHFIELD	COUNTY	97	$49,393,807	$6,380,386
Litchfield	Barkhamsted	4	Not Available	Not Available
Litchfield	Cornwall	26	Not Available	Not Available

County	Municipality	Total Facilities	2016 Building Values	2016 Content Values
Litchfield	Kent	23	Not Available	Not Available
Litchfield	Litchfield	9	Not Available	Not Available
Litchfield	North Canaan	2	Not Available	Not Available
Litchfield	Torrington	16	$35,701,826	$3,370,208
Litchfield	Warren	1	Not Available	Not Available
Litchfield	Washington	3	Not Available	Not Available
Litchfield	Winchester	13	$13,691,981	$3,010,178
MIDDLESEX	COUNTY	289	$333,187,573	$78,286,749
Middlesex	Chester	2	$35,425	$30,442
Middlesex	Clinton	1	$5,535	Not Available
Middlesex	Cromwell	1	$412,412	$61,759
Middlesex	Deep River	1	$11,046	Not Available
Middlesex	Durham	2	$97,393	Not Available
Middlesex	East Haddam	68	$93,111	Not Available
Middlesex	East Hampton	8	$351,928	$28,875
Middlesex	Essex	4	$860,473	Not Available
Middlesex	Haddam	25	$4,900,739	$470,380
Middlesex	Killingworth	18	$202,749	$2,834
Middlesex	Middlefield	1	Not Available	Not Available
Middlesex	Middletown	121	$307,489,455	$75,818,840
Middlesex	Old Saybrook	6	$12,479,903	$1,222,709
Middlesex	Portland	20	$1,842,358	$316,303
Middlesex	Westbrook	11	$4,405,046	$334,608
NEW HAVEN	COUNTY	561	$729,078,260	$95,519,353
New Haven	Ansonia	2	$11,257,819	$1,819,794
New Haven	Bethany	4	Not Available	Not Available
New Haven	Branford	6	Not Available	Not Available
New Haven	Cheshire	52	$86,420,672	$1,756,683
New Haven	Derby	7	Not Available	Not Available
New Haven	East Haven	17	Not Available	Not Available
New Haven	Guilford	8	$7,789,901	$369,590
New Haven	Hamden	40	$47,576,297	$5,767,670
New Haven	Madison	44	Not Available	Not Available
New Haven	Meriden	46	$78,183,326	$9,961,995
New Haven	Milford	8	Not Available	Not Available
New Haven	New Haven	140	$398,915,751	$72,088,680
New Haven	North Haven	7	Not Available	Not Available
New Haven	Oxford	20	Not Available	Not Available

New Haven	Seymour	1	Not Available	Not Available
New Haven	Southbury	136	$33,238,261	Not Available
County	**Municipality**	**Total Facilities**	**2016 Building Values**	**2016 Content Values**
New Haven	Wallingford	2	Not Available	Not Available
New Haven	Waterbury	11	$65,696,232	$3,754,941
New Haven	West Haven	2	Not Available	Not Available
New Haven	Wolcott	5	Not Available	Not Available
New Haven	Woodbridge	3	Not Available	Not Available
NEW LONDON	COUNTY	489	$90,561,491	$7,976,135
New London	Bozrah	2	Not Available	Not Available
New London	Colchester	12	$3,679,620	$1,711,211
New London	East Lyme	190	$16,807,120	$49,635
New London	Franklin	13	$760,552	$55,844
New London	Griswold	11	$306,095	$3,347
New London	Groton	57	Not Available	Not Available
New London	Lisbon	6	$605,809	$345,909
New London	Montville	13	Not Available	Not Available
New London	New London	7	Not Available	Not Available
New London	North Stonington	3	$1,538,031	Not Available
New London	Norwich	97	$64,988,671	$5,693,195
New London	Preston	3	Not Available	Not Available
New London	Voluntown	1	$238,129	Not Available
New London	Waterford	74	$1,637,463	$116,995
TOLLAND	COUNTY	628	$1,671,757,487	$344,503,260
Tolland	Andover	1	$8,819	$0
Tolland	Bolton	3	$2,648,766	$184,593
Tolland	Columbia	5	$989,717	Not Available
Tolland	Coventry	7	Not Available	Not Available
Tolland	Ellington	1	$307,559	$8,765
Tolland	Hebron	10	$895,196	Not Available
Tolland	Mansfield	527	$1,564,480,643	$336,740,970
Tolland	Somers	29	$49,440,359	$2,016,981
Tolland	Stafford	10	$528,958	Not Available
Tolland	Tolland	6	$5,045,738	$218,098
Tolland	Union	5	$1,140,231	$115,360
Tolland	Vernon	12	$39,027,477	$6,809,315
Tolland	Willington	12	$7,232,619	$2,715,229
WINDHAM	COUNTY	191	$230,192,255	$2,844,196
Windham	Ashford	5	Not Available	Not Available

County	Municipality	Total Facilities	2016 Building Values	2016 Content Values
Windham	Brooklyn	14	$24,819,537	$374,653
Windham	Canterbury	4	$1,544,332	$1,297,666
Windham	Eastford	9	Not Available	$3,756
Windham	Killingly	36	$24,142,738	Not Available
Windham	Plainfield	29	Not Available	Not Available
Windham	Putnam	10	Not Available	Not Available
Windham	Thompson	12	$729,516	Not Available
Windham	Windham	70	$178,656,579	$1,116,392
Windham	Woodstock	2	$299,554	$51,730

In addition to state infrastructure and facilities, the Department of Transportation (DOT) maintains 4,016 bridges (75.6% of bridges within Connecticut) and 4,103 miles of roads (19.2% of State roads). DOT has noted that damages documented for past events are an underrepresentation of disaster-related transportation infrastructure costs associated with pre-storm response and reconstruction. DOT has provided the following information related to state infrastructure:

- Frequency and impacts of extreme events has increased within the past decade
- Fiscal Impacts:
    - Hurricane Sandy (2012) $6,828,102
    - Winter Storm Alfred (2011) $40,339,301
    - Tropical Storm Irene (2011) $10,548,389
    - Intense Rain (2010) $5,849,308

For the 2019 plan update, DOT provided updated numbers of storm-impacted road miles but no detailed cost estimates.

Loss Estimates for State Facilities

- Loss estimates for Connecticut state facilities were calculated by taking the total building and contents values for each municipality and estimating a percentage of loss for each hazard. The full table of loss estimate data by municipality is available in Appendix 2.
- Building and contents values were derived from two methods of calculation. The first was updating values based on JESTIR ID with information from the Office of Policy and Management's assessment of building values in August 2016.
- The second method was for the facilities without building or contents documented values. The total building and contents values for all 3,823 facilities ($8.9 billion in building values and $1.1 billion in contents values) were divided by the total facility count resulting in average building and contents value. These averages were then assigned to the facilities without building and content values.
- Once values for all mapped facilities were updated or assigned, the building and content values were summarized by both county and municipality. Loss estimates were calculated based on a predicted percent loss, and applied to the total building

value for each municipality. The percent of loss was assigned by subject matter experts (SMEs) based on their New England and Connecticut experience with hazard occurrence and magnitude. Estimated losses varied by hazard and by hazard extent. Drought was not included in this analysis, as damage from drought occurs primarily to agricultural areas rather than buildings. The following is a description of the loss percentage for each hazard:

- Dam Failure: The total loss for all structures in dam inundation areas was assigned by SMEs.
- Earthquake: SMEs assigned estimated losses of 15 percent to the total building value for each municipality. Higher magnitude earthquakes uncommon in Connecticut would not create uniform damages.
- Flood: SMEs assigned a loss estimation of 35 percent considering initial losses for buildings within the 100-500 year floodplains.
- Erosion: Erosion prone areas range from steep slopes to highly erodible soil. A loss estimation of 20 percent was assigned by SMEs to compensate for these variations which can range from topsoil loss to total building destruction.
- Sea Level Rise: A total loss for all structures in areas prone to sea level rise was assigned by SMEs.
- Thunderstorm: Thunderstorm risk is universal statewide, so total values for all facilities in all municipalities were used. Since storm intensity varies widely, SMEs assigned a loss estimation of 15 percent. Percentage points were added to include damage from downed trees, debris and fires due to lightning strike along with flooding.
- Tornado: The density of historic tornado tracks was calculated for Connecticut so that areas with the highest population density were assigned a loss estimation by SMEs of 30 percent. Tornado intensity was considered, as well as how tornadoes damage manifests in communities.
- Tropical Cyclone: Tropical Cyclones potentially impact all state facilities. However, there is a difference between the effect on a coastal county and an inland county. For inland counties, a loss estimation of 35 percent was assigned by SMEs. Coastal county values were assigned a loss estimation of 50 percent by SMEs due to the effects of storm surge along the coast.
- Wildland Fire: Two types of Wildland-Urban Interface (WUI) zones were used in loss estimation: intermix and interface. Intermix WUI zones are areas where housing and vegetation intermingle; interface WUI zones are areas with housing near large tracts of forests. Each zone features a high, medium, and low density monikers. SMEs assigned a 50 percent loss to high and medium density intermix and interface areas. A 25 percent loss was assigned to low density intermix and interface areas. When combined, the community's total loss estimate resulted for Wildland Fire state facilities.
- Winter Weather: Since the threat of winter weather is uniform statewide, total values for all facilities in each municipality were used as initial totals. SMEs assigned a loss estimation of 30 percent for this hazard since annual occurrences has directed increased state capacity to address winter storm hazards.

Critical Infrastructure and Facilities

Classification of what constitutes a "critical" facility/infrastructure can vary from federal, state, and local jurisdictions. Critical infrastructure and facilities include systems and assets, whether physical or virtual, so vital to Connecticut that the incapacitation or destruction of such systems and assets would have a debilitating impact on security, economic property, public health or safety, or any combination of those factors. Facilities and infrastructure presented in this section are not limited to only state facilities and infrastructure. Figure 2-3 displays the location of Connecticut's state and critical facilities.

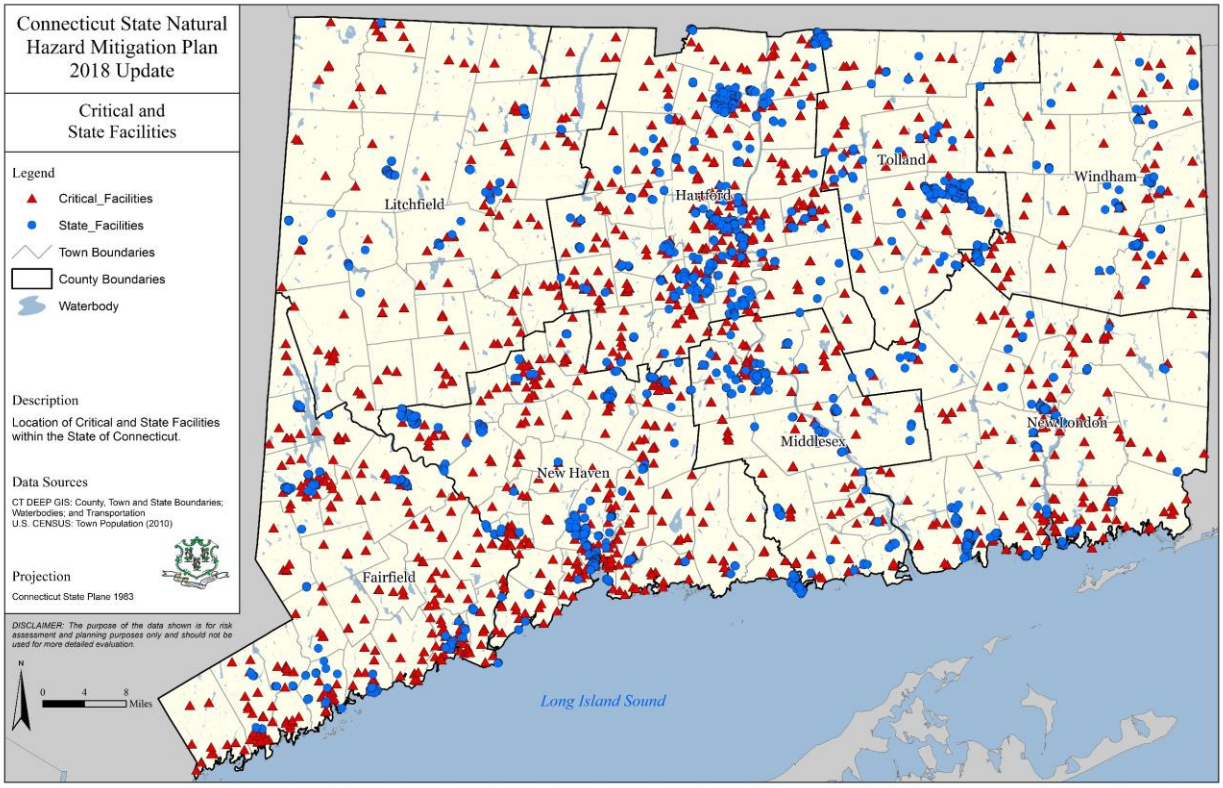

Figure 2-3: Critical and State Facilities

For the plan update, discretion was used to identify specific types of infrastructure and facilities. This does not preclude other types of facilities/structures that may be deemed critical by government entities in the future, nor should it limit the inclusion of other types of facilities that may benefit from assessment of natural or human-caused threat resiliency.

Using this critical facility definition in conjunction with data readily available from OPM, 1,940 facilities/infrastructure were identified in Connecticut. These were listed in several datasets provided by OPM and merged together for spatial analysis.

Infrastructure and facilities include:

- Law Enforcement
- Fire Stations
- EMS
- Health Departments

- Correctional Facilities
- Nuclear Power Plants
- Gas Stations with Generators
- Petroleum, Oil and Lubricant (POL) infrastructure
- Storage Facilities, and Farms
- Water and Waste Water Treatment infrastructure (Public and Private)

Site specific information has been redacted, but is included in the hazard specific analysis. In addition to the 1,846 facilities provided by OPM, 94 WPCFs were provided by CT DEEP Bureau of Water Protection and Land Reuse and are included as critical facilities. The WPCFs, while included in the critical facility count, did not contain geospatial data and therefore were not included in the impact analysis and intersection with hazards.

Table 2-6 provides a breakdown of critical facilities by county and municipality. Fire stations account for 31% of the structures followed by EMS (26%), and municipal solid waste (14%).

Table 2-6: Number and Type of Critical Facility Structures

County	Municipality	Correctional Institutions	EMS	Fire Stations	Gas Station with Generator	Health Departments	Law Enforcement	Municipal Solid Waste	Nuclear Power Plant	Storage Tank Farm	WPCF – Privately Owned	WPCF – Municipality Owned	Critical Facility Totals
FAIRFIELD	COUNTY	4	120	115	22	25	35	43	0	7	6	16	393
Fairfield	Bethel		2	2		1	1	1					7
Fairfield	Bridgeport	2	2	8	4	3	8	3		5		2	37
Fairfield	Brookfield		3	3	1	1	1	1					10
Fairfield	Danbury	1	18	18	1	1	2	4				1	46
Fairfield	Darien		5	3		1	1	2					12
Fairfield	Easton		1	1		1	3	1					7
Fairfield	Fairfield		6	7	2	1	1	2				1	20
Fairfield	Greenwich		8	7	1	2	1	2			4	2	27
Fairfield	Monroe		7	6			1	1					15
Fairfield	New Canaan		2	1	2	1	1	2				1	10
Fairfield	New Fairfield		3	3	1	1	2	1					11
Fairfield	Newtown	1	7	6	3	1	1	1			1	1	22
Fairfield	Norwalk		5	5	1	2	1	2		1		1	18
Fairfield	Redding		7	4		1	1	1				1	15
Fairfield	Ridgefield		2	2		1	1	1				2	9
Fairfield	Shelton		5	4	1		1	3				1	15
Fairfield	Sherman		1	1		1	1	1					5
Fairfield	Stamford		13	14	4	2	2	4		1		1	41
Fairfield	Stratford		6	5		1	1	3				1	17
Fairfield	Trumbull		3	7		1	1	3					15
Fairfield	Weston		3	2			1	1				1	8
Fairfield	Westport		5	4		1	1	2					13
Fairfield	Wilton		6	2	1	1	1	1			1		13
HARTFORD	COUNTY	6	80	141	10	26	44	62	0	8	0	17	394
Hartford	Avon			4		1	1	2					8
Hartford	Berlin		3	4			1	6					14
Hartford	Bloomfield		1	6	1	1	1	1					11
Hartford	Bristol		1	5	3	2	1	5				1	18
Hartford	Burlington		5	5			1						11

County	Municipality	Correctional Institutions	EMS	Fire Stations	Gas Station with Generator	Health Departments	Law Enforcement	Municipal Solid Waste	Nuclear Power Plant	Storage Tank Farm	WPCF – Privately Owned	WPCF – Municipality Owned	Critical Facility Totals
Hartford	Canton		3	3			1	1				1	9
Hartford	East Granby		1	3			1			1			6
Hartford	East Hartford		5	6	1	1	1	2		2		1	19
Hartford	East Windsor		3	4			1	1		1		1	11
Hartford	Enfield	3	7	6	1	1	1	2		1		1	23
Hartford	Farmington		6	6		1	2	2				1	18
Hartford	Glastonbury		1	6	2	1	1	3				1	15
Hartford	Granby		1	3			1	1					6
Hartford	Hartford	2	1	13		6	12	7				1	42
Hartford	Hartland		1	2				2					5
Hartford	Manchester		11	10		2	2	4				1	30
Hartford	Marlborough		1	2			1	1					5
Hartford	New Britain		1	6	1	2	2						12
Hartford	Newington		1	5		1	1	3					11
Hartford	Plainville			1		1	1	3				1	7
Hartford	Rocky Hill		1	3			1	1		1		1	8
Hartford	Simsbury		7	6			1	2				1	17
Hartford	South Windsor		5	4	1	1	1	1				1	14
Hartford	Southington			4		2	1	3				1	11
Hartford	Suffield	1	2	4			1	1				1	10
Hartford	West Hartford		6	6		1	1	3					17
Hartford	Wethersfield		1	3		1	1	2		2			10
Hartford	Windsor		1	4		1	1	2				1	10
Hartford	Windsor Locks		4	7			3	1				1	16
LITCHFIELD	COUNTY	0	34	53	8	7	25	29	0	0	3	11	170
Litchfield	Barkhamsted			3			2	1					6
Litchfield	Bethlehem		1	1	1		1	1					5
Litchfield	Bridgewater			1			1	1					3
Litchfield	Canaan		1	1				2					4
Litchfield	Colebrook			2									2
Litchfield	Cornwall		2	2									4
Litchfield	Goshen		1	1							1		3

County	Municipality	Correctional Institutions	EMS	Fire Stations	Gas Station with Generator	Health Departments	Law Enforcement	Municipal Solid Waste	Nuclear Power Plant	Storage Tank Farm	WPCF – Privately Owned	WPCF – Municipality Owned	Critical Facility Totals
Litchfield	Harwinton		2	2			1	1					6
Litchfield	Kent		1	1	1		1				1		5
Litchfield	Litchfield		4	4	1		5	1				1	16
Litchfield	Morris		1	1				2					4
Litchfield	New Hartford		1	3			1	1				1	7
Litchfield	New Milford		2	4	1	2	1	1				1	12
Litchfield	Norfolk		2	1	1		1	1				1	7
Litchfield	North Canaan		1	1			2	5				1	10
Litchfield	Plymouth		1	3			1	1				1	7
Litchfield	Roxbury		1	1			1	2					5
Litchfield	Salisbury		2	1			1	1				1	6
Litchfield	Sharon		2	2		1						1	6
Litchfield	Thomaston		1	1			1	2				1	6
Litchfield	Torrington		1	7	2	2	1	1				1	15
Litchfield	Warren		1	1									2
Litchfield	Washington		2	1		1	1	1			1		7
Litchfield	Watertown		2	2			1	1					6
Litchfield	Winchester		1	4		1	1					1	8
Litchfield	Woodbury		1	2	1		1	3					8
MIDDLESEX	COUNTY	1	31	36	8	9	17	21	0	3	0	6	132
Middlesex	Chester		1	1	1		1						4
Middlesex	Clinton		1	2	1		1	2					7
Middlesex	Cromwell		3	3		1	1	1				1	10
Middlesex	Deep River		3	2			1	1				1	8
Middlesex	Durham		2	1	1	1	1						6
Middlesex	East Haddam		4	3			1	3				1	12
Middlesex	East Hampton		1	3		1	1	1				1	8
Middlesex	Essex		1	2		1	2	2					8
Middlesex	Haddam		1	4	1			1					7
Middlesex	Killingworth		3	2	1		1	1					8
Middlesex	Middlefield			1	1	1	1	2					6
Middlesex	Middletown	1	6	6	1	2	2	4				1	23

County	Municipality	Correctional Institutions	EMS	Fire Stations	Gas Station with Generator	Health Departments	Law Enforcement	Municipal Solid Waste	Nuclear Power Plant	Storage Tank Farm	WPCF – Privately Owned	WPCF – Municipality Owned	Critical Facility Totals
Middlesex	Old Saybrook		1	1		1	1	1					5
Middlesex	Portland		1	3	1		1	1		3		1	11
Middlesex	Westbrook		3	2		1	2	1					9
NEW HAVEN	COUNTY	5	76	115	23	26	42	45	0	10	3	13	358
New Haven	Ansonia		1	5	1		1	2				1	11
New Haven	Beacon Falls		1	1	1		1	1				1	6
New Haven	Bethany		2	2	1		1						6
New Haven	Branford		5	5		2	1	3				1	17
New Haven	Cheshire	3	1	3	1	1	1	2				1	13
New Haven	Derby		1	4		1	1	2				1	10
New Haven	East Haven		3	4	1		1	1		1			11
New Haven	Guilford		1	5	2	1	1	2					12
New Haven	Hamden		7	7	1		1						16
New Haven	Madison		3	2	1	1	1	2					10
New Haven	Meriden		7	6		3	3					1	20
New Haven	Middlebury		1	2		1	1	1					6
New Haven	Milford		5	5	2	2	1	3			1	2	21
New Haven	Naugatuck		2	2			1					1	6
New Haven	New Haven	2	1	10	3	3	8	4		9		1	41
New Haven	North Branford		4	4	2		1	2					13
New Haven	North Haven		4	4	1	1	1	2					13
New Haven	Orange		2	2	1	1	1	2					9
New Haven	Oxford		1	3	1		1						6
New Haven	Prospect		1	1			1						3
New Haven	Seymour		1	2	1	1	1	2					8
New Haven	Southbury		4	6	1	1	2	2			2		18
New Haven	Wallingford		6	6		2	1	3				1	19
New Haven	Waterbury		1	10	2	3	5	5				1	27
New Haven	West Haven		10	10		2	2	1				1	26
New Haven	Wolcott		1	3			1	2					7
New Haven	Woodbridge			1			1	1					3
NEW LONDON	COUNTY	1	77	68	7	14	33	39	1	2	0	8	250

County	Municipality	Correctional Institutions	EMS	Fire Stations	Gas Station with Generator	Health Departments	Law Enforcement	Municipal Solid Waste	Nuclear Power Plant	Storage Tank Farm	WPCF – Privately Owned	WPCF – Municipality Owned	Critical Facility Totals
New London	Bozrah		1	1				1					3
New London	Colchester		2	2		1	2	3					10
New London	East Lyme	1	3	3	1		2	1					11
New London	Franklin		2	2		1		1					6
New London	Griswold		3	2		1	1	1				1	9
New London	Groton		15	14		1	6	5		1		1	43
New London	Lebanon		1	1		1	1	3					7
New London	Ledyard		4	3		1	2	1				1	12
New London	Lisbon		1	1			1	1					4
New London	Lyme		4	3				2					9
New London	Montville		5	5	2	1	4	2				1	20
New London	New London		3	3		1	4	1		1		1	14
New London	North Stonington		2	1	1	1	1	2					8
New London	Norwich		8	7		2	3	1				1	22
New London	Old Lyme		3	3	1	1	1	2					11
New London	Preston		1	1	2		1	2					7
New London	Salem		2	2		1	1	2					8
New London	Sprague		1	1			1	2				1	6
New London	Stonington		7	6		1	1	3				1	19
New London	Voluntown		1	1				1					3
New London	Waterford		8	6			1	2	1				18
TOLLAND	COUNTY	3	35	37	2	4	11	22	0	0	1	4	119
Tolland	Andover		1	1			1	1					4
Tolland	Bolton		1	1				1					3
Tolland	Columbia		1	1				1					3
Tolland	Coventry		3	4			1	2				1	11
Tolland	Ellington		4	4			1	3					12
Tolland	Hebron		3	3			1	1					8
Tolland	Mansfield	1	4	4	1	1	2	3			1		17
Tolland	Somers	2	1	1		1	1	2				1	9
Tolland	Stafford		4	4		1	1	1				1	12

County	Municipality	Correctional Institutions	EMS	Fire Stations	Gas Station with Generator	Health Departments	Law Enforcement	Municipal Solid Waste	Nuclear Power Plant	Storage Tank Farm	WPCF – Privately Owned	WPCF – Municipality Owned	Critical Facility Totals
Tolland	Tolland		4	4			2	1					11
Tolland	Union		1	1				2					4
Tolland	Vernon		6	6	1	1	1	1				1	17
Tolland	Willington		2	3				3					8
WINDHAM	COUNTY	1	43	40	2	3	12	17	0	0	0	6	124
Windham	Ashford		2	2				2					6
Windham	Brooklyn	1	3	3		1	1	1					10
Windham	Canterbury		1	1				1					3
Windham	Chaplin		1	1			1	1					4
Windham	Eastford		1	1	1			1					4
Windham	Hampton		2	2				1					5
Windham	Killingly		7	6			2	1				1	17
Windham	Plainfield		5	4			1					2	12
Windham	Pomfret		1	1									2
Windham	Putnam		3	2	1	1	2					1	10
Windham	Scotland		2	2									4
Windham	Sterling		2	2			1						5
Windham	Thompson		6	6				1				1	14
Windham	Windham		4	4		1	4	7				1	21
Windham	Woodstock		3	3				1					7
STATE	TOTAL	21	496	605	82	114	219	278	1	30	13	81	1940

2.2.4 Land Use and Development

Effective land use planning is a central component of any hazard mitigation strategy, as existing and planned land use patterns greatly influence a community's hazard vulnerability. Thus, future land use decisions should consider a community's potential hazards and vulnerability, and direct development towards those areas that are least vulnerable, creating a more disaster-resistant environment. FEMA requires evaluation of land use and development trends in state and multi-jurisdictional mitigation plans so that mitigation options can be considered in future land use decisions.

Most of local hazard mitigation plans include a general overview of land uses and development trends. Connecticut local hazard mitigation plan were reviewed for land use trends. Detailed information from each local plan is available in Appendix 4.

Many communities in Fairfield County are projecting that limited growth will continue to occur near Metro-North rail stations including Darien, Greenwich, New Canaan, Norwalk, Stamford, Weston and Westport. Outside of Fairfield County, most growth over the last three years has been very limited. The Center for Land Use Education and Research (CLEAR) at the University of Connecticut provides information, education and assistance to land use decision makers, in support of balancing growth and natural resource protection. CLEAR is a partnership between the Department of Natural Resources and the Environment and the Department of Extension, two units of the College of Agriculture and

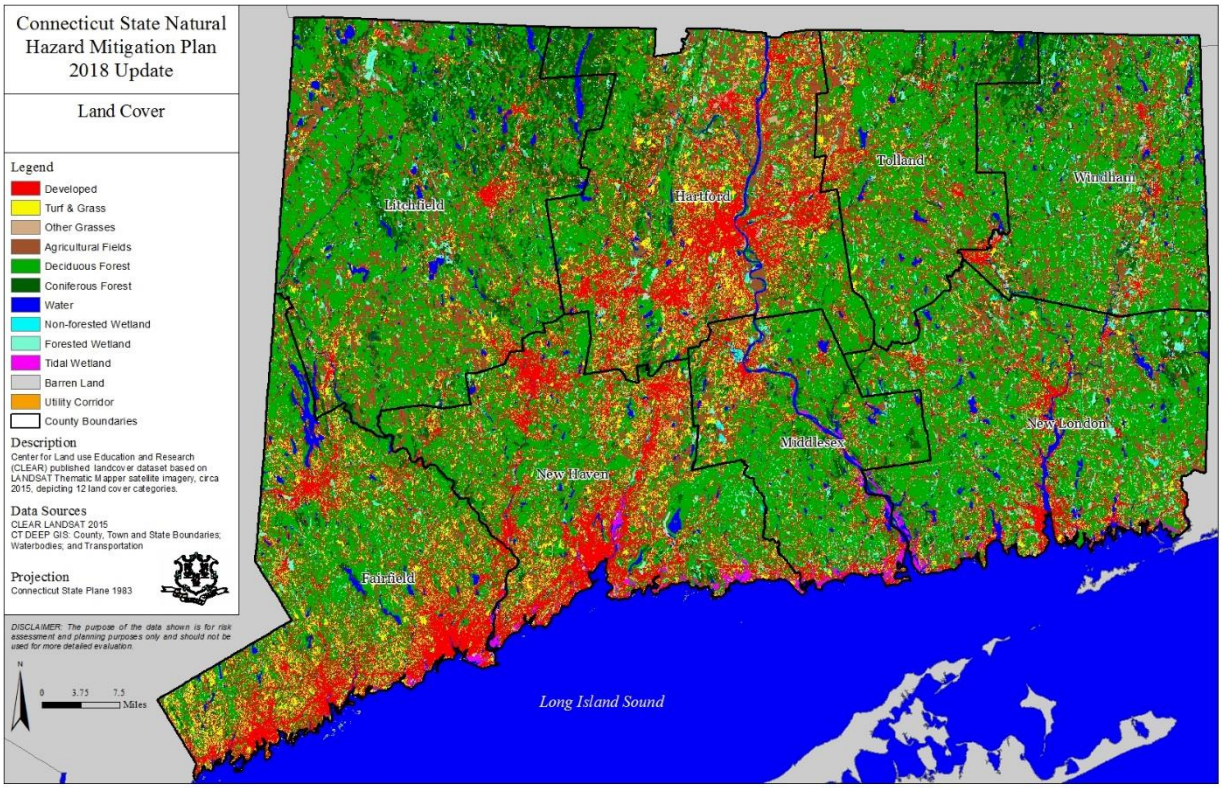

Figure 2-4: Connecticut Land Cover

Natural Resources (CANR), and the Connecticut Sea Grant Program. CLEAR's 2015 Statewide Land Cover map is shown below in Figure 2-4.

There are 12 land cover types:

- Developed land, indicated in red, illustrates high-density developed areas typically associated with commercial, industrial and residential uses and transportation routes. These areas can be expected to contain a significant amount of impervious surfaces, roofs, roads, and other concrete and asphalt surfaces.
- Turf and grass, shown in yellow, represent undifferentiated maintained grasses associated mostly with developed areas. This class contains cultivated lawns typical of residential neighborhoods, parks, cemeteries, golf courses, turf farms, and other maintained grassy areas. Also includes some agricultural fields due to similar spectral reflectance properties.
- Other Grasses, indicated in tan, includes non-maintained grassy areas commonly found along transportation routes and other developed areas, and within and surrounding airport properties.
- Agricultural Field indicated in brown shows areas that are under cultivation, either crop production or active pasture.
- Deciduous forest, shown in bright green, includes southern New England mixed hardwood forests. Also includes scrub areas characterized by patches of dense woody vegetation.
- Coniferous Forest, shown in a dark green, includes southern New England mixed softwood forests, such as pine.
- Water, shown in a bright blue, includes open water bodies and watercourses with relatively deep water.
- Non-forested Wetland in a dark teal includes areas that predominately are wet throughout most of the year and that have a detectable vegetative cover
- Forested wetland in a mint green shows areas depicted as wetland, but with forested cover.
- Tidal wetland, shown in bright teal, shows emergent wetlands, wet throughout most of the year, with distinctive marsh vegetation and located in areas influenced by tidal change.
- Barren areas are shown in gray, and represent mostly non-agricultural areas free from vegetation, such as sand, sand and gravel operations, bare exposed rock, mines, and quarries.
- Utility (Forest), shown in gold, includes utility rights-of-way areas.

Table 2-7 summarizes the statewide land cover and land cover change from 1985 to 2006. Over the last 30-years, developed land has increased over 3% throughout the state and turf & grass has increased 1.6%, while deciduous and coniferous forests have decreased by 3.9%. Connecticut has also lost nearly 60 square miles, or 1.3%, of agricultural areas.

Table 2-7: Statewide Land Cover and Land Cover Change. Source: UCONN Land Use Education and Research.

Land Cover	1985		1990		1995		2002		2006		2015		Change (1985 - 2015)	
	Sq. Miles	% of State	Sq. Miles	% of State	Sq. Miles	% of State	Sq. Miles	% of State	Sq. Miles	% of State	Sq. Miles	% of State	Sq. Miles	% of State
Developed	797.4	16%	862.3	17.40%	885.5	17.80%	922.8	18.60%	942.1	19%	950.6	19.12%	153.2	3.12%
Turf & Grass	308.9	6.20%	325.9	6.60%	341.7	6.90%	362.5	7.30%	381.7	7.70%	389.4	7.83%	80.5	1.63%
Other Grasses	65.3	1.30%	68.7	1.40%	76.1	1.50%	82.4	1.70%	86	1.70%	98.3	1.98%	33.0	0.68%
Agricultural Field	425.2	8.60%	403.9	8.10%	391.8	7.90%	371.8	7.50%	363.4	7.30%	365.4	7.35%	-59.8	-1.25%
Deciduous Forest	2467	49.60%	2410.5	48.50%	2379.7	47.90%	2338.2	47.10%	2307.3	46.40%	2292.0	46.11%	-175.0	-3.49%
Coniferous Forest	455.9	9.20%	452.4	9.10%	449.5	9%	445.2	9%	441.1	8.90%	435.5	8.76%	-20.4	-0.44%
Water	173.1	3.50%	168.8	3.40%	164.1	3.30%	161.1	3.20%	161.2	3.20%	164.8	3.32%	-8.3	-0.18%
Non-forested Wetland	20.2	0.40%	21.2	0.40%	21.2	0.40%	21.7	0.40%	21.1	0.40%	21.2	0.43%	1.0	0.03%
Forested Wetland	183.8	3.70%	177.8	3.60%	174.9	3.50%	173.8	3.50%	173.7	3.50%	181.8	3.66%	-2.0	-0.04%
Tidal Wetland	22.6	0.50%	22.9	0.50%	23	0.50%	23.2	0.50%	22.9	0.50%	22.6	0.45%	0.0	-0.05%
Barren	32.1	0.60%	37.3	0.80%	44.4	0.90%	49.1	1%	51.4	1%	31.6	0.64%	-0.5	0.04%
Utility (Forest)	17.6	0.40%	17.3	0.30%	17.3	0.30%	17	0.30%	17.1	0.30%	17.5	0.35%	-0.1	-0.05%

Although development has continued during the last decade, the pace of development slowed dramatically during 2007-2011 as a consequence of the recession. . Building permits have increased since the recession, hitting a peak in 2015, but have remained below the 2006 development peak. New permits decreased from 2016 to 2017. Figure 2-5 shows Connecticut development trends. Data was provided by the Connecticut Department of Economic and Community Development.

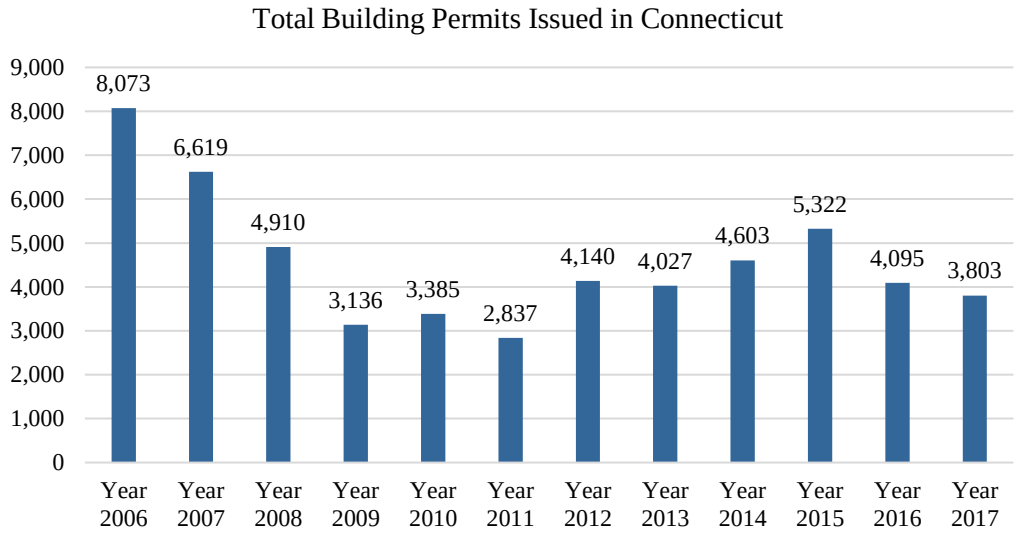

Figure 2-5: Total Building Permits by Year, 2006 - 2017

Table 2-8 provides total building permits issued for 2010-2017 by county. The counties which continue to see the majority of development are Fairfield County and Hartford County. Fairfield County is a popular because of its proximity to New York City for commuters with available transportation options. The City of Hartford is the state capitol and many large companies are located in the City and Hartford County. Thus housing demands in this region of Connecticut have increased due to improved job markets. While building permits had been increasing slowly, there was a significant drop in 2016 and 2017.

Table 2-8: Building Permits by County.

County	2010	2011	2012	2013	2014	2015	2016	2017
Fairfield	790	858	2,007	1,653	1,688	2,582	1,287	1,632
Hartford	614	510	826	892	777	1,002	1,405	964
Litchfield	129	81	92	110	127	5	15	28
Middlesex	262	146	165	215	202	218	217	277
New Haven	902	682	513	582	939	891	575	415
New London	315	197	224	322	591	234	199	155
Tolland	182	260	235	168	182	368	384	313
Windham	191	103	78	85	97	22	13	19
Total	3,385	2,837	4,140	4,027	4,603	5,322	4,095	3,803

Building permit counts are an industry accepted measure of growth. However, tracked building permit information contains data for all building activity requiring a building permit (e.g., new construction, remodeling/additions, demolitions, reconstruction, etc.) so does not accurately represent new construction. So a review of changes in housing inventory was also conducted. Fairfield and Hartford Counties have seen the greatest building permit issuance during the last few years. Table 2-9 shows housing inventory between 2010 and 2017. As of 2017, Hartford County maintained the largest inventory of housing units in the state followed by Fairfield and then New Haven County.

Table 2-9: Total Inventory, Housing Units and Permit Net Gains.

County	2010	2011	2012	2013	2014	2015	2016	2017
Fairfield	361,221	361,760	363,512	365,452	366,779	368,775	370,058	371,239
Hartford	374,249	374,502	375,148	375,733	376,452	377,143	378,508	378,956
Litchfield	87,550	87,643	87,777	87,900	88,015	88,082	88,206	88,316
Middlesex	74,837	74,953	75,165	75,342	75,537	75,788	75,981	76,193
New Haven	362,004	362,507	362,940	363,588	364,494	365,471	366,124	366,672
New London	120,994	121,149	121,401	121,703	122,275	122,717	122,988	123,248
Tolland	57,963	58,258	58,476	58,645	58,813	59,177	59,532	59,809
Windham	49,073	49,144	49,211	49,294	49,381	49,440	49,524	49,632
Total	1,487,891	1,489,916	1,493,630	1,497,657	1,501,746	1,506,593	1,510,921	1,514,065

As the State reviews local mitigation plans in higher growth regions, increased emphasis will be placed on defining the impacts of growth on hazard exposure and risk. Improved data will be collected for incorporation into the next State plan update.

2.3 Connecticut's History of Natural Disasters

Recent disasters have focused the attention of citizens and government officials on hazard impacts to people, humans, the environment, critical facilities and the economy. Since 2010, Connecticut has experienced eight major disaster declarations, during the previous decade only two. There have been 21 State disaster declarations and 11 emergency declarations since 1954.

These disasters have had significant impacts on Connecticut and its residents, such as loss of homes, property and possessions, loss of life and injury, lost wages and business revenue, in addition to psychological and sociological costs to disaster survivors. Following Hurricane Sandy, more than 12,380 Connecticut residents in five counties and two tribal nations registered for federal disaster assistance. More than $11.5 million was approved for housing assistance, including short-term rental assistance and home repair costs. More than $32 million in low-interest disaster loans for homeowners, renters, businesses and private nonprofit organizations was approved by the U.S. Small Business Administration in addition to other aid such as medical and dental assistance. Financial support for lost personal possessions, Disaster Unemployment Assistance, and Public Assistance grants was also provided.[7]

Historically, flooding has caused the most damage to the State and its citizens, along with recent wind and winter storm disaster events. Many figures throughout this plan address the distribution of hazard events and other data by county, as decided by the SHMP Team.

2.3.1 Disaster Declarations and Emergency Declarations in Connecticut

Local and State governments share the responsibility for protecting their citizens from disaster impacts and supporting recovery. When a disaster is beyond the capabilities of the state and local government to respond, federal support may be available. In 1988, the Robert T. Stafford Disaster Relief and Emergency Assistance Act was enacted to support state and local governments and their citizens when disasters overwhelm them and exhaust their resources. This law, as amended, established a process for requesting and obtaining a Presidential disaster declaration, defines the type and scope of assistance available from the Federal government, and sets the conditions for obtaining that assistance.[8] Federal disasters and emergencies are:

A Major Disaster can be declared by the President for any natural event, including any hurricane, tornado, storm, high water, wind-driven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm, or drought, or, regardless of cause, fire, flood, or explosion, that the President determines has caused damage of such severity that it is beyond the combined capabilities of state and local governments to respond. A major disaster declaration provides a wide range of federal assistance programs for individuals,

[7] FEMA, February 15, 2013.
[8] A Guide to the Disaster Declaration Process and Federal Disaster Assistance. FEMA March 4, 2008.

families, households, and public infrastructure, including funds for both emergency and permanent work.

An Emergency Declaration is more limited in scope and without the long-term federal recovery programs of a Major Disaster Declaration. The President can declare an emergency for any occasion or instance when the President determines federal assistance is needed. Emergency declarations supplement State and local or Indian tribal government efforts in providing emergency services, such as the protection of lives, property, public health, and safety, or to lessen or avert the threat of a catastrophe in any part of the United States. The total amount of assistance provided for in a single emergency may not exceed $5 million.

Table 2-10 provides details of federally declared disasters from 1954 through 2018. The May 2018 declaration did not yet have funding approved as of October 2018.

Table 2-10: Federally Declared Disasters (1954 – July 2018) and Emergency Declarations (1978 – July 2018).

Disaster	Year	Incident Period	Disaster Types	Counties	IA $	PA $
DR-4385	2018	May 15	Severe Storms, Tornado, and Straight-line Winds	Fairfield, New Haven	TBD	TBD
DR-4213	2015	January 26-January 29	Severe winter storm and snow storm	New London, Tolland, Windham		$9.6M
DR-4106 EM-3361	2013	February 8-February 11	Severe winter storm and snow storm	All		$31.7M
DR-4087 EM-3353	2012	October 27-November 8	Hurricane	Litchfield, Fairfield, New Haven, Middlesex, New London, Windham, Tolland	$15.4M	$64.3M
DR-4046 EM-3342	2011	October 29-October 30	Severe Storm	Litchfield, Fairfield, New Haven, Middlesex, Windham, Tolland, Hartford		$87.3M
DR-4023 EM-3331	2011	August 27-September 1	Tropical Storm/Hurricane	All	$9.5M	$43.0M
DR-1958	2011	January 11-January 12	Snowstorm	Fairfield, Hartford, Litchfield, New Haven, New London, Tolland	$5.3 M	$13.6M
DR-1904	2010	March 12-May 17	Severe Storms and Flooding	Fairfield, Middlesex, New London	$2.6 M	$8M

Disaster	Year	Incident Period	Disaster Types	Counties	IA $	PA $
DR-1700	2007	April 15-April 27	Severe Storms and Flooding	Fairfield, Hartford, Litchfield, Middlesex, New London, New Haven, Windham		$4.9M
EM-3266	2006	February 11-February 12	Snow	Fairfield, Hartford, New Haven, Tolland, Windham		
EM-3200	2005	January 22-January 23	Snow	All		
DR-1619	2005	October 14-October 15	Severe Storms and Flooding	Litchfield, New London, Tolland, Windham		$3.7M
EM-3246	2005	August 29-October 1	Hurricane	All		
EM-3192	2003	December 5-December 7	Snow	Fairfield, Hartford, Litchfield, New Haven, New London, Tolland, Windham		
EM-3176	2003	February 17-February 18	Snow	All	$913K	
DR-1302	1999	September 16-September 21	Tropical Storm	Fairfield, Hartford, Litchfield		$1.9M
DR-1092	1996	January 7-January 13	Blizzard	Not listed		
EM-3098	1993	March 13-March 17	Severe Winds and Blizzard, Snowfall	Not listed		
DR-972	1992	December 10-December 13	Coastal Flooding, Winter Storm	Not listed		
DR-916	1991	19-Aug	Hurricane	Not listed		
DR-837	1989	10-Jul	Severe Storms, Tornadoes	Not listed		
DR-747	1985	27-Sep	Hurricane	Not listed		
DR-711	1984	May 27-June 2	Severe Storms, Flooding	Not listed		
DR-661	1982	14-Jun	Severe Storms, Flooding	Not listed		
DR-608	1979	4-Oct	Tornado, Severe Storms	Not listed		
EM-3060	1978	7-Feb	Blizzards and Snowstorms	Not listed		

Disaster	Year	Incident Period	Disaster Types	Counties	IA $	PA $
DR-42	1955	20-Aug	Hurricane, Torrential Rain, Floods	Not listed		
DR-25	1954	17-Sep	Hurricane	Not listed		

Two major disasters occurred in Connecticut since the previous plan was updated. Additional information on declared disasters prior to 2013 is available in the hazard specific sections as well as in Appendix 2.

DR-4213: Winter Storm Juno, or the January 2015 North American blizzard was an intense storm event which dumped up to three feet of snow in some parts of New England. Connecticut residents were encouraged to leave work and shelter at home by Governor Dannel Malloy. On March 27, 2015, Governor Dannel P. Malloy requested a major disaster declaration due to a severe winter storm and snowstorm during the period of January 26-28, 2015. The Governor requested a declaration for Public Assistance, including snow assistance for four counties and Hazard Mitigation statewide. On April 8, 2015, President Obama declared that a major disaster existed. The declaration made Public Assistance requested by the Governor available to state and eligible local governments and certain private nonprofit organizations on a cost-sharing basis for emergency work and the repair or replacement of facilities damaged by the severe winter storm and snowstorm in New London, Tolland, and Windham Counties.

2.3.2 National Oceanic and Atmospheric Administration (NOAA) National Centers for Environmental Information (NCEI)

NCEI is composed of NOAA's three former data centers: the National Climatic Data Center, the National Geophysical Data Center, and the National Oceanographic Data Center. The NCEI Storm Events Database contains a record of storm occurrence and other significant weather phenomena having sufficient intensity to cause loss of life, injuries, significant property damage, and/or disruption to commerce. Efforts are made to collect the best available information, but because of time and resource constraints, information may be unverified by NOAA's National Weather Service (NWS). The NWS does not guarantee the accuracy or validity of the information. Although the historical records in the database often vary widely in the level of detail, the NWS does have a set of guidelines for use in the preparation of event descriptions that were followed in preparation of this hazard analysis.[9]

To compare NCEI data for the purpose of the updated HIRA, the county in which the event occurred was of primary interest. NCEI catalogues data in formats:

- **County Name** – Event listed as individual record for each county in which it occurred

[9] National Weather Service Instruction 10-1605. Operations and Services Performance: Storm Data Preparation Guide. August 17, 2007. Available at: http://www.nws.noaa.gov/directives/sym/pd01016005curr.pdf

- **Zone** – Event listed by the zone or multiple zones, which contain multiple counties.

In the absence of better data, it was decided to proceed with the records available in NCEI for these events. In most cases NCEI records for hurricane and wildfire are significant under-representations of past damage occurrences. Additional sources supplemented hazard sections and are referenced therein.

From 1950 through December 31, 2017, The NCEI records 5,015 severe weather events. Table 2-12 provides jurisdictional totals of severe weather events by jurisdiction. To accurately count the number of events occurring by county, the zonal data records were expanded into a set of specific county records, based on NCEI zone definitions. For example, the Northern Fairfield Zone and Southern Fairfield Zone were combined to create Fairfield County. During this process, the number of events and the losses associated with a storm event in zones were combined to represent the entire county.

It is important to note that one storm event often impacts multiple jurisdictions. The same storm event may be entered for each zone, meaning the process of combining zones may artificially increase the number of storm events per county. Individual storm events were also often counted in multiple counties. For this reason, total events by state are not included in data tables, and were instead calculated using Event IDs for a more accurate count. While NCEI has 5,015 event records for Connecticut from 1950 through 2017, there were only 1,962 distinct severe weather events.

Table 2-11 provides the number of events per hazard for the state, based on this calculation using Event IDs.

The NCEI Storm Events Database provides information about events from 1950 to December 31st, 2017. Records for most weather events were reported starting in 1996, with the exception of tornado (reports date to 1950), thunderstorm winds (reports date to 1955), and hail (reports date to 1955).

Table 2-13 summarizes the total property losses recorded from all storm events. Damages were not duplicated across jurisdictions, so state totals for damages were included in tables throughout the plan. Since the 1950s, more than $1.8 billion (inflated to 2017 dollars) in property losses has been documented in the NCEI Storm Events Database. The majority of documented damages are attributed to tornado events in Hartford and New Haven counties. Thunderstorms represent 54% of the events within the database, followed by Winter Weather (22%) and Flood (18%). Litchfield has experienced the most events for thunderstorms and winter weather. Fairfield has experienced the most flood events, with New Haven closely behind. No losses have been recorded for drought.

Records on hurricanes and wildfires were not complete in the NCEI, and have not been included in the following tables. Detailed information on the number and the history of hurricanes and wildfires is located in the hurricane and wildfire subsections of this chapter. Chapter 3 includes in-depth information on the NWS capabilities and state severe weather warning system.

Table 2-11 NCEI Total Storm Events by Hazard, 1950 - 2017 (Edited to Eliminate Duplicate Storm Event Records)*

Hazard	Number of Events
Drought	15
Flood	356
Thunderstorm	1,062
Tornado	92
Winter	432
Grand Total	1,962

**Note: NCEI Hurricane and Wildfire Data is incomplete and not used in this analysis. Please refer to the Hurricane and Wildfire Hazard subsections for datasets used in analysis.*

Table 2-12: NCEI Storm Events by County, 1950 - 2017*

County	Drought	Flood	Thunderstorms	Tornado	Winter Weather	County Total
Fairfield	6	128	527	19	183	339
Hartford	9	102	571	20	110	812
Litchfield	2	124	593	32	279	1,031
Middlesex	6	41	186	9	126	368
New Haven	6	123	424	18	168	739
New London	6	99	247	4	124	480
Tolland	9	14	250	11	102	386
Windham	7	13	199	3	96	318

**Note: Many NCEI severe weather events impact multiple counties, and are thus counted in each affected county. NCEI Hurricane and Wildfire Data is incomplete and was not included in this chart. Please refer to the Hurricane and Wildfire Hazard subsections for more details.*

Table 2-13: NCEI Total Property Losses by County, 1950 – 2017, Inflated to 2017 Dollars*

County	Flood	Thunderstorm	Tornado	Winter Weather	County Totals
Fairfield	$17,638,967	$14,535,986	$8,924,729	Not Available	$41,099,682
Hartford	$15,639,328	$7,583,758	$904,150,586	$30,343,304	$957,716,976
Litchfield	$4,072,509	$3,518,514	$106,087,265	$2,070,060	$115,748,348
Middlesex	$643,981	$1,058,327	$2,463,629	Not Available	$4,165,937
New Haven	$4,319,243	$3,346,215	$579,367,790	$4,021,960	$591,055,208
New London	$7,628,644	$3,088,788	Not Available	Not Available	$10,717,431
Tolland	$1,619,491	$2,386,188	$3,093,879	$9,146,488	$16,246,046
Windham	$953,070	$1,765,217	$5,802,369	$2,432,519	$10,953,175
Total	$52,515,233	$37,282,991	$1,609,890,248	$48,014,331	$1,747,702,803

**Note: There were no damages recorded from Drought. Hurricane and Wildfire Data is incomplete and was not included. Please refer to the Hurricane and Wildfire Hazard subsections for more details.*

2.4 Climate Change

Climate change is both a present threat and a slow-onset disaster. It acts as an amplifier of existing hazards. Extreme weather events have become more frequent over the past 40 to 50 years and the trend is projected to continue[10]. Current and projected elevations in sea level, coupled with potentially higher hurricane wind speeds, rainfall intensity, and storm surges are expected to significantly harm coastal communities. More intense heat waves may mean more heat-related illnesses, droughts and wildfires. The plan update includes a brief discussion of how climate change might impact the frequency, intensity and distribution of specific hazards. New and updated analysis is ongoing and will continue to refine climate change projections which will be incorporated into future plan updates.

2.4.1 Climate Change Impacts

Global Trends

Global predicted future climate change is based on the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5). AR5 replaced the standards employed in previous reports with new scenarios called Representative Concentration Pathways (RCPs). There are four pathways: RCP8.5, RCP6, RCP4.5 and RCP2.6. The numbers refer to

[10] Gutowski, W.J., G.C. Hegerl, G.J. Holland, T.R. Knutson, L.O. Mearns, R.J. Stouffer, P.J. Webster, M.F. Wehner, and F.W. Zwiers, 2008: Causes of observed changes in extremes and projections of future changes. In: Weather and Climate Extremes in a Changing Climate: Regions of Focus: North America, Hawaii, Caribbean, and U.S. Pacific Islands [Karl, T.R., G.A. Meehl, C.D. Miller, S.J. Hassol, A.M. Waple, and W.L. Murray (eds.)]. Synthesis and Assessment Product 3.3. U.S. Climate Change Science Program, Washington, DC, pp. 81-116.

forcings for each RCP.[11] Climate scenarios have a common baseline period of 1986–2005, consistent with the 2006 start-point for the RCP scenarios.[12]

- RCP8.5 is characterized by increasing greenhouse gas emissions over time, leading to high greenhouse gas concentration levels.
- RCP6 is a stabilization scenario in which total radiative forcing is stabilized shortly after 2100, without overshoot, by the application of a range of technologies and strategies for reducing greenhouse gas emissions.
- RCP4.5 is a stabilization scenario in which total radiative forcing is stabilized shortly after 2100, without overshooting the long-run radiative forcing target level.
- RCP2.6 is representative of scenarios in the literature that lead to very low greenhouse gas concentration levels. It is a "peak-and-decline" scenario, where greenhouse gas emissions are reduced substantially over time.

Along with the RCP scenarios, the fifth phase of the Coupled Model Intercomparison Project (CMIP5) is used to assess climate models. CMIP5 promotes a standard set of model simulations to evaluate how realistic models are in simulating the recent past projecting future climate change on two time scales, and understanding the factors responsible for differences in model projections.[13] The research based on the phase five of CMIP dataset provided much of the new material underlying the IPCC Fifth Assessment Report (AR5). Based on these scenarios, AR5 predicts future changes in global temperature and precipitation. Particularly relevant to Connecticut are the following findings:[14]

- The CMIP5 ensemble projects increases in mean annual temperature over North America. The largest changes in mean annual temperature will occur over the high latitudes of the USA and Canada, including greater than 6°C change in the late-21st-century period in RCP8.5.
- There will be increases in the occurrence of extremely hot seasons over North America in early, middle, and late-21st-century periods. This will include greater than 50% of summers exceeding a mid-20th-century baseline throughout much of North America by the mid-21st-century.

[11] Wayne, G. P. The Beginner's Guide to Representative Concentration Pathways. *Skeptical Science*, Version 1.0, 2013. https://www.skepticalscience.com/rcp.php [Accessed 12.02.2017].
[12] Intergovernmental Panel on Climate Change, Chapter 12: Long-term Climate Change: Projections, Commitments and Irreversibility: Collins, M., R. Knutti, J. Arblaster, J.-L. Dufresne, T. Fichefet, P. Friedlingstein, X. Gao, W.J. Gutowski, T. Johns, G. Krinner, M. Shongwe, C. Tebaldi, A.J. Weaver and M. Wehner, 2013: Long-term Climate Change: Projections, Commitments and Irreversibility. In: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.
[13] Program For Climate Model Diagnosis and Intercomparison, "CMIP5 - Coupled Model Intercomparison Project Phase 5 – Overview" Accessed Feb 26 2018. https://cmip.llnl.gov/cmip5/
[14] Romero-Lankao, P., J.B. Smith, D.J. Davidson, N.S. Diffenbaugh, P.L. Kinney, P. Kirshen, P. Kovacs, and L. Villers Ruiz, 2014: North America. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Barros, V.R., C.B. Field, D.J. Dokken, M.D. Mastrandrea, K.J. Mach, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 1439-1498.

- Almost all areas of North America will experience increases of at least 5°C in the warmest daily maximum temperature by the late-21st-century period in RCP8.5.
- The high-latitude areas of North America exhibit changes in mean annual precipitation, with increases occurring in the mid-21st-century period in RCP2.6 and becoming generally more widespread at higher emission scenarios.
- Almost all areas of North America will experience increases of 5 to 20% in the 20-year return value of extreme precipitation by the mid-21st-century period in RCP4.5, while most areas of the USA and Canada exhibit very likely increases of at least 5% in the maximum 5-day precipitation by the late-21st-century period in RCP8.5.

Regional Trends: The Northeastern US

Historical Temperature Data

Across the Northeastern US temperatures have generally remained above the 1901-1960 average, both annually and especially during the winter. Fifteen of the winters from 1992-2011 have been above average. There has been an increasing trend in the length of the freeze-free season since the mid-1980s, with the average season length during 1991-2010 being about 10 days longer than during 1961-1990. Overall warming is further evidenced by later ice-in dates on northeastern lakes, decreases in average snow depth, and an increase in the rate of sea-level rise along the coast.[15]

Historical Precipitation Data

Annual precipitation has varied over time, showing a clear shift towards greater variability and higher totals since 1970. The wettest year since 1895 was 2011, while the 2nd driest year occurred in 1996. The 1960s were characterized by a very severe, long-term drought that was particularly intense in the New England region, where it spanned almost the entire decade. The Northeast's three driest years were 1930, 1941, and 1965. The two wettest summers on record occurred in 2006 and 2009.[16] "The Northeast has experienced a greater recent increase in extreme precipitation than any other regions in the United States; between 1958 and 2010, the Northeast saw more than a 70% increase in the amount of precipitation falling in very heavy events (defined as the heaviest 15 of all daily events)."[17]

Historical Sea Level Rise

Over the past thousand years, regional sea level has risen at a rate of 0.34 to 0.43 inch per decade. More recently, the rate of sea level rise along the Northeast Coast has increased. On average during the 20th century, sea level rose by 1.2 inches per decade. This reflects the increase in ocean water volume as the oceans warm, as well as the melting of glaciers and

[15] Kunkel, K.E. Stevens, L.E. Stevens, S.E. Sun, L. Janssen, E. Wuebbles, D. Rennells, J. DeGaetano, and A. Dobson, J.G. (2013). *Regional Climate Trends and Scenarios for the U.S. National Climate Assessment: Part 1. Climate of the Northeast U.S. NOAA Technical Report NESDIS 142-1* (United States, National Oceanic and Atmospheric Administration, National Environmental Satellite, Data, and Information Service). Washington, D.C. https://www.nesdis.noaa.gov/sites/default/files/asset/document/NOAA_NESDIS_Tech_Report_142-1-Climate_of_the_Northeast_US.pdf

[16] Kunkel et al. (NOAA Report)

[17] From Climate Change Impacts in the United States, Chapter 16: Northeast

ice sheets and changes in Atlantic Ocean circulation.[18] This rate of sea level rise exceeds the global average, due primarily to land subsidence, and has caused an increase in coastal flooding in the Northeast.[19]

Temperature Predictions

The northeast will experience an increase in mean temperatures, with little spatial variation. In the near future, changes in temperature vary little between low and high emission scenarios, but later in the 21st century the high emission scenario indicated nearly twice the amount of warming. Throughout the region, the number of days above 95°F will increase and the number of days below 10°F will decrease. The mean freeze-free period is expected to increase by 26 days. The largest temperature changes will occur in the north of the region, and the smallest changes will occur in coastal and southern areas. Seasonal changes show more spatial variability, with winter temperature increases ranging from 4.0°F in the southwestern part of the region to 6.0°F in the north.[20]

Precipitation Predictions

Models indicate that precipitation will increase across the entire Northeastern US. All areas will experience increases in the number of days with precipitation exceeding 1 inch, with parts of New York experiencing up to 30% increases. The smallest simulated increases of 9 to 12% are mainly in coastal regions. Between 2000 and 2055, the number of consecutive days with precipitation less than 0.1 inches is expected to see small increases or no change. The far northern regions show the largest simulated increases in mean precipitation while southern and coastal areas show less of an increase. This gradient increases in magnitude as time progresses, particularly for high emission scenarios.[21]

Impacts on the Northeast

The Climate Change Impacts in the United States study on the Northeastern US identifies four main takeaways to be considered in future planning[22]:

1. Heat waves, coastal flooding, and river flooding will pose a growing challenge to the region's environmental, social, and economic systems. This will increase the vulnerability of the region's residents, especially its most disadvantaged populations.
2. Infrastructure will be increasingly compromised by climate-related hazards, including sea level rise, coastal flooding, and intense precipitation events.
3. Agriculture, fisheries, and ecosystems will be increasingly compromised over the next century by climate change impacts. Farmers can explore new crop options, but these adaptations are not cost- or risk-free. Moreover, adaptive capacity, which varies throughout the region, could be overwhelmed by a changing climate.

[18] Kunkel et al. (NOAA Report)
[19] From Climate Change Impacts in the United States, Chapter 16: Northeast
[20] Kunkel et al. (NOAA Report)
[21] Kunkel et al. (NOAA Report)
[22] From Climate Change Impacts in the United States, Chapter 16: Northeast

4. While a majority of states and a rapidly growing number of municipalities have begun to incorporate the risk of climate change into their planning activities, implementation of adaptation measures is still at early stages."

Local Trends: Impacts on Connecticut

The Connecticut State Water Plan provides local climate change predictions. Future climate scenarios for the state were developed using a combination of state-of-the-art climate models and historically available climate observations, centered on a 2080 planning horizon. Future climate projections for the state have been summarized using global climate model (GCM) projection data sets, with projections developed under the World Climate Research Programme Coupled Model Intercomparison Project, Phase 5 (CMIP5). Climate model data were pooled into four different ensembles, each of which is used to develop different future climate scenarios. All 110 GCM projections, downscaled to an area representing Connecticut, are represented in these scenarios:

- Hot/Dry: 50th to 100th percentile Temp, 0 to 50th percentile Precipitation
- Hot/Wet: 50th to 100th percentiles Temp and Precipitation
- Warm/Wet: 0 to 50th percentile Temp, 50th to 100th percentile Precipitation
- Warm/Dry: 0 to 50th percentile Temp and Precipitation

The results of this analysis showed that Connecticut will experience a hotter and wetter future. Both summer and winter temperatures are projected to increase by similar amounts, and a similar shift is observed for both extreme cold and extreme hot months. Precipitation projections are more variable, although consistently projecting a generally wetter future for all four scenarios. The largest precipitation increases are projected for the wetter months, including extreme wet months. Winter and spring precipitation changes are projected to be larger than summer and autumn changes. Drier months are generally projected to remain about the same in terms of both frequency and rainfall level. Small decreases in extreme dry month precipitation are projected for the "hot/dry" scenario.23

Impacts: Water Systems

Implied by these results is the potential for decreased water availability due to significantly higher temperatures and evapotranspiration losses. However, clearly this dynamic would be offset to a certain extent by increased rainfall. The analysis does not explicitly project changes in the distribution of rainfall on an event basis, which could affect flooding potential and also the frequency and intensity of summer droughts. However, typical climate forecasts tend to suggest that increased temperatures coupled with increased annual precipitation generally correspond to higher intensity storms (greater flood risk) and longer dry periods in the summer months (more frequent and/or intense droughts). Because Connecticut has so many small reservoir systems, these systems could be very sensitive to such changes, and case study examples may be advisable in the next phase of work.

[23] All above text from CT State Water Plan (http://www.ct.gov/water/site/default.asp)

Demands could similarly be impacted, with increasing demands due to higher temperatures, but with changes tempered by increased rainfall. The timing of water availability and stream flows will also undoubtedly be impacted, with less snow pack and earlier melt. The combination of potential rapid snow melt and higher extreme precipitation events could translate to an increased flooding risk. Lastly, river water quality could be negatively impacted by the higher temperatures; higher water temperatures can lead to increased growth rates of both algae and bacteria, and lower dissolved oxygen saturation levels.[24]

Impacts: Sea Level Rise and Coastal Flooding

Coastal cities and towns will become more vulnerable to storms in the coming century as sea level rises, shorelines erode, and storm surges become higher. Rising sea level erodes wetlands and beaches, reducing their mitigating effect on coastal storms. Infill and shoreline development further reduce the capacity of natural coastlines to reduce storm surges and impacts of sea level rise. With less natural protection, coastal communities are more vulnerable to the impacts of climate change.

Storms can destroy coastal homes, wash out highways and rail lines, and damage essential communication, energy, and wastewater management infrastructure."[25] The infrastructure planning areas determined to be the most impacted by climate change were coastal flood control and protection, dams and levees, stormwater, transportation and facilities and buildings. Damage to these assets could cause substantial structural and economic damage.[26] Connecticut is particularly vulnerable to these effects, as a large portion of transportation infrastructure and population centers are located in coastal areas.

Impacts: Ecosystems

Ecological habitats at the highest risk from climate change are Cold Water Streams, Tidal Marsh, Open Water Marine, Beaches and Dunes, Freshwater Wetlands, Offshore Islands, Major Rivers, and Forested Swamps. While the degree of impact will vary, likely changes include conversion of rare habitat types (e.g., cold water to warm water streams, tidal marsh and offshore islands to submerged lands), loss and/or replacement of critical species dependent on select habitats, and the increased susceptibility of habitats to other on-going threats (e.g., fragmentation, degradation and loss due to irresponsible land use management, establishment of invasive species).[27]

Tidal wetlands are particularly vulnerable to sea level rise because of their low elevations, and shoreline development prevents them from migrating inland onto higher ground. Human activities such as filling wetlands have destroyed about one third of New England's

[24] All above text from CT State Water Plan (http://www.ct.gov/water/site/default.asp)
[25] EPA 2016 Report: What Climate Change Means for Connecticut (https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/climate-change-ct.pdf)
[26] Climate Change Connecticut Report: The Impacts of Climate Change on Connecticut Agriculture, Infrastructure, Natural Resources and Public Health (http://www.ct.gov/deep/lib/deep/climatechange/impactsofclimatechange.pdf)
[27] Climate Change Connecticut Report: The Impacts of Climate Change on Connecticut Agriculture, Infrastructure, Natural Resources and Public Health (http://www.ct.gov/deep/lib/deep/climatechange/impactsofclimatechange.pdf)

coastal wetlands since the early 1800s.[28] Wetlands provide habitat for many bird and fish species, regulate water flows and sediment discharge, and are important environments for nutrient cycling.

Climate change also threatens ecosystems by disrupting relationships between species. Wildflowers and woody perennials are blooming—and migratory birds are arriving— sooner in spring. Not all species adjust in the same way, however, so the food that one species needs may no longer be available when that species arrives on its migration. Warmer temperatures allow deer populations to increase, leading to a loss of forest underbrush, which makes some animals more vulnerable to predators. Rising temperatures also enable invasive species to move into areas that were previously too cold.[29]

Impacts: Agriculture

Most of Connecticut's agricultural features are highly and negatively impacted by climate change. The top five most imperiled agricultural sectors are maple syrup, dairy, warm weather produce, shellfish and apple and pear production.[30] Warmer temperatures cause cows to eat less and produce less milk. This could reduce the output of Connecticut's $70-million dairy industry, which provides 13 percent of the state's farm revenue. Some farms may be harmed if more hot days and droughts reduce crop yields, or if more flooding and wetter springs delay their planting dates. While most climate change impacts are negative, some farms may benefit from a longer growing season and the fertilizing effect of carbon dioxide.[31] Climate change may also allow for production expansion opportunities, including biofuel crops, witch hazel, and grapes.[32]

Impacts: Human Health

Changes in temperature and precipitation could increase the incidence of acute and chronic respiratory conditions such as asthma. Higher temperatures can increase the formation of ground-level ozone (smog), a pollutant that can contribute to respiratory problems. Extreme heat events will increase heat-induced ailments, especially in those populations who do not have the benefit of air conditioning.[33] Rising temperatures may also increase the length and severity of the pollen season for plants such as ragweed—which has already been observed in other regions. Certain populations are especially vulnerable to these effects, including children, the elderly, the sick, and the poor. [34]

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[28] EPA 2016 Report: What Climate Change Means for Connecticut (https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/climate-change-ct.pdf)
[29] EPA 2016 Report: What Climate Change Means for Connecticut (https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/climate-change-ct.pdf)
[30] Climate Change Connecticut Report: The Impacts of Climate Change on Connecticut Agriculture, Infrastructure, Natural Resources and Public Health (http://www.ct.gov/deep/lib/deep/climatechange/impactsofclimatechange.pdf)
[31] EPA 2016 Report: What Climate Change Means for Connecticut (https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/climate-change-ct.pdf)
[32] Climate Change Connecticut Report: The Impacts of Climate Change on Connecticut Agriculture, Infrastructure, Natural Resources and Public Health (http://www.ct.gov/deep/lib/deep/climatechange/impactsofclimatechange.pdf)
[33] Climate Change Connecticut Report: The Impacts of Climate Change on Connecticut Agriculture, Infrastructure, Natural Resources and Public Health (http://www.ct.gov/deep/lib/deep/climatechange/impactsofclimatechange.pdf)
[34] EPA 2016 Report: What Climate Change Means for Connecticut (https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/climate-change-ct.pdf)

Climate change may increase the risk of some diseases carried by insects, by altering ecosystems in a way that favors increased vector survival, replication, biting frequency, and geographic range.[35] The ticks that transmit Lyme disease are active when temperatures are above 45°F, so warmer winters could lengthen the season during which ticks can become infected or people can be exposed to the ticks. Higher temperatures would also make more of New England warm enough for the Asian tiger mosquito, a common carrier of West Nile virus. The number of cases may or may not increase, depending on what people do to control insect populations and avoid insect bites."[36]

Climate change will impact public health infrastructure including hospitals, health departments, emergency medical services, private practices and shelters. These impacts may be due to extreme weather events or increased use of resources to treat and shelter victims. Specifically, environmental justice communities may be most impacted by the lack access to adequate public health infrastructure, including shelter or evacuation transportation. [37]

2.4.2 Connecticut's Climate Change Initiatives

Connecticut has a variety of regulations and organizations dedicated to addressing climate change and its impacts. While Chapter 3 outlines in detail the significant progress made by regulations, state committees and tasks forces, and external organizations, Section 2.4.2 provides a brief overview of Connecticut's action on climate change:

The Adaption Subcommittee of the Governor's Steering Committee on Climate Change was formed in 2008 and was charged with the assessment of the impacts of climate change on Connecticut infrastructure, natural resources and ecological habitats, public health, and agriculture; and recommendation of adaptation strategies in accordance with the requirements of Public Act 08-98.

Pursuant to Special Act 13-9, "An Act Concerning Climate Change and Data Collection," the State of Connecticut established the Connecticut Institute for Resilience and Climate Adaptation (CIRCA). CIRCA was established in partnership with DEEP, the former OLISP, and the University of Connecticut. CIRCA is a multi-disciplinary, center of excellence that brings together experts in the natural sciences, engineering, economics, political science, finance, and law to provide practical solutions to problems arising as a result of a changing climate. The Institute helps coastal and inland floodplain communities in Connecticut better adapt to changes in climate and also make their human-built infrastructure more resilient while protecting valuable ecosystems and the services they offer to human society. CIRCA runs a Municipal Resilience Grant Program, which helps municipal governments and councils of government with initiatives that advance resilience.

[35] Climate Change Connecticut Report: The Impacts of Climate Change on Connecticut Agriculture, Infrastructure, Natural Resources and Public Health (http://www.ct.gov/deep/lib/deep/climatechange/impactsofclimatechange.pdf)
[36] EPA 2016 Report: What Climate Change Means for Connecticut (https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/climate-change-ct.pdf)
[37] Climate Change Connecticut Report: The Impacts of Climate Change on Connecticut Agriculture, Infrastructure, Natural Resources and Public Health (http://www.ct.gov/deep/lib/deep/climatechange/impactsofclimatechange.pdf)

During 2012 the Connecticut General Assembly passed Public Act 12-101, An Act Concerning the Coastal Management Act and Shoreline Flood and Erosion Control Structures. This legislation combined a number of initiatives to address sea level rise and to revise the regulatory procedures applicable to shoreline protection. Through this Act, the concept of sea level rise was incorporated into the Connecticut Coastal Management Act (CCMA)'s general goals and policies of coastal planning for the very first time

An Act Concerning the Permitting of Certain Coastal Structures by the Department of Energy and Environmental Protection (Public Act 13-179) clarifies several Connecticut statutes by making reference to the NOAA sea level rise discussions in Technical Report OAR CPO-1 (Global Sea Level Rise Scenarios for the United States National Climate Assessment, December 6, 2012). The Act also states that municipalities shall consider sea level rise when developing Plans of Conservation and Development, evacuation plan, or hazard mitigation plan.

An Act Concerning Sea Level Rise and the Funding of Projects by the Clean Water Fund (Public Act 13-15) allows DEEP to maintain a priority list of eligible water quality projects and established a system setting priority for making project grants, grant account loans and project loans. This law essentially incorporates climate change planning into funding of wastewater (sanitary sewer system and sewage treatment) projects.

An Act Concerning Climate Change Planning and Resiliency (Public Act 18-82) contains a number of provisions to reduce greenhouse gas emissions and prepare the state for the ongoing effects of climate change and sea level rise, including: Implementing an interim target to reduce greenhouse gas emissions 45 percent from a 2001 baseline by 2030 as recommended by the Governor's Council on Climate Change; Updating current statutory references to sea level rise to reflect the Connecticut Institute for Resilience and Climate Adaptation's (CIRCA) planning recommendation of nearly two feet by 2050; and Requiring all future state projects located in the Coastal Boundary that are either undertaken by a state agency or funded by a state/federal grant or loan to meet CIRCA's projections.

Executive Order 46 (2015): Established a Governor's Council on Climate Change to monitor the state's greenhouse gas emissions and make recommendations to meet the 2050 GWSA target.

Executive Order 50 (2015): Establishes the State Agencies Fostering Resilience (SAFR) Council, which is responsible for strengthening the state's resiliency from extreme weather events, including tropical storms, hurricanes, storm surges, flooding, ice storms, extreme high winds, extreme heat, and slow onset events such as sea level rise. The "SAFR Council" is responsible for working to create a Statewide Resilience Roadmap based on the best climate impact research and data and assisting OPM in the creation of a State policy on disaster resilience. SAFR interacts with CIRCA and will be involved with the NDRC-funded planning in the coming years.

DEEP's Land and Water Resources Division has taken on the responsibilities of the former Office of Long Island Sound Programs (OLISP), which administered Connecticut's Coastal Management Program. The program is approved by NOAA under the federal Coastal Zone Management Act, and has many responsibilities including the protection of natural shoreline sedimentation and erosion processes, discouraging hard shoreline flood and

erosion control structures, creating tools for assorted sea level rise scenarios, and providing guidance in coastal and climate resilience. Formerly, the Office of Long Island Sound Programs ran a number of workshops for climate change adaptation and created the Climate Adaptation Resources Toolkit (CART). The CART is a tool for one stop shopping for climate adaptation tools, resources and strategies for Connecticut communities.

The State Water Plan (2018) includes a climate change analysis that projects an increase in temperature for all calendar months and generally increased precipitation. The largest precipitation increases are projected for the wetter months, and winter and spring precipitation changes are projected to be larger than summer and autumn changes. Drier months are generally projected to remain about the same in terms of both frequency and rainfall level. Based on these results, the State Water Plan recognizes the potential for decreased water availability due to significantly higher temperatures and evapotranspiration losses, as well as the possibility that this dynamic could be offset to a certain extent by increased rainfall. The plan also acknowledges that increased temperatures coupled with increased annual precipitation generally corresponds to higher intensity storms (greater flood risk) and longer dry periods in the summer months (more frequent and/or intense droughts).

The Connecticut Green Bank is the nation's first green bank. Established by the Connecticut General Assembly on July 1, 2011 as a part of Public Act 11-80, Connecticut Green Bank supports the Governor's and Legislature's energy strategy to achieve cleaner, less expensive, and more reliable sources of energy while creating jobs and supporting local economic development. Since its inception, the Connecticut Green Bank and its private investment partners have deployed over a $1 billion in capital for clean energy projects across the state. Projects recorded through fiscal year 2016 show that for every $1 of public funds committed by the Green Bank that an additional $6 in private investment occurred in the economy.

National Disaster Resilience Program Winner: The U.S. Department of Housing and Urban Development (HUD) and the Rockefeller Foundation funded a $1 billion design competition for resilient housing and infrastructure projects. Connecticut was one of 13 winners, receiving $54,277,359 to support a pilot program in Bridgeport that is part of the broader Connecticut Connections Coastal Resilience Plan. The Coastal Resilience Plan is focused on reconnecting and protecting economically-isolated coastal neighborhoods through investments in mixed green and gray infrastructure that protect against flooding while strengthening their connectivity to existing transportation nodes.

The University of Connecticut's Center for Land Use Education and Research (CLEAR) provides information, education, and assistance to land use decision makers in support of balancing growth and natural resource protection. Their Climate Adaptation Academy (CAA) is a partnership between Connecticut Sea Grant and CLEAR to allow researchers, consultants, and others to work with municipalities and relevant professionals on climate adaptation. This program provides specialized training, such as the "Climate Adaptation Training for Coastal Communities."

Sustainable CT is a partnership of municipal leaders, residents, the Connecticut Conference of Municipalities, and people from key agencies, non-profits and businesses. The

Institute for Sustainable Energy at Eastern Connecticut State University is coordinating and supporting the initiative. Sustainable CT seeks to help cities and towns across the state become more vibrant, healthy, resilient and thriving places for all of their residents. All of Connecticut's 169 towns and cities have been represented in Sustainable CT's development in some way.

2.4.3 Local and Regional Climate Adaptation Planning

DEEP has a Municipal Climate Change Network of towns and state staff who are moving forward with cutting edge climate efforts, and a Connecticut Climate Education Communication Committee which is a varied group of educators from the private, public, and academic sector who meet virtually or in person every month to keep informed on best available science and educational practices. CHAMP is a Coastal Hazards and Management Planning section of the DEEP website that allows selection of inundation from Sea Level Rise scenarios for all Connecticut towns. The website also provides information on how to take action and can be accessed at:
http://www.ct.gov/dep/cwp/view.asp?a=2705&q=480750&depNav_GID=2022

The Sentinel Monitoring for Climate Change in Long Island Sound Program is a multidisciplinary scientific approach to provide early warning of climate change impacts to Long Island Sound (LIS) ecosystems, species and processes to facilitate appropriate and timely management decisions and adaptation responses. Current program successes include a strategic plan outlining key attributes of a sentinel and identifying 17 priority and 37 candidate sentinels for the LIS ecosystem, a website and a searchable data citation clearinghouse with links to all known LIS sentinel related data sets and local researchers, and funding for two pilot monitoring programs and a data synthesis grant that are currently underway. With a scaled up Sentinel Monitoring program, Connecticut and regional efforts can be leveraged to support key monitoring for discernible climate signals and impacts, as well as inform adaptation strategies to keep our ocean and coastal resources as healthy as possible.

New England has received numerous NOAA Grants to "accelerate the pace of municipal response to coastal climate change," Connecticut was the only state to have more than one town selected for funding of adaptation projects: Guilford for workshops/town plan and Greenwich is mapping for enhanced emergency response.

The Connecticut Adaptation Resource Toolkit (CART) was developed by the Connecticut Department of Energy and Environmental Protection and ICLEI-Local Governments for Sustainability USA (ICLEI USA) with funding from the US Environmental Protection Agency's (US EPA) Climate Ready Estuaries through the Long Island Sound Study, a national estuary program. The CART is a tool for centralized climate adaptation tools, resources and strategies for Connecticut communities It is searchable by profession type, resource type (funding, legal, education, communication tools) as well as where you are in the climate action and planning process.

The Connecticut Geological Survey has prepared digital geologic and soils data for hazards assessments and analyses through cooperative efforts with the Natural Resources Conservation Service and the U.S. Geological Survey. This data supports agency

assessments of inland and coastal flooding, shoreline erosion, and sea level rise. Information for these sources have been used in the risk assessment.

2.5 Local Plan Hazard Identification and Integration

Chapter 4 describes Local Planning Coordination in detail. Local plan hazard identification, risk assessment, potential losses, and land use derived from the 173[38] communities that have developed hazard mitigation plans follows. The most current plan document for each community was used, in some cases including drafts or expired plans. Most of the community plans are multi-jurisdictional plans developed by regional planning organizations (RPO), with the remainder being developed by and for individual communities.

2.5.1 Local Hazard Identification

Local plans and multi-jurisdiction plan annexes identified 24 distinct hazards, although not all hazards were identified in every plan. Communities used a variety of approaches with a range of complexity to rank their identified hazards. Some plans used a blend of various techniques and discussion to determine final hazard ranking. Ranking/scoring techniques used in the local plans included:

- Quantitative scoring (based on available historical data, i.e. NCEI
- Human judgment/knowledge of locality
- Numerical Scoring Worksheets (based on criteria, i.e. FEMA 386-2 worksheets)
- Interactive activities with Steering Committee Members

FEMA guidance indicates that the jurisdictions at greatest risk to specific hazards should be identified, considering both the characteristics of the hazard and the jurisdictions' degree of vulnerability. A variety of analysis methods may be sufficient to meet these goals; FEMA does not mandate a specific analysis method. As a result, many local and state plans have developed their own ranking system. None of the ranking techniques used in the local plans is incorrect, as there is no standard way to rank hazards that impact specific jurisdictions. Lack of available data for each hazard is often a driving factor in the ranking method's degree of subjectivity. The numerical rankings were frequently performed by different plan preparers, and different data processing methodologies were used. The variability in the ranking systems made it challenging to directly compare local hazard rankings to the state risk assessment.

Instead, the qualitative risk assessment information in local plans was used as a component of the composite ranking maps as discussed in the Hazard Assessment and Ranking Methodology section of this chapter. Some plans provided a direct ranking of hazards by overall risk from low to high, while others only offered general information about hazard risk. In the latter case, a ranking was assumed based on the information provided. Table 2-14 ranks each hazard based on the number of localities that ranked the hazard as High, Moderate-High, Moderate, Low-Moderate, or Low. A score of one to five

[38] Connecticut has 169 municipalities; the additional four communities include the two tribal governments and the political subdivisions of Groton, Stonington, and Fenwick

was assigned to each local plan hazard ranking (one being for low rank and five being for high rank), with a total score determined based on the mean of the individual ranks. Several local plans include hazard discussion but did not qualitatively rank them; as a result these hazards were assigned rankings based on how they were described in detail in the local plans. It is important to note that a score can be high for a particular hazard even when only a handful of communities are at risk. One example is Coastal Flooding and Storm Surge, which is evaluated in only 33 coastal communities. A high score of 3.98 is possible because the total value it is dependent only on the rankings within local plans that include the hazard, rather than the score becoming diluted by averaging across all Connecticut communities. One way to approach the overall risk score is as a measure of the risk that hazard poses to a community if it poses a hazard at all. The "Weighted Score" in Table 2-14 accounts for the number of local plans that address each hazard. This index recalculates the risk score after assigning a score of zero to a hazard in an individual plan ranking if it is not addressed in that plan. Additional details on the local plan review, hazards assessed, loss estimation and tracking information, are available in Appendix 4.

Table 2-14. Local Hazard Mitigation Plan Results of Hazard Identification

Hazard	Overall Ranking	Overall Score	Number of Local Plans	Weighted Score
Dam or Levee Failure	M	3.13	167	3.02
Drought	L-M	1.61	150	1.40
Earthquake	L-M	1.86	172	1.85
Erosion	L-M	1.85	48	0.51
Extreme Cold	M	3.00	29	0.50
Extreme Heat	M	2.82	33	0.54
Flood, Coastal & Storm Surge	M-H	3.98	40	0.92
Flood, Flash	M-H	4.38	26	0.66
Flood, Poor Drainage	M	3.36	78	1.51
Flood, Riverine	M-H	4.12	171	4.07
Hail	M	2.50	98	1.42
Hurricane	M-H	4.44	163	4.18
Ice	M-H	4.23	81	1.98
Ice Jam & Associated Flooding	L-M	1.95	22	0.25
Landslide & Mudflow	L-M	2.08	12	0.14
Land Subsidence & Sinkholes	L-M	2.33	3	0.04
Lightning	M-H	3.62	98	2.05
Sea Level Rise	M	3.03	34	0.60
Thunderstorms (Summer Storms)	M-H	4.38	124	3.14
Tornado	M	2.59	165	2.47
Tsunami	M	2.60	10	0.15
Wildfire	L-M	1.93	147	1.64
Wind	M-H	4.44	99	2.54
Winter Storm / Snow / Blizzard	H	4.90	173	4.90

Winter storms, earthquakes, and riverine floods are directly addressed and evaluated in the greatest number of local plans and multi-jurisdiction plan annexes (173, 172, and 171, respectively – there are 173 available plans and annexes). Dam or Levee Failure, Hurricanes, and Tornadoes are addressed in most plans (167, 163, 165, respectively), as are Wildfires and Thunderstorms (147 and 124, respectively). Interestingly, drought is addressed in 150 plans, despite the fact that it was consistently rated as a low risk hazard. Wildfire is addressed and assigned a low risk ranking in most plans obscuring its high ranking in only a small number of local plans. Lightning, Hail and wind are addressed, either separately or within other hazards like Hurricanes and Thunderstorms in more than half the local plans (98 and 99, respectively).Land subsidence and sinkholes are addressed in only three local plans (Cheshire, New Haven, and Sharon). Tsunami was addressed in ten coastal plans, and landslides were evaluated in twelve plans for communities located primarily the Naugatuck Valley where old mill towns were developed on steep slopes

flanking river valleys. The range of the possible "overall score" is one to five. Seven hazards scored greater than 4.0. These include flash floods, riverine floods, hurricanes, ice events, thunderstorms, wind events, and winter storms. Importantly, coastal flooding is addressed in a number of non-coastal community local plans, meaning a falsely low risk score was assigned. Despite this the coastal flooding overall risk score is relatively high (3.98). When considering hazards statewide, accounting for the number of local plans that don't consider a particular hazard, the highest ranked hazards are Winter Storms, Hurricanes, and Riverine Flood ("Weighted Score"). Considered collectively, it is clear that floods of all types, high wind events, and winter storms are of great concern to local communities. Several of the hazard categories that were addressed in the local plans are not subject to detailed analysis in this State plan update. Of the hazards considered in this update, average rankings in local and state analysis are comparable. Future local plan updates present an opportunity to address some of the ambiguity between hazard naming conventions if the State of Connecticut standardizes applicable hazard names or labeling. The State may encourage local plan revisions to approach classifying hazards in a similar fashion as done in the HIRA in this State plan update.

2.5.2 Local Plan Assessment of Potential Losses

Local hazard evaluations are highly variable. As a result, each one has its own set of criteria to develop monetary loss estimates. Many of the first-generation local plans and annexes contained loss estimates only from previous damage events, while plans developed after 2010 included FEMA's Hazus program model runs that predicted flooding, hurricane wind, and earthquake scenario events and damages. By late 2018 most local plans and annexes include Hazus results.

Table 2-15 and

Table 2-16 summarize loss estimates extracted from each local plan or annex.

Table 2-15 lists annualized loss estimates, which local plans calculated either using Hazus software, through analysis of historic event losses and frequencies, by looking at relevant annual municipal budgets, or through estimation. Average loss value provided is for a single community. Loss estimates have not been adjusted to account for inflation.

Table 2-15. Local Plan Annualized Loss Estimates by Hazard Type.

Hazard	Average	Number of Plans with Loss Estimates
Coastal	$470,120	7
Riverine	$118,742	16
Drought	$2,400	1
Dam Fail	$3,550	3
Earthquake	N/A	0
Hailstorm	N/A	0
Hurricane	N/A	0
Thunderstorm	$7,512	42
Wildfire	$8,699	13
Wind	$57,250	10
Winter Storm	$544,707	83
Tornado	$1,612	23

Table 2-16 lists loss estimates for other hazards. These were calculated using various methods and present losses for hazards of a variety of return periods. The "Methods" column summarizes both the loss calculation methodology and the return period as applicable. Average loss value provided is for a single community. Loss estimates have not been adjusted to account for inflation.

Table 2-16. Local Plan Other Loss Estimates by Hazard Type.

Hazard	Method	Average	Number of Plans with Loss Estimates
Coastal Flood	Hazus: 1% Chance Flood	$238,150,654	26
	Specific Event*	$1,295,000	1
	Total FEMA Reimbursement**	$5,849,822	12
	Average Coastal Flood	$81,765,159	-
Riverine Flood	Hazus 1% Chance Flood	$45,073,650	168
	Specific Event*	$6,460,550	38
	10% of SFHA Property Value	$292,900,000	2
	Total FEMA Reimbursement**	$1,035,458	40
	NFIP Policy Value	$13,064,233	9
	Average Inland Flood	$71,706,778	-
Drought	Specific Event*	$62,000	2
Dam Failure	Hazus***	$50,519,167	12
	Property Value***	$183,092,625	4
	Historic/Reported	$12,397,892	13
	Average Dam Failure	$82,003,228	-
Earthquake	Hazus: Worst-Case****	$401,834,841	138
Hailstorm	Specific Event*	$2,728	12
Hurricane	Hazus: 50 Year	$2,319,091	16
	Hazus: 100 Year	$18,082,460	145
	Hazus: 500 Year	$89,346,372	80
	Hazus: 1938/Cat. 3	$45,512,903	25
	Specific Event*	$9,870,849	11
Thunderstorm	None	-	0
Wildfire	None	-	0
Wind	None	-	0
Winter Storm	Specific Event*	$244,445	16
Tornado	Specific Event*	$1,682,920	30
	Specific Event* (Estimate)	$5,000,000	11
	Average Tornado	$3,341,460	-

** Specific Event: losses from specific historic events were provided. Different communities provided losses from different events, and some plans provided losses from multiple events; in the latter case, losses were averaged.*
*** Total FEMA Reimbursement: includes all PA and NFIP reimbursements provided since community joined the program*
**** Dam failure losses calculated using HAZUS flood modeling or through property value estimation utilized either the 0.2% flood zone, the 1% flood zone, or calculated dam failure inundation areas.*
***** Some plans ran HAZUS for multiple earthquake scenarios; the worst-case scenario for each community was extracted for this summary.*

One continued goal of the State plan update is to standardize the data analysis process so that future state and local plan updates are consistent and comparable, including recommendations for assigning annualized loss estimates for hazards not included in the Hazus software. Chapter 6 includes the relevant actions to reach this goal. Analysis in local plans has improved since the last State plan update, with every local plan providing at least one loss estimate, and many plans using comparable loss estimate methodologies.

2.5.3 Local Land Use

Most of the local hazard mitigation plans include a general overview of land uses and development trends. Each local hazard mitigation plan was reviewed for information on local trends. Detailed information pulled from each local plan is available in Appendix 4. The majority of the plans land use and development included population and the 2006 CLEAR data, similar to what is presented in Section 2.2.4 of this chapter.

A review of land use from the local hazard mitigation plans presents a closer look at where development is occurring across the state. Although Tolland and Windham Counties have largely remained rural, many of the other counties have seen recent development and may continue to see increased development.

Many communities in Fairfield County are projecting continued growth near Metro-North stations, including Darien, Greenwich, New Canaan, Norwalk, Stamford, Weston and Westport. Additionally, there is growth in many towns including Easton and Fairfield. Although towns such as Fairfield are limiting development in natural hazard areas like the coast and the Town of Monroe is considering designation of open space areas. Other communities, like the Town of Stratford, have indicated that growth has been directed to former industrial areas that are located within the coastal flood hazard area.

Local comprehensive plans were also referenced by several local hazard mitigation plans. It is important to combine the comprehensive plan data with hazard mitigation information so that the best information informs land use decisions that encourage resiliency.

2.6 Public Survey Results

2.6.1 2019 Plan Public Survey

For the 2019 plan update, a survey was developed to solicit input from the public on local mitigation activities and strategies. The survey was opened and posted online in May 2018 and closed in July 2018.

The hazards with the highest level of concern were winter storms and blizzards, hurricanes and tropical storms, and severe thunderstorms. Climate change was the fourth highest concern despite few respondents feeling they have already been impacted by it. The top two state actions to help communities prepare for a disaster were

- Provide technical assistance to residents, businesses and organizations to help them reduce losses from hazards and disasters; and

- Help improve warning and response systems to improve disaster management.

The most important action local communities can take according to respondents is to provide outreach and education to residents, businesses, and organizations to help them understand risks and be prepared. Further details and analysis from the public survey are provided in Section 1.10.1 of this plan.

2.6.2 2013 Plan Public Survey

For the 2013 plan update, public participation was also gathered though an internet-based survey. Survey questions related to hazard identification and recent hazards events. Several important messages were provided by the survey responders. With equal emphasis, the top two messages are to:

- Address wind and snow damage to electrical lines that results in power outages, and
- Manage flood risk zones to reduce flood damage.

Responders would like the state, municipalities, and utilities to address wind and snow damage to electrical lines by requiring, facilitating, funding, encouraging, or accomplishing trimming of tree limbs, removal of trees, burying power lines, hardening power lines, and creation of microgrids and other redundancies. Responders would like the State and its municipalities to remove structures from flood zones, prevent new buildings in flood zones, and prevent rebuilding in flood zones after damage occurs. While many of the responders were speaking of inland and coastal flood zones, some of them chose to emphasize retreat from the shoreline.

It is notable that many of the responses to the survey were heavily influenced by the damage to power lines caused by Hurricane Irene and Winter Storm Alfred in 2011, and flooding caused by Hurricanes Irene and Sandy in 2011 and 2012, respectively.

2.7 Hazard Analysis and Ranking Methodology

The hazard identification and risk assessment provides a consistent basis for developing mitigation strategies and for prioritizing those jurisdictions that are most threatened and vulnerable to natural hazards. This section details the risk assessment process and the methods used to rank hazard risk. Results from this process and accompanying methods will be presented in hazard-specific sections that follow.

For the purposes of compliance with the Disaster Mitigation Act, the plan update only fully addresses the hazards identified by the SHMP Team as significant in Connecticut. Additional hazards may be more formally addressed during future plan updates as their significance warrants.

2.7.1 Ranking Methodology

For the plan update, a standardized methodology was developed to compare different hazards' risk on a jurisdiction (County) scale, as decided by the Mitigation Planning Team.

This method prioritizes hazard risk based on quantitative factors extracted from NCEI and other available data sources.

In order to compare NCEI data values, events and damages were annualized. This was accomplished by taking the parameter of interest and dividing by the length of record for each hazard. Annualizing the data provides an estimate of how many hazard occurrences can be expected from each hazard annually.

Nine ranking parameters were used to determine jurisdiction risk based hazard rankings. Each parameter was rated on a scale of 1 through 5, with those rated 5 considered high risk and those rated at 1 considered low risk. Population density and building permits were each given a weight of 0.5 relative to all other parameters. While building permit data and housing stock changes showed consistent results when evaluating construction trends, building permit data was used instead of housing stock changes to better capture additional growth activity not captured by new structures alone. Hazard Concern Ranking and Local Plan Hazard Ranking were each given a weight of one relative to all other parameters. Geographic extent was weighted at 1.5. Annualized events, annualized losses, death/injuries count as well as critical infrastructure exposure were each given a weight of 1. Scores were summed by jurisdiction for each hazard separately, allowing for impartial comparison between jurisdictions for each hazard. A summation of all the scores for all stated hazards in each jurisdiction provides a composite risk rank useful in prioritization.

Comparing and prioritizing risk posed by different hazards requires a system for equalizing the units of analysis. Since many of the hazards assessed in this plan do not have quantifiable probability or impact data, some semi-quantitative scoring was used in the ranking algorism used to compare hazards. An overview of the parameters used in ranking follows. Appendix 2 includes the NCEI storm events data and ranking spreadsheet used for this analysis.

2.7.2 Population Vulnerability and Building Permits

Population density is an important factor in the risk assigned to any jurisdiction. A hazard event that occurs in a highly populated jurisdiction generally has a much higher impact compared to an event that takes place in a very rural, sparsely populated jurisdiction. Two population related parameters were used to account for jurisdictions with high populations and jurisdictions with densely populated areas. Each of these parameters was given a weight of 0.5 in an effort to avoid biasing the composite ranking with population data. The 2019 plan update includes revised population values based on DECD was used for the 2012 building permits and UCONN CT state data center for the 2025 population projections.

Population parameters were calculated as the percent of the total population of Connecticut present in each jurisdiction. A value between 1 and 5 was assigned based on a geometric breaks pattern. By ranking jurisdictions in this fashion, those jurisdictions with significantly larger populations or potential future growth have effectively been given extra weight.

2.7.3 Probability of Future Events

NCEI record of historical occurrences of hazards is an important factor in determining where hazards are likely to occur in the future, although it lacks a comprehensive dataset for all hazards. Annualizing this database provides a rough estimate of the number of times a jurisdiction might experience a particular hazard event in any given year. This was accomplished using an approach similar to the other methods described above. For each hazard type in each jurisdiction, the total number of events in the NCEI database was divided by the total years of record for each hazard to calculate an annualized events value. Table 2-5 shows the classifications used for establishing the probability of future events in Connecticut. Events with a 500-year recurrence interval were given a classification of low for probability of future events and hazards with greater than five events annually are classified as a high probability of occurrence.

When applicable, NCEI event totals have been supplemented with additional sources. Hurricane, wildland fire, dam failure, and earthquake were supplemented with information from the SHMP Team, CT Division of Forestry, NPDP, CT DEEP, and the CT State Geologist. The hazard specific sections further detail the probability of future events for the counties and State as a whole.

Table 2-17: Probability of Future Events Classification

Annualized Events	Probability of Future Occurrence
< .002 events/year	Low
0.002 – 1 events/year	Medium-Low
1 – 5 events/year	Medium-High
>5 events/year	High

2.7.4 Property Damage

Property damage was analyzed separately, and each jurisdiction was assigned a score of 1 to 4 for each damage parameter. The data was obtained from the NCEI storm events database, inflated into 2017 dollars, and annualized according to the period of record for each event category.

2.7.5 Deaths and Injuries

Examination of the historical record for events causing deaths and injuries is an important step in determining risk ranking. Hazards having no reported deaths or injuries were assigned a ranking of 1, and hazards resulting in at least one death or injury were assigned a ranking of 4.

2.7.6 Local Mitigation Plan Ranking

Local mitigation plans were reviewed for ranking methodology, loss estimates, and risk to facilities (see Chapter 4). The parameter integrates local planning results into the state

plan. Section 1.5 of this chapter provides information on how the plans were reviewed and summarized for incorporation into the ranking formula.

2.7.7 Geographic Extent

Most hazards have defined geography where it is more likely the hazard will occur in the future. To be able to include this in the ranking system, each hazard has been assigned individual scores based on the available hazard data. Geographic extent was given a 1.5 weighting relative to the other parameters, as geographic extent was deemed critically important. Data sources for geographic extent are shown in Table 2-18.

Table 2-18: Sources for Geographic Extent

Hazard	Data Source
Dam Failure	Number of NPDP/NID high or significant dams
Drought	Extent assumed to be uniform across Connecticut
Earthquake	Hazus 500-year Peak Ground Acceleration
Flood	FEMA DFIRMS and Hazus derived floodplains (depth-grids)
Sea Level Rise	NOAA Office for Coastal Management Sea Level Rise Viewer (inland extent and relative depth of inundation)
Thunderstorm Wind	NOAA NCEI Storm Events per square mile
Tornadoes	NOAA NCEI Storm Events per square mile
Tropical Cyclone	Hazus 100-year wind speeds
Wildland Fire	Percent land areas within Wildland Urban Interface (WUI) zones (interface or intermix)
Winter Storm	NWS Weather station data average annual snowfall

2.7.8 Hazard Concern Ranking

In the Public Survey described in detail in Section 1.6, respondents were asked to rank their concern about different natural hazards as low, moderate, or high. A weighted average of the results yields a prioritized list of hazard concerns as identified by the public. This parameter was a new addition to the hazard ranking formula for the 2019 update.

2.7.9 Critical Facilities

The number of critical facilities impacted by each hazard has also been included as a measure of damage. The ratio of number of impacted critical facilities to the total number of critical facilities was used to create a ranking for each hazard by county, and then included in the composite ranking formula. This parameter was a new addition to the hazard ranking formula for the 2019 update.

2.7.10 Composite Hazard Ranking

Composite risk for each jurisdiction was determined by combining the scores for population density, building permits, annualized events, property damage, local plan rankings, geographic extent, public survey hazard concern ranking, critical facilities, and injuries and deaths for each hazard.

The composite or total hazard score for Connecticut was determined by calculating the average hazard risk for each county and using quartiles to assign the ranking. Ranking results and analyses are available in Section 1.29 and in each hazard ranking section for each hazard.

2.7.11 Limitations of Ranking

The NCEI data, described above, is not a complete data source. It was chosen for use in ranking because of its standardized collection of many of the hazards that impact Connecticut. Future plan updates and mitigation actions should assess the availability and creation of other data sources ensure the parameters are still valid for ranking the hazards.

The NWS does not guarantee the accuracy or validity of the information used for weather-related hazards. Although the historical records in the database often vary widely in their level of detail, the NWS does have a set of guidelines for use in the preparation of event descriptions.[39]

2.8 HIRA Hazard Specific Sections

The following subsections present a description of each type of natural hazard Connecticut may expect to experience, as determined by the SHMP team. Each natural hazard sub-category contains general information, past history, future risk, and vulnerability.

Climate change will very likely have an increasingly significant impact on some types of natural disasters in Connecticut (see Section 2.4). The state and municipalities must consider scientists' projections of climate impacts on sea level, precipitation, storm intensity, flooding, drought, and other natural disasters as they plan for the future.

2.9 Dam Failure Hazard Profile

2019 Plan Update Changes

- The hazard profile has been significantly enhanced to include a detailed hazard description, location, extent, previous occurrences, probability of future occurrence, and potential change in climate and its impacts on the drought hazard is discussed
- New and updated figures from federal and state agencies are incorporated
- State and federal agencies responsibilities for oversight of Connecticut dams were incorporated

[39] National Weather Service Instruction 10-1605. Operations and Services Performance: Storm Data Preparation Guide. March 23, 2016. Available at: https://www.ncdc.noaa.gov/stormevents/pd01016005curr.pdf

- Previous occurrences were updated with events

2.9.1 Hazard Description

A dam is an artificial barrier that has the ability to store water, wastewater, or liquid-borne materials for many reasons (flood control, human water supply, irrigation, livestock water supply, energy generation, containment of mine tailings, recreation, or pollution control. Many dams fulfill a combination of the stated functions. They are an important resource in the United States.[40]

Man-made dams can be classified according to the type of construction material used, the methods used in construction, the slope or cross-section of the dam, the way the dam resists the forces of the water pressure behind it, the means used for controlling seepage, and, occasionally, according to the purpose of the dam. The materials used for construction of dams include earth, rock, tailings from mining or milling, concrete, masonry, steel, timber, miscellaneous materials (plastic or rubber), and any combination of these materials.[40]

More than a third of the country's dams are 50 or more years old. Approximately 14,000 of those dams pose a significant hazard to life and property if failure occurs. There are also about 2,000 unsafe dams in the United States, located in almost every state.

Dam failures can result from natural events, human-induced events, or a combination, Failures due to natural events such as prolonged periods of rainfall and flooding can result in overtopping, which is the most common cause of dam failure. Overtopping occurs when a dam's spillway capacity is exceeded and portions of the dam not designed to convey flow begin to pass water, erode away, and ultimately fail. Other causes of dam failure include design flaws, foundation failure, internal soil erosion, inadequate maintenance, or mis-operation. Complete failure occurs if internal erosion or overtopping results in a complete structural breach, releasing a high-velocity wall of debris-laden water that rushes downstream damaging or destroying everything in its path. An additional hazard concern is the cascading effect of one dam failure causing multiple dam failures downstream due to the sudden release of flow.

While dam failures that occur during flood events compound an already tenuous situation and are certainly problematic, the dam failures that occur on dry days are the most dangerous. These "dry day" dam failures typically occur without warning, and consequently, downstream property owners and others in the vicinity are more vulnerable to being unexpectedly caught in life threatening situations than failures during predicted flood events.

Regulatory Oversight for Dams

The potential for catastrophic flooding caused by dam failures led to the passage of the National Dam Safety Act (Public Law 92-367). The National Dam Safety Program (NDSP) has been used for 30 years to protect Americans from dam failure. The NDSP is a partnership of the states, federal agencies, and other stakeholders that encourages individual and community responsibility for dam safety. Under FEMA's leadership, state

[40] http://www.damsafety.org/news/?p=e4cda171-b510-4a91-aa30-067140346bb2

assistance funds have allowed all participating states to improve their programs through increased inspections, emergency action planning, and the purchase of needed equipment. Connecticut is one of those participating states. FEMA has also expanded existing training programs and initiated new training programs. Grant assistance from FEMA provides support for the improvement of dam safety programs that regulate most of the dams in the U.S.[41]

Connecticut Department of Energy & Environmental Protection (CT DEEP) – Connecticut Dam Safety Program

The Dam Safety Section of the Land and Water Resources Division is charged with the responsibility for administration and enforcement of Connecticut's dam safety laws. The existing statutes require that permits be obtained to construct, repair or alter dams, dikes or similar structures and that existing dams, dikes and similar structures be registered and periodically inspected to assure that their continued operation and use does not constitute a hazard to life, health or property. The dam safety statutes are codified in Section 22a-401 through 22a-411 inclusive of the Connecticut General Statutes. Sections 22a-409-1 and 22a-409-2 of the Regulations of Connecticut State Agencies, have been enacted which govern the registration, classification, and inspection of dams.[42]

Connecticut requires owners of dams of all hazard classes register their dam and provide information to the Commissioner of CT DEEP. To date, the state keeps an inventory of 4,800 dams in Connecticut, 3,088 of which have been registered with the CT DEEP.[42]

Dam Inspection Regulations require that high, significant, and some moderate hazard class dams (over 600 dams) in Connecticut be inspected annually. Dams which pose the greatest potential threat to downstream persons and properties are given priority for inspection. A limited number of lower hazard dams which have not been inspected in the past twenty years are also targeted for inspection. Other structures are inspected as time and funding permit, and upon notification of potentially significant deficiencies or emergency conditions. [42]

Dams found to be unsafe after inspection are required to be repaired by the owner. Depending on the severity of the identified deficiency, an owner is allowed reasonable time to make the required repairs or to remove the dam. If a dam owner fails to make the necessary repairs, the Department may issue an administrative order requiring the owner to restore the structure to a safe condition and may refer noncompliance with such an order to the Attorney General's Office for enforcement. As a means of last resort, the Commissioner is empowered by statute to remove or correct, at the expense of the owner, any unsafe structures which present a clear and present danger to public safety. [42]

[41] http://www.fema.gov/about-national-dam-safety-program
[42] http://www.ct.gov/deep/cwp/view.asp?a=2720&q=325632&deepNav_GID=1654

U.S. Army Corps of Engineers Dam Safety Program

The U.S. Army Corps of Engineers (USACE) is responsible for safety inspections of some federal and non-federal dams in the United States that meet the size and storage limitations specified in the National Dam Safety Act. USACE has inventoried dams and has surveyed each state and federal agency's capabilities, practices, and regulations regarding design, construction, operation, and maintenance of the dams. USACE has also developed guidelines for inspection and evaluation of dam safety.[43]

Federal Energy Regulatory Commission Dam Safety Program

The Federal Energy Regulatory Commission (FERC) has the largest dam safety program in the United States. FERC cooperates with a large number of federal and state agencies to ensure and promote dam safety and, more recently, homeland security. There are 3,036 dams that are part of regulated hydroelectric projects and are included in the FERC program. Two-thirds of these are more than 50 years old. As dams age, concern about their safety and integrity grows, so oversight and regular inspection are important. FERC staff inspects hydroelectric projects on an unscheduled basis to investigate the following:

- Potential dam safety problems
- Complaints about constructing and operating a project
- Safety concerns related to natural disasters
- Issues concerning compliance with the terms and conditions of a license.44

Every five years, an independent consulting engineer, approved by the FERC, must inspect and evaluate projects with dams higher than 32.8 feet (10 meters) or with a total storage capacity of more than 2,000 acre-feet.[44]

FERC monitors and evaluates seismic research in geographic areas where there are concerns about seismic activity. This information is applied in investigating and performing structural analyses of hydroelectric projects in these areas. FERC staff also evaluates the effects of potential and actual large floods on the safety of dams. During and after floods, FERC staff visits dams and licensed projects, determines the extent of damage, and directs any studies or remedial measures the licensee must undertake. FERC's *Engineering Guidelines for the Evaluation of Hydropower Projects* guides the FERC engineering staff and licensees in evaluating dam safety. The publication is frequently revised to reflect current information and methodologies. [44]

FERC requires licensees to prepare emergency action plans and conducts training sessions on how to develop and test these plans. The plans outline an early warning system if there is an actual or potential sudden release of water from a dam failure. The plans include operational procedures that may be used, such as reducing reservoir levels and reducing downstream flows, as well as procedures for notifying affected residents and agencies responsible for emergency management. These plans are frequently updated and tested to ensure that everyone knows what to do in emergency situations. [44]

[43] http://www.publications.usace.army.mil/Portals/76/Publications/EngineerRegulations/ER_1110-2-1156.pdf
[44] https://www.ferc.gov/industries/hydropower/gen-info/regulation/dam-safety.asp

2.9.2 Location

The National Inventory of Dams (NID) consists of dams meeting at least one of the following criteria;

- High hazard potential classification - loss of human life is likely if the dam fails,
- Significant hazard potential classification - no probable loss of human life but can cause economic loss, environmental damage, disruption of lifeline facilities, or impact other concerns,
- Equal or exceed 25 feet in height and exceed 15 acre-feet in storage,
- Equal or exceed 50 acre-feet storage and exceed 6 feet in height.

According to the NID there are 90,580 dams in the United States that meet NID criteria. Of these 87,359 dams, federal agencies own 3,381; state agencies own 6,622; local agencies own 18,091; public utilities companies own 3,846; and private entities or individuals own 58,148. Ownership to 492 dams is not listed. Figure 2-6 displays the location of these dams throughout the United States. The NID categorizes the dams according to their primary function:

- Recreation – 28% (25,394 dams)
- Flood Control – 17.9% (16,179 dams)
- Fire Protection – 11.9% (10,781 dams)
- Other – 9.3% (8,462 dams)
- Irrigation – 8.5% (7,706 dams)
- Undetermined – 7.2% (6,526 dams)
- Water Supply – 6.2% (5,628 dams)
- Fish and Wildlife – 5.4% (4,930 dams)
- Hydroelectric – 2.3% (2,114 dams)
- Tailings – 1.3% (1,172 dams)
- Grade Stabilization – 1% (906 dams)
- Debris Control – 0.6% (575 dams)
- Navigation – 0.2% (207 dams)[45]

[45] http://nid.usace.army.mil/cm_apex/f?p=838:12

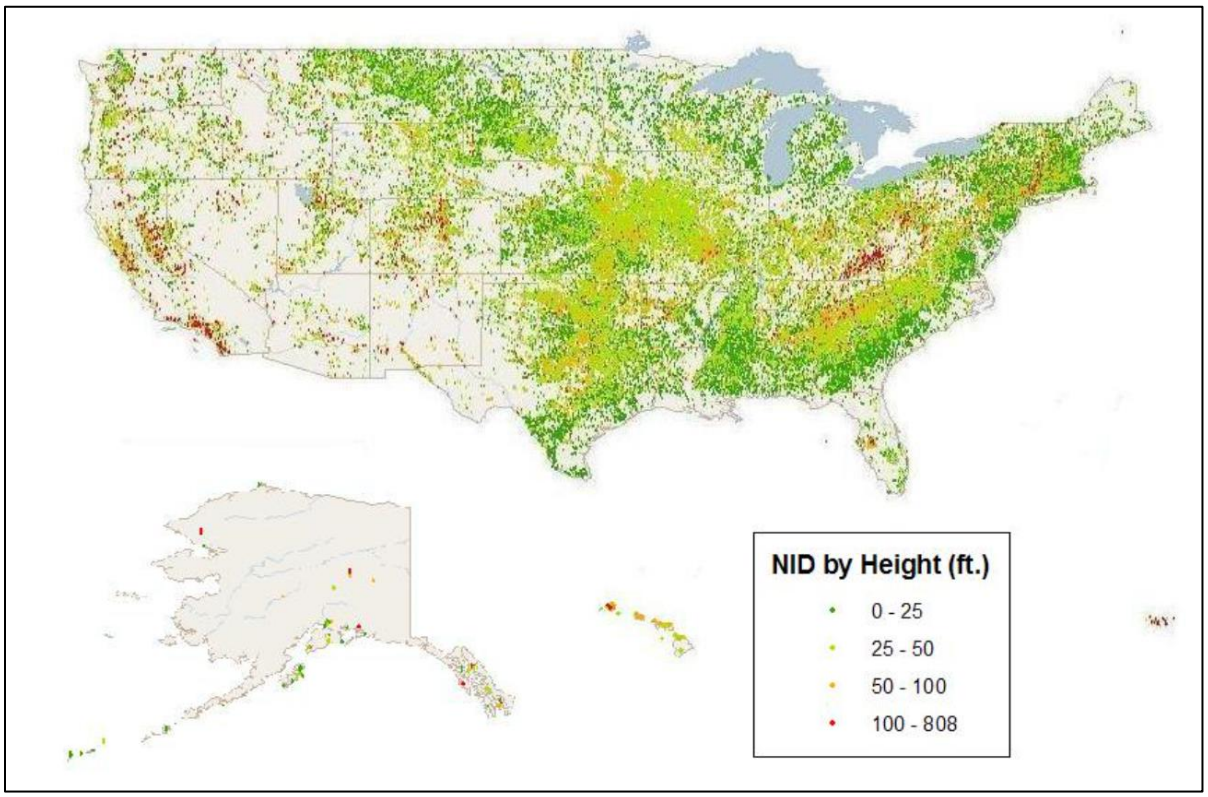

Figure 2-6: Locations of Dams in the United States (National Inventory of Dams)

Figure 2-6 displays the location of all dams in the US. According to the NID, there are 746 dams in Connecticut that meet NID criteria. This locations of these dams is shows in Figure 2-8. Of these 746 dams, federal agencies own 18; State agencies own 136; local agencies own 181; public utilities companies own 105; and private entities or individuals own 306. Forty percent of the dams in Connecticut are owned by private entities or individuals and the federal government owns the least number (~2%) of all dams in Connecticut.

The NID categorizes the dams according to their primary function (Figure 2-7):

- Recreation – 57.4% (428 dams)
- Water Supply – 22% (164 dams)
- Flood Control – 8.4% (63 dams)
- Hydroelectric – 5.5% (41 dams)
- Fish and Wildlife – 2.9% (22 dams)
- Other – 2.1% (16 dams)
- Irrigation – 1% (8 dams)
- Undetermined – 0.4% (3 dams)
- Fire Protection – 0.1% (1 dams)

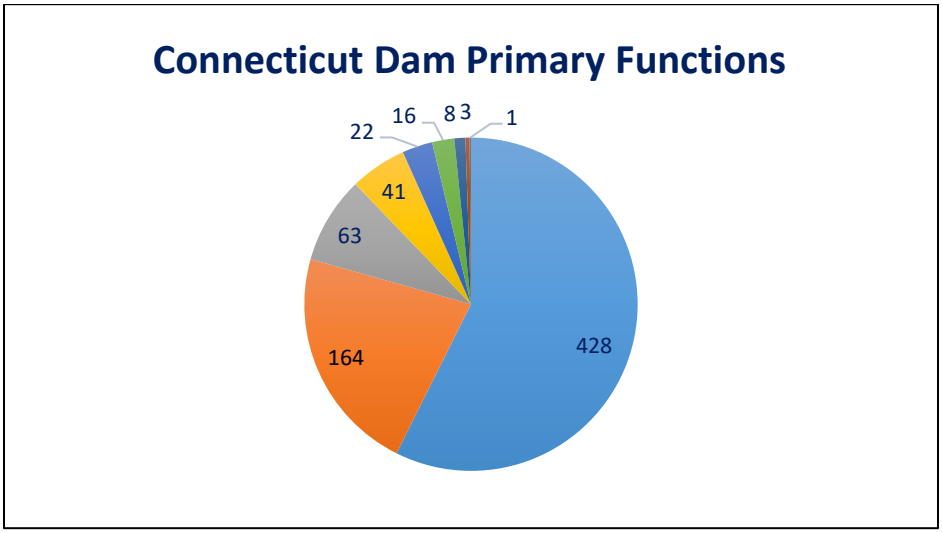

Figure 2-7: Number of Dams in Connecticut, by Primary Function

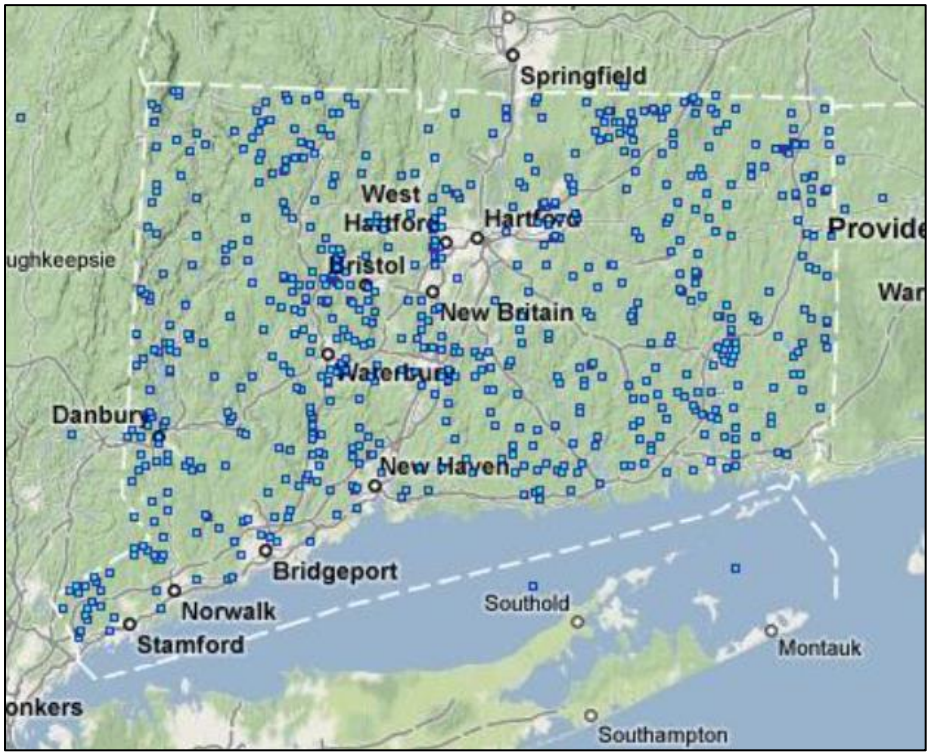

Figure 2-8: Locations of Dams in Connecticut (National Inventory of Dams)

According to the Dam Incident Notification (DIN) system maintained by the National Performance of Dam Program (NPDP), there are 754 dams in the State of Connecticut. Of the 754 dams, there are 48 classified as low hazard (Class A), 444 classified as significant hazard (Class B), 232 classified as high hazard (Class C), and 30 having an unknown classification (NPDP 2018). However, these numbers differ from the CT DEEP, who keeps its own records of state regulated dams. As of January 21, 2016, CT DEEP identifies 1,348

state regulated dams (high, significant, and moderate hazard dams). Of that number, 288 have high hazard potential (Hazard Class C), 296 have significant hazard potential (Hazard Class B), and 764 have moderate hazard potential (Hazard Class BB).[46] CT DEEP data is used for the purpose of this HMP update.

2.9.3 Extent

The extent or magnitude of a dam failure event can be measured in terms of the classification of the dam. FEMA has three classification levels of dams: low, significant, and high. The classification levels build on each other. The hazard potential classification system should be used with the understanding that the failure of any dam or water-retaining structure could represent a danger to downstream life and property.[47]

- Low hazard potential dams are those where failure or mis-operation results in no probable loss of human life and low economic and/or environmental losses. Losses are principally limited to the owner's property.
- Significant hazard potential dams are those where failure or mis-operation results in no probable loss of human life but can cause economic loss, environmental damage, disruption of lifeline facilities, or can impact other concerns. Significant hazard potential classification dams are often located in predominately rural or agricultural areas.
- High hazard potential dams are those where failure or mis-operation will probably cause loss of human life.

USACE developed the classification system shown in

[46] http://www.ct.gov/deep/cwp/view.asp?a=2720&q=325634&deepNav_GID=1625%20
[47] http://www.fema.gov/media-library-data/20130726-1516-20490-7951/fema-333.pdf

Table 2-19 for the hazard potential of dam failures. USACE hazard rating systems is based only on the potential consequences of a dam failure; it does not take into account the probability of such failures.

Table 2-19. U.S. Army Corps of Engineers Hazard Potential Classification

Hazard Category[a]	Direct Loss of Life[b]	Lifeline Losses[c]	Property Losses[d]	Environmental Losses[e]
Low	None (rural location, no permanent structures for human habitation)	No disruption of services (cosmetic or rapidly repairable damage)	Private agricultural lands, equipment, and isolated buildings	Minimal incremental damage
Significant	Rural location, only transient or day-use facilities	Disruption of essential facilities and access	Major public and private facilities	Major mitigation required
High	Certain (one or more) extensive residential, commercial, or industrial development	Disruption of essential facilities and access	Extensive public and private facilities	Extensive mitigation cost or impossible to mitigate

a. Categories are assigned to overall projects, not individual structures at a project.
b. Loss-of-life potential is based on inundation mapping of area downstream of the project. Analyses of loss-of-life potential should take into account the population at risk, time of flood wave travel, and warning time.
c. Lifeline losses include indirect threats to life caused by the interruption of lifeline services from project failure or operational disruption; for example, loss of critical medical facilities or access to them.
d. Property losses include damage to project facilities and downstream property and indirect impact from loss of project services, such as impact from loss of a dam and navigation pool, or impact from loss of water or power supply.
e. Environmental impact downstream caused by the incremental flood wave produced by the project failure, beyond what would normally be expected for the magnitude flood event under which the failure occurs.

Source: U.S. Army Corps of Engineers 1995

According to the CT DEEP, there are five hazard potential classifications of dams in Connecticut. The classifications relate to the potential for property damage and/or loss of life in the event of a dam failure and dictate inspection frequency requirements:

- **Class AA: Negligible Hazard Potential.** A dam would be considered to have negligible downstream hazard potential if, were it to fail, it would cause no measurable damage to roadways, land and structures, and negligible economic loss. Examples are a dam located just above a large body of water such as a major river which could easily absorb the entire discharge of the released impoundment or a dam and pond so small that the volume of water if released suddenly would cause no damage. Once the Negligible hazard classification is field verified, there is no periodic inspection requirement for dams in this hazard classification.
- **Class A: Low Hazard Potential.** A dam would be considered to have a low downstream hazard potential if, were it to fail, it would cause damage to agricultural land, damage to unimproved roadways, and/or minimal economic loss. The periodic inspection frequency for low hazard dams is 10 years.
- **Class BB: Moderate Hazard Potential.** A dam would be considered to have a moderate downstream hazard potential if were it to fail, it would cause damage to normally unoccupied storage structures, damage to low volume roadways, and/or moderate economic loss. The periodic inspection frequency for moderate hazard dams is 7 years.
- **Class B: Significant Hazard Potential.** A dam would be considered to have a significant downstream hazard potential if were it to fail, it would cause possible

loss of life; minor damage to habitable structures, residences, hospitals, convalescent homes, schools, etc.; damage to or interruption of the use or service of utilities; damage to primary roadways and railroads; or significant economic loss**.** The periodic inspection frequency for significant hazard dams is 5 years.

- **Class C: High Hazard Potential.** A dam would be considered to have a high downstream hazard potential if were it to fail, it would cause probable loss of life; major damage to habitable structures, residences, hospitals, convalescent homes, schools, etc.; damage to main highways; or great economic loss**.** The periodic inspection frequency for high hazard dams is 2 years.[48]

Table 2-20 summarizes the number of State-owned dams and their hazard classifications, by County. Figure 2-29 shows the location of all state-regulated dams in Connecticut according to their assigned hazard potential along with the available mapped inundation areas. In addition, the 266 state-owned dams in the state are highlighted in green on the map. Table 2-21 lists the number of dams located in each county, according to their hazard classification. Every county in Connecticut has at least one high hazard dam located within its boundaries. Fairfield County and New Haven County have the highest number of high hazard dams in the State.

Table 2-20. State-owned dams in each county, by hazard potential.

County	C-High Hazard	B-Significant Hazard	BB-Moderate Hazard	A-Low Hazard	AA-Negligible Hazard
Fairfield	3	0	3	8	0
Hartford	12	4	7	15	0
Litchfield	12	5	4	9	1
Middlesex	7	10	10	7	2
New Haven	8	6	3	9	1
New London	3	9	15	24	1
Tolland	6	9	10	11	0
Windham	1	1	16	12	0
Total	52	44	68	95	5

[48] http://www.ct.gov/deep/lib/deep/water_inland/dams/owner_responsible_inspection_information.pdf

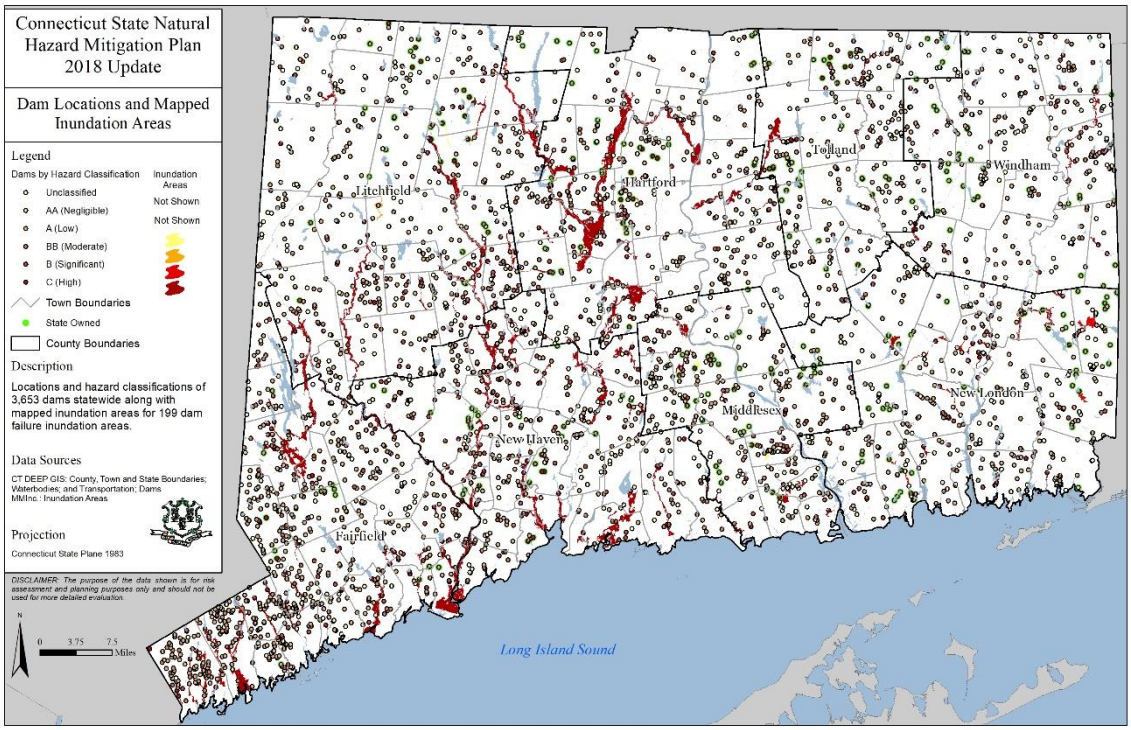

Figure 2-9: Locations of state-regulated dams

Table 2-21. Number of Dams by County in Connecticut, Hazard Potential.

County	High Hazard	Significant Hazard	Moderate Hazard	Low Hazard	Negligible Hazard	Unclassified	Total
Fairfield	44	84	84	460	4	105	781
Hartford	37	49	54	217	1	117	475
Litchfield	43	75	72	225	6	127	548
Middlesex	16	47	56	138	4	71	332
New Haven	55	78	63	178	3	94	471
New London	18	50	49	191	1	136	445
Tolland	14	37	39	121	2	74	287
Windham	10	29	64	120	6	78	307
Total	237	449	481	1,650	27	802	3,646

2.9.4 Primary and Secondary Impacts

Dam failure can primarily cause severe downstream flooding, depending on the magnitude of the failure. Other potential secondary hazards of dam failure are landslides around an impoundment perimeter, bank erosion on the rivers, and destruction of downstream habitat. Dam failures can occur as a result of structural failures, such as progressive

erosion of an embankment or overtopping and breaching by a severe flood. Earthquakes may weaken dams. Floods caused by dam failures have caused loss of life and property damage.

2.9.5 Severity

USACE developed a classification system for the hazard potential of dam failures. USACE's hazard rating system is based only on the potential consequences of a dam failure; it does not take into account the probability of such failures. The worst-case scenario would be a failure of one of Connecticut's 278 high-hazard dams. The result could be severe damage to downstream communities and the potential for loss of life.

Flood severity from a dam failure can be measured with a low, medium, or high severity level, which are further defined as follows:

- Low severity - No buildings are washed off their foundations; structures are exposed to floodwater depths of less than 10 feet.
- Medium severity - Homes are destroyed but trees or mangled homes remain for people to seek refuge in or on; structures are exposed to floodwater depths of more than 10 feet.
- High severity - Floodwaters sweep the area and nothing remains. Locations are flooded by the near instantaneous failure of a concrete dam, or an earthfill dam that turns into "jello" and washes out in seconds rather than minutes or hours. In addition, the flooding caused by the dam failure sweeps the area clean and little or no evidence of the prior human habitation remains after the floodwater recedes (Graham 1999).

Two factors that influence the potential severity of a full or partial dam failure are: (1) the amount of water impounded; and (2) the density, type, and value of development and infrastructure located downstream.[49]

2.9.6 Warning Time

Dams can fail with little warning. Intense storms may produce a flood in a few hours or even minutes for upstream locations. Flash floods can occur within six hours of the beginning of heavy rainfall, and dam failure may occur within hours of the first signs of breaching. Other failures and breaches can take much longer to occur, from days to weeks, as a result of debris jams, the accumulation of melting snow, buildup of water pressure on a dam with deficiencies after days of heavy rain, etc. Flooding can occur when a dam operator releases excess water downstream to relieve pressure from the dam.[50]

Warning time for dam failure varies depending on the cause of the failure. In extreme precipitation or rapid snowmelt events, evacuations can be planned with sufficient time. In the event of a structural failure because of earthquake, there may be no warning time. A dam's structural type also affects warning time. Earthen dams do not tend to fail

[49] City of Sacramento. 2005. "Sacramento 2030 General Plan.". On-Line Address: http://www.sacgp.org/
[50] FEMA. 2013b. "Why Dams Fail." October 22. On-Line Address: http://www.fema.gov/why-dams-fail

completely or instantaneously. Once a breach is initiated, discharging water erodes the breach until either the reservoir water is depleted or the breach resists further erosion. Concrete gravity dams also tend to have a partial breach as one or more monolith sections are forced apart by escaping water. The time of breach formation ranges from a few minutes to a few hours.

High and significant hazard dam owners are required to prepare and maintain Emergency Action Plans (EAP). The EAP is to be used in the event of a potential dam failure or uncontrolled release of stored water. Owners are also required to have established protocols for flood warning and response to imminent dam failure in the flood warning portion of its adopted emergency operations plan. These protocols are tied to the emergency action plans also created by the dam owners. These documents are customarily maintained as confidential information, although copies are required to be provided to the CT DEEP for response purposes. State and local Offices of Emergency Management also have copies of the approved EAPs.

2.9.7 Previous Occurrences and Losses

Connecticut has experienced many dam failures, mainly resulting from significant rainfall events that led to major flooding. They often occur suddenly and without warning. Dam failures may occur during normal operation conditions, referred to as a "sunny day" failure. Historically, however, the consequences of dam failures have not been well documented. Descriptions of previous dam failure events provided in this section are based on anecdotal data from CT DEEP in combination with data available from the National Performance of Dams Program (NPDP) at Stanford University, the Association of State Dam Safety Officials, and NCEI.

This section provides details about significant dam failure events that occurred in Connecticut. Numerous sources provided historical information regarding previous occurrences and losses associated with dam failure events throughout the State; therefore, loss and impact information could vary depending on the source. The accuracy of monetary figures and event details is based only on the available information identified during research for this HMP.

One of the worst known dam failures in Connecticut occurred in March 1963, when Spaulding Pond Dam in Norwich (New London County) failed, causing six fatalities and more than $6 million in damages (1963 dollars). Two years earlier, in April 1961, Crystal Lake Dam in Middletown (Middlesex County) burst, injuring three people, severely damaging 11 homes, and causing an estimated $600,000 in damages (1961 dollars).

On the weekend of June 5-6, 1982, Connecticut suffered one of its worst floods since 1955. Throughout the state, 17 dams failed and another 31 dams were seriously damaged due to a rainfall event that produced up to 18 inches of rain and resulted in damages totaling $70 million. This event included the failure of the Bushy Mill Pond Dam in Deep River (Middlesex County), which caused an estimated $1 million in damage according to the NPDP database (Figure 2-10).

Figure 2-10: Downstream damage due to the 1982 Bushy Hill Pond Dam Break

In June 2001, torrential rainfall associated with the remnants of Tropical Storm Allison caused a private dam in Hampton (Windham County) to fail, which closed a portion of Route 97, but according to NCEI data resulted in no reported damages.

In October 2005, Connecticut experienced moderate to major flooding statewide. Major flooding occurred in several river basins in Hartford and Tolland counties and widespread moderate flooding was experienced across the rest of the state. Flood flow frequencies exceeded a 100-year event in parts of north-central and northeastern Connecticut. CT DEEP is aware of 14 dams which completely failed or partially failed in Hartford and Tolland counties. Another 30 dams were damaged throughout Connecticut. Several bridges failed and several dozen roads were washed out or undermined. Thousands of homes experienced flooded basements and evacuations were conducted in dozens of towns due to severe flooding. As a result of the flooding that resulted in an estimated $42 million in damages, with more than 5,200 homes and 355 businesses impacted, President Bush declared Litchfield, New London, Tolland, and Windham counties disaster areas.

According to the NPDP database, there are 24 incidents recorded as dam failures in the state since 1877, of which 10 are attributed to the 1982 flood event. The NPDP database does not include any of the reported dam failure events from 2005. Further, exact numbers of dam failures caused by Connecticut's record flood events in 1938 and 1955 are not available, but anecdotal information suggests that many more dams were damaged during those storm events than in the more recent 1982 or 2005 flood events.

Table 2-22 provides a history of recorded consequences for dam failure events in Connecticut according to the NPDP database.

Table 2-22. NPDP Total Dam Failure Events

County	Number of Events	Property Damages
Fairfield	3	Undocumented
Hartford	0	Undocumented
Litchfield	4	$150,000.00
Middlesex	7	$1,190,400.00
New Haven	1	Undocumented
New London	3	$3,078,000.00
Tolland	5	$117,430.00
Windham	1	$250,000.00
Total	24	$4,785,830.00

FEMA Disaster Declarations

To date, Connecticut has had no FEMA Disaster Declarations specifically due to dam release.[51]

2.9.8 Probability of Future Events

Dam failure events are infrequent and usually coincide with events that cause them, such as earthquakes, landslides, and excessive rainfall and snowmelt. While considered an unlikely occurrence, the potential for dam failure in Connecticut is a significant concern given the large number of dams across the state and numerous dam failure events in the past. The probability of future dam failure events is not easily measured, but correlates with the probability of future major flood events coupled with preventative measures, including the routine inspection, maintenance, repair, and proper operation of dams by their owners, and as regulated by CT DEEP's Dam Safety Section.

The Dam Safety Section is tasked with monitoring routine inspection and maintenance of those dams that present the greatest risk or are in need of structural repair. State regulations require that over 600 dams in Connecticut must be inspected annually, with priority placed on dams which pose the greatest potential threat to downstream persons and properties. Other structures are inspected as time and funding permit, and upon notification of potentially significant deficiencies or emergency conditions. Dam owners are responsible for complying with maintenance and repair requirements and developing Emergency Operations Plans (EOPs), which are required for high and significant hazard dams.

Dams which receive construction permits for repair and/or reconstruction are designed to pass at least the 100-year rainfall event with one foot of freeboard (a factor of safety against overtopping). The most critical and hazardous dams are required to meet a spillway design standard much higher than passing the runoff from a 100-year rainfall event. Although not all of the dams under CT DEEP jurisdiction have been shown to be able to withstand the

[51] https://www.fema.gov/media-library/assets/documents/28318?id=6292

100-year rainfall event, most of the dams meet this standard due to original design requirements or recent spillway upgrades. For the most part if smaller rainfall events (e.g., 10-year and 25-year events) occur more frequently there will be little impact on the ability of Connecticut dams to operate safely.

As more state-owned and privately-owned dams are repaired, the number of dams that will not meet the State minimum requirements for spillway design diminishes. However, the average age of all dams in Connecticut continues to increase and thus the State must remain vigilant in administering its dam safety regulations and related programs.

There is no season or geographic location that is more susceptible to dam failures than another in Connecticut. However, CT DEEP has started to monitor climate change predictions as they affect the numbers of and severity of heavy rain events in Connecticut. Since dam overtopping caused by excessive rainfall is the leading cause of dam failures in Connecticut, it is appropriate to relate future dam structure vulnerability directly with the potential for increased rainfall in Connecticut.

2.9.9 Climate Change Impacts

Connecticut's climate is changing. Throughout the northeastern United States, spring is arriving earlier and bringing more precipitation, heavy rainstorms are more frequent, and summers are hotter and drier. Severe storms increasingly cause floods that damage property and infrastructure. In the coming decades, the changing climate is likely to increase flooding, harm ecosystems, disrupt farming, and increase some risks to human health.[52]

Dams are designed partly based on assumptions about a river's flow behavior, expressed as hydrographs. Changes in weather patterns can have significant effects on the hydrograph used for the design of a dam. If the hygrograph changes, it is conceivable that the dam can lose some or all of its designed margin of safety, also known as freeboard. Loss of designed margin of safety may cause floodwaters more readily to overtop the dam or create unintended loads. Such situations could lead to a dam failure.

Climate change may increase the probability of dam failures, as indicated above. Changes in climate may lead to higher intensity rainfall events. As a result, the failure probability of low hazard, significant hazard, and under-designed high hazard dams may increase.

2.10 Dam Failure Vulnerability Assessment

Dams have been an important part of Connecticut's water infrastructure for centuries. In addition to the historic economic benefits provided by dams, they are used for flood control, water supply, power generation, recreation, and for mitigating the impact of increased runoff typically caused by land use changes associated with property development.

Today there are nearly 4,000 dams in the State of Connecticut (3,646[53]), which pose a potential hazard to downstream properties due to their location and size. These dams are

[52] https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/climate-change-ct.pdf
[53] 2018 CT DEEP

regulated by CT DEEP under Connecticut General Statutes which require permitting for construction, repair or alteration of dams, and that existing dams be registered and periodically inspected to assure that their continued operation and use does not constitute a hazard to life, health or property. A failure of most of Connecticut dams would not be catastrophic, but 686 of high and significant hazard dams pose a possible or even a probable threat to human life upon failure. Information on dams is not provided for general public distribution due to security concerns. Requests for this information may be submitted either to the CT DEMHS or CT DEEP

Two factors influence the severity of a dam failure: the amount of water impounded, and the density, type, and value of development and infrastructure downstream of the impoundment. The potential severity of a dam failure may be classified for each dam according to its "hazard potential," meaning the probable impact that would occur if the structure failed in terms of loss of human life and economic loss or environmental damage. Table 1-5 includes the number of infrastructure/facilities, building value and contents value by municipality. There are 3,327 mapped state-owned facilities. Based on a combination of the 2013 JESTIR database and Connecticut Open Data, the estimated total value of state buildings is $5.6 billion, with over $866 million in content value; the building and contents values have not been estimated for all state-owned building. The State's total building and contents value only includes those buildings where value information was available and is intent for use in this plan and should not be used for other applications. The state contains 1,940 identified critical facilities in the categories of correctional institutions, EMS facilities, fire stations, gas stations with generator, health departments, law enforcement facilities, municipal solid waste, nuclear power plants, and storage tank farms. 1,846 of these critical facilities were able to be geospatially mapped for analysis.

Appendix 2 includes the infrastructure and facilities datasets, as well as the loss estimates by municipality for facilities located within the known hazard geographic extents. For the purposes of this 2019 Plan update, all State buildings and local assets located in the dam failure inundation areas will be exposed to a dam failure event. Due to the sensitive nature of the dam/levee failure inundation zones, not all inundation zones were available for use to estimate potential losses to state facilities. As the State of Connecticut continues to become more urbanized, the State facilities will need to be developed in locations that will serve the growing population. For this 2019 Plan, 199 combined dam failure inundation areas were used to define the extent of the dam failure hazard area. Dam failure inundation areas were obtained from Milone & MacBroom (2018). This data provides information which may be used for planning purposes but does not reflect the comprehensive risk posed by dam failure as the data set continues to be under development. While many inundation areas may be coincident with the available data used in the 2013 State HMP, certain inundation areas may differ or be absent from this dataset and result in dissimilar totals for at-risk assets.

2.10.1 Assessment of State Vulnerability and Potential Losses

All State facilities in a dam/levee failure inundation zones may be vulnerable to damage. Buildings and properties located closest to the dam inundation zone have the greatest potential to experience the largest, most destructive surge of water in the event of a failure. All critical facilities and transportation infrastructures in the dam failure inundation zone

may be vulnerable to damage. Flood waters may potentially cut off evacuation routes, limit emergency access, and create isolation issues. Utilities such as overhead power, cable, and phone lines in the inundation zone may also be vulnerable. Loss of these utilities could create additional isolation issues for State facilities and populations residing in inundation zones.

Table 2-23 provides a breakdown of the regulated dams in Connecticut by hazard potential. Of the 3,646 dams, 237 are classified as having high hazard potential (major damage and probable loss of life) and 449 are classified as having a significant hazard potential (minor damage and possible loss of life). The remaining dams are not considered to pose a threat to life and safety following a failure, and only minimal to moderate damages or economic loss.

Table 2-23. State-regulated dams in Connecticut, by hazard potential.

Hazard Classification	Number of Dams	Percentage
C – High Hazard	237	7%
B – Significant Hazard	449	12%
BB – Moderate Hazard	481	13%
A – Low Hazard	1,650	45%
AA – Negligible Hazard	27	1%
Unclassified	802	22%
Total Regulated Dams	3,646	100%

Table 2-24 and Table 2-25 provide a breakdown of the numbers and values of state-owned buildings intersecting mapped dam failure inundation areas of high and significant classified hazard dams by county. A total of 94 state-owned buildings (2.80% of the total number of state-owned buildings in the state) are located within a known potential dam failure hazard area; 56 of these are in Fairfield County. It is important to note however that dam failure inundation mapping is for the 199 areas included in the dataset and does not represent all the 3,646 dams in the state.

Table 2-24. Number of state-owned buildings within mapped dam inundation areas.

County	Total State-Owned Buildings	# Buildings High Hazard Dam Inundation	# Buildings Significant Hazard Dam Inundation	Total Buildings At Risk	Total Percent At Risk
Fairfield	205	54	2	56	27.3%
Hartford	867	1	4	5	0.6%
Litchfield	97	17	0	17	17.5%
Middlesex	289	2	0	2	0.7%
New Haven	561	14	0	14	2.5%
New London	489	0	0	0	0.0%
Tolland	628	0	0	0	0.0%
Windham	191	0	0	0	0.0%
Total	3,327	88	6	94	2.8%

Table 2-25. Value of state-owned buildings within mapped dam inundation areas.

County	Total Value of State-Owned Buildings	Value in High Hazard Dam Inundation	Value in Significant Hazard Dam Inundation	Total Value At Risk	Total Percent At Risk
Fairfield	$328,049,014	$191,924,476	$193,629	$192,118,105	58.6%
Hartford	$2,482,445,429	$0	$1,159,160	$1,159,160	0.0%
Litchfield	$55,774,193	$18,838,322	$0	$18,838,322	33.8%
Middlesex	$411,474,322	$4,124,511	$0	$4,124,511	1.0%
New Haven	$824,597,613	$77,871,747	$0	$77,871,747	9.4%
New London	$98,537,626	$0	$0	$0	0.0%
Tolland	$2,016,260,747	$0	$0	$0	0.0%
Windham	$253,657,976	$0	$0	$0	0.0%
Total	$6,470,796,920	$292,759,056	$1,352,789	$294,111,845	4.5%

Table 2-26 provides a breakdown of the numbers of critical facilities intersecting mapped dam failure inundation areas of high and significant hazard dams by county. A total of 139 critical facilities (7.5% of the total number of critical facilities in the state) are located within a known potential dam failure hazard area.

Table 2-26. Number of critical facilities within mapped dam inundation areas.

County/Facility Types	All Critical Facilities	High Hazard Dam Inundation		Significant Hazard Dam Inundation		Total # At Risk	Total % At Risk
		# Critical Facilities	% Critical Facilities	# Critical Facilities	% Critical Facilities		
Fairfield							
Correctional Institutions	4	1	25.0%	0	0.0%	1	25.0%
EMS	120	9	7.5%	2	1.7%	11	9.2%
Fire Stations	115	8	7.0%	2	1.7%	10	8.7%
Gas Station	22	0	0.0%	0	0.0%	0	0.0%
Health Department	25	3	12.0%	0	0.0%	3	12.0%
Law Enforcement	35	3	8.6%	0	0.0%	3	8.6%
Municipal Solid Waste	43	5	11.6%	0	0.0%	5	11.6%
Nuclear Power Plant	0	0	0.0%	0	0.0%	0	0.0%
Storage Tank Farm	7	1	14.3%	0	0.0%	1	14.3%
Fairfield Total	371	30	8.1%	4	1.1%	34	9.2%
Hartford							
Correctional Institutions	6	0	0.0%	0	0.0%	0	0.0%
EMS	80	3	3.8%	2	2.5%	5	6.3%
Fire Stations	141	5	3.5%	1	0.7%	6	4.3%
Gas Station	10	0	0.0%	0	0.0%	0	0.0%
Health Department	26	1	3.8%	0	0.0%	1	3.8%
Law Enforcement	44	1	2.3%	2	4.5%	3	6.8%
Municipal Solid Waste	62	6	9.7%	6	9.7%	12	19.4%
Nuclear Power Plant	0	0	0.0%	0	0.0%	0	0.0%
Storage Tank Farm	8	0	0.0%	0	0.0%	0	0.0%
Hartford Total	377	16	4.2%	11	2.9%	27	7.2%
Litchfield							
Correctional Institutions	0	0	0.0%	0	0.0%	0	0.0%
EMS	34	6	17.6%	0	0.0%	6	17.6%
Fire Stations	53	6	11.3%	2	3.8%	8	15.1%
Gas Station	8	1	12.5%	0	0.0%	1	12.5%
Health Department	7	2	28.6%	0	0.0%	2	28.6%
Law Enforcement	25	3	12.0%	2	8.0%	5	20.0%
Municipal Solid Waste	29	3	10.3%	0	0.0%	3	10.3%
Nuclear Power Plant	0	0	0.0%	0	0.0%	0	0.0%
Storage Tank Farm	0	0	0.0%	0	0.0%	0	0.0%
Litchfield Total	156	21	13.5%	4	2.6%	25	16.0%
Middlesex							
Correctional Institutions	1	0	0.0%	0	0.0%	0	0.0%
EMS	31	0	0.0%	0	0.0%	0	0.0%

County/Facility Types	All Critical Facilities	High Hazard Dam Inundation		Significant Hazard Dam Inundation		Total # At Risk	Total % At Risk
		# Critical Facilities	% Critical Facilities	# Critical Facilities	% Critical Facilities		
Fire Stations	36	0	0.0%	0	0.0%	0	0.0%
Gas Station	8	0	0.0%	0	0.0%	0	0.0%
Health Department	9	0	0.0%	0	0.0%	0	0.0%
Law Enforcement	17	0	0.0%	0	0.0%	0	0.0%
Municipal Solid Waste	21	0	0.0%	0	0.0%	0	0.0%
Nuclear Power Plant	0	0	0.0%	0	0.0%	0	0.0%
Storage Tank Farm	3	0	0.0%	0	0.0%	0	0.0%
Middlesex Total	126	0	0.0%	0	0.0%	0	0.0%
New Haven							
Correctional Institutions	5	0	0.0%	0	0.0%	0	0.0%
EMS	76	10	13.2%	0	0.0%	10	13.2%
Fire Stations	115	10	8.7%	0	0.0%	10	8.7%
Gas Station	23	5	21.7%	0	0.0%	5	21.7%
Health Department	26	1	3.8%	0	0.0%	1	3.8%
Law Enforcement	42	6	14.3%	0	0.0%	6	14.3%
Municipal Solid Waste	45	9	20.0%	0	0.0%	9	20.0%
Nuclear Power Plant	0	0	0.0%	0	0.0%	0	0.0%
Storage Tank Farm	10	2	20.0%	0	0.0%	2	20.0%
New Haven Total	342	43	12.6%	0	0.0%	43	12.6%
New London							
Correctional Institutions	1	0	0.0%	0	0.0%	0	0.0%
EMS	77	1	1.3%	0	0.0%	1	1.3%
Fire Stations	68	1	1.5%	0	0.0%	1	1.5%
Gas Station	7	0	0.0%	0	0.0%	0	0.0%
Health Department	14	0	0.0%	0	0.0%	0	0.0%
Law Enforcement	33	1	3.0%	0	0.0%	1	3.0%
Municipal Solid Waste	39	0	0.0%	0	0.0%	0	0.0%
Nuclear Power Plant	1	0	0.0%	0	0.0%	0	0.0%
Storage Tank Farm	2	0	0.0%	0	0.0%	0	0.0%
New London Total	242	3	1.2%	0	0.0%	3	1.2%
Tolland							
Correctional Institutions	3	0	0.0%	0	0.0%	0	0.0%
EMS	35	1	2.9%	0	0.0%	1	2.9%
Fire Stations	37	3	8.1%	0	0.0%	3	8.1%
Gas Station	2	0	0.0%	0	0.0%	0	0.0%
Health Department	4	0	0.0%	0	0.0%	0	0.0%

County/Facility Types	All Critical Facilities	High Hazard Dam Inundation		Significant Hazard Dam Inundation		Total # At Risk	Total % At Risk
		# Critical Facilities	% Critical Facilities	# Critical Facilities	% Critical Facilities		
Law Enforcement	11	1	9.1%	0	0.0%	1	9.1%
Municipal Solid Waste	22	1	4.5%	0	0.0%	1	4.5%
Nuclear Power Plant	0	0	0.0%	0	0.0%	0	0.0%
Storage Tank Farm	0	0	0.0%	0	0.0%	0	0.0%
Tolland Total	114	6	5.3%	0	0.0%	6	5.3%
Windham							
Correctional Institutions	1	0	0.0%	0	0.0%	0	0.0%
EMS	43	0	0.0%	0	0.0%	0	0.0%
Fire Stations	40	0	0.0%	0	0.0%	0	0.0%
Gas Station	2	0	0.0%	0	0.0%	0	0.0%
Health Department	3	0	0.0%	0	0.0%	0	0.0%
Law Enforcement	12	1	8.3%	0	0.0%	1	8.3%
Municipal Solid Waste	17	0	0.0%	0	0.0%	0	0.0%
Nuclear Power Plant	0	0	0.0%	0	0.0%	0	0.0%
Storage Tank Farm	0	0	0.0%	0	0.0%	0	0.0%
Windham Total	118	1	0.8%	0	0.0%	1	0.8%
Statewide Total	1,846	120	6.5%	19	1.0%	139	7.5%

2.10.2 Assessment of Local Vulnerability and Potential Losses

The potential for loss of life is affected by the capacity and number of evacuation routes available to populations living in areas of potential inundation. Vulnerable populations are all populations downstream from dam failures that are incapable of escaping the area within the needed timeframe. The vulnerable population includes elderly and young who may be unable to evacuate from the inundation zone. Economically disadvantaged populations are more vulnerable because they are likely to evaluate their risk and make decisions to evacuate based on the cost to their family. Populations over 65 are highly vulnerable because they are often more medically fragile, requiring assistance that may not be available during a flood event.

All populations, buildings, infrastructure, and natural resources located in a dam failure inundation zone may be considered exposed and vulnerable. The environment could be exposed to a number of risks in the event of dam failure. Inundation can introduce foreign elements into local waterways, which can damage downstream habitat harming many animal and aquatic species. In addition, damage to buildings can impact a community's economy and tax base. Buildings and property located closest to the inundation zone have the greatest potential to experience the largest, most destructive surge of water. Because of the sensitive nature of the dam failure inundation zones, mapped inundation zones were not available to use to estimate potential losses.

Connecticut's population according to the 2010 US Census is 3,574,097. Table 2-27 provides a breakdown by county of the population within mapped dam failure inundation areas. This analysis was conducted by a portion of the census block group intersected the hazard area, only that same portion of the population is counted. For example, if 20% of the census block group intersects with a dam inundation area, only 20% of the population number for that census block group is counted). This results in estimated values. While there is potential for error with this methodology, it is considered a more refined approach than assuming 100% of the population is contained within the 20% of the census block group that intersects the hazard area. The total population at risk is estimated at 169,419, which is 4.7% of the state's population. It is important to note that dam failure inundation mapping covers 199 areas included in the dataset and does not fully represent the state's 3,646 dams.

Table 2-27: Population within mapped dam inundation areas.

County	Total Population (2010)	High Hazard Dam Inundation		Significant Hazard Dam Inundation		Total Population At Risk	Total % At Risk
		Population at Risk	% Population at Risk	Population at Risk	% Population at Risk		
Fairfield	916,829	65,567	7.2%	1,638	0.2%	67,205	7.3%
Hartford	894,014	25,080	2.8%	7,305	0.8%	32,385	3.6%
Litchfield	189,927	12,603	6.6%	1,125	0.6%	13,728	7.2%
Middlesex	165,676	2,559	1.5%	0	0.0%	2,559	1.5%
New Haven	862,477	43,195	5.0%	1,015	0.1%	44,210	5.1%
New London	274,055	2,523	0.9%	1,559	0.6%	4,081	1.5%
Tolland	152,691	3,115	2.0%	397	0.3%	3,513	2.3%
Windham	118,428	1,736	1.5%	1	<1%	1,737	1.5%
Total	3,574,097	156,378	4.4%	13,041	0.4%	169,419	4.7%

2.10.3 Changes in Development

An understanding of population and development trends can assist in planning for future development and ensuring that appropriate mitigation, planning, and preparedness measures are in place. The State considered the following factors to examine previous and potential conditions that may affect hazard vulnerability:

- Potential or projected development
- Projected changes in population
- Other identified conditions as relevant and appropriate

Any new development and increases in population located within the identified dam failure inundation areas will be vulnerable to the impacts from a dam failure event. As discussed in Section 1.2.4 (Land Use and Development), Fairfield County and Hartford County continue to experience the greatest development rates. As of 2016, approximately 65.7% of the building permits statewide were in Fairfield and Hartford Counties; both of these

counties accounted for nearly half of the housing units in the State. If recent trends in development continue, dam failure vulnerability in these counties will continue to increase, especially in Fairfield County, which currently has the greatest risk to dam failure inundation exposure in the State. Statewide, there is an estimated 2.2% change in population expected between 2020 and 2040; the increases in population will increase the State population's vulnerability to dam failure events.

2.10.4 Hazard Ranking

Quantitative risk assessment has been completed for dam failure using the methodology described in the Hazard Analysis and Ranking methodology Section 2.6 of this chapter. Scores for each jurisdiction were calculated based on population, building permits, geographic extent, average score from local plan rankings, average hazard concern, and measures of historical impact including injuries and deaths, property damage, and the number of reported events. The number of impacted critical facilities was also incorporated, and ranked based on the number of facilities impacted in relation to the number of total critical facilities in Connecticut. As shown in Table 2-28, the composite ranking has Fairfield County as medium risk, Hartford and New Haven as medium-low risk, and all other counties as low risk. Higher risk scores were primarily driven by large populations, numbers of building permits, and geographic extent.

Table 2-28: Hazard Ranking by County for Dam Failure

County	Hazard Concern Rank	Local Plans Hazard Rank	Geographic Extent Rank	Population Density Rank	Building Permits Rank	Facility Intersect Rank	Ann. Events Rank	Ann. Losses Rank	Injury & Death Rank	Composite Ranks
Fairfield	Low	Medium-High	High	High	High	Low	Low	Low	Low	**Medium**
Hartford	Low	Medium-High	Medium-High	High	High	Low	Low	Low	Low	**Medium-Low**
Litchfield	Low	Medium-High	Medium-High	Low	Low	Low	Low	Low	Low	**Low**
Middlesex	Low	Medium-High	Medium	Medium-Low	Medium-Low	Low	Low	Low	Low	**Low**
New Haven	Low	Medium-High	High	High	Medium	Low	Low	Low	Low	**Medium-Low**
New London	Low	Medium-High	Medium	Medium-Low	Medium-Low	Low	Low	Low	Low	**Low**
Tolland	Low	Medium-High	Medium-Low	Medium-Low	Medium-Low	Low	Low	Low	Low	**Low**
Windham	Low	Medium-High	Medium-Low	Medium-Low	Low	Low	Low	Low	Low	**Low**

2.11 Winter Weather Hazard Profile

2019 Plan Update Changes

- Previous Occurrences of winter weather
- FEMA disaster declarations

- Extent, Severity, and Primary and Secondary Impacts of Winter Weather
- Climate change impacts
- The definitions of Winter Storm and Blizzard were updated with recent information
- Geospatial analysis of Winter Weather was updated
- Analysis of State and Critical Facilities intersected with average annual total snow-depth

2.11.1 Hazard Description

Winter weather includes snow, sleet, freezing rain, and cold temperatures. Three elements are needed to create any type of winter precipitation:

- Cold Air – below freezing temperatures in the clouds and near the ground;
- Lift – something to raise the moist air to form the clouds and cause precipitation; and
- Moisture – needed to form clouds and precipitation.

According to the Northeast States Emergency Consortium (NESEC), winter weather can occur from late September through late April in Connecticut. The most severe storm and weather conditions usually occur from December through March. Severe winter weather events may include ice storms, Nor'easters with coastal flooding, blizzards, and large accumulation snow storms.

- **Blizzard** - Includes winter storm conditions of sustained winds or frequent gusts of 35 mph or more that cause major blowing and drifting of snow, reducing visibility to less than one-quarter mile for three or more hours. Extremely cold temperatures and low visibility, or white-out conditions are often associated with dangerous blizzard conditions.
- **Cold/Wind Chill** - Period of low temperatures or wind chill temperatures reaching or exceeding locally/regionally defined advisory (typical value is -180F or colder) conditions.
- **Extreme Cold/Wind Chill** - A period of extremely low temperatures or wind chill temperatures reaching or exceeding locally/regionally defined warning criteria (typical value around -350F or colder).**Frost/Freeze** - A surface air temperature of 32 degrees Fahrenheit (F) or lower, or the formation of ice crystals on the ground or other surfaces, for a period of time long enough to cause human or economic impact, during the locally defined growing season.
- **Heavy Snow**- Snow accumulation meeting or exceeding locally/regionally defined 12 and/or 24 hour warning criteria. This could mean values such as 4, 6, or 8 inches or more in 12 hours or less; or 6, 8, or 10 inches in 24 hours or less.
- **Ice Storm** - Ice accretion meeting or exceeding locally/regionally defined warning criteria (typical value is 1/4 or 1/2 inch or more).
- **Winter Storm** - A winter weather event that has more than one significant hazard (i.e., heavy snow and blowing snow; snow and ice; snow and sleet; sleet and ice; or snow, sleet and ice) and meets or exceeds locally/regionally defined 12 and/or 24 hour warning criteria for at least one of the precipitation elements.
    - A winter storm warning is issued by the National Weather Service (NWS) in which there is more than one of the following: snow, sleet, and ice (freezing

rain), and one of the warning criteria is met. The warning criteria for snow is 6 inches expected in a 12 hour period, or 8 inches expected in a 24 hour period. The warning criteria for ice is accumulations meeting or exceeding 1/2 inch. A winter storm warning may also be issued for heavy snow combined with strong winds of 25-34 mph that will cause blowing and drifting of the snow. A warning may still be warranted if the event is expected to exceed advisory criteria, but fall just short of warning criteria and will significantly impact mass transit and/or utilities.54

- **Winter Weather** - A winter precipitation event that causes a death, injury, or a significant impact to commerce or transportation, but does not meet locally/regionally defined warning criteria. A winter weather event could result from one or more winter precipitation types (snow, or blowing/drifting snow, or freezing rain/drizzle). The winter weather event can also be used to document out-of-season and other unusual or rare occurrences of snow, or blowing/drifting snow, or freezing rain/drizzle.

2.11.2 Location

Winter weather affects the entire state because of its New England location. Each county has experienced disaster winter storm disaster declarations during e 2011 through 2015 The northwestern upland areas' high elevations result in heavier snow accumulations than the coastal regions, causing more severe storm impacts, but the entire state has experienced January and February blizzards during the past decade.

2.11.3 Extent

The Northeast Snowfall Impact Scale (NESIS), shown in Figure 2-11 is similar to the Enhanced Fujita Scale (for tornadoes) and the Saffir-Simpson Scale (for hurricanes) because it measures the severity of a winter storm based on an algorithm.,

NESIS can indicate a storm's societal impacts. It was developed because of the national impact of northeast snowstorms due to transportation and economic networks. NESIS scores are based on algorithms that evaluate the extent of the storm, snowfall total, and population in the impacted area. Figure 2-11 illustrates how NESIS values are calculated within a geographic information system (GIS). The aerial distribution of snowfall and population information are combined in an equation that calculates a NESIS score which varies from around one for smaller storms to greater than 10 for extreme storms.

Approximately 59 of the most notable winter storms that impacted the Northeast United States have been analyzed and categorized using NESIS; many impacted Connecticut.

[54] https://www.weather.gov/okx/wwa_definitions#winter2

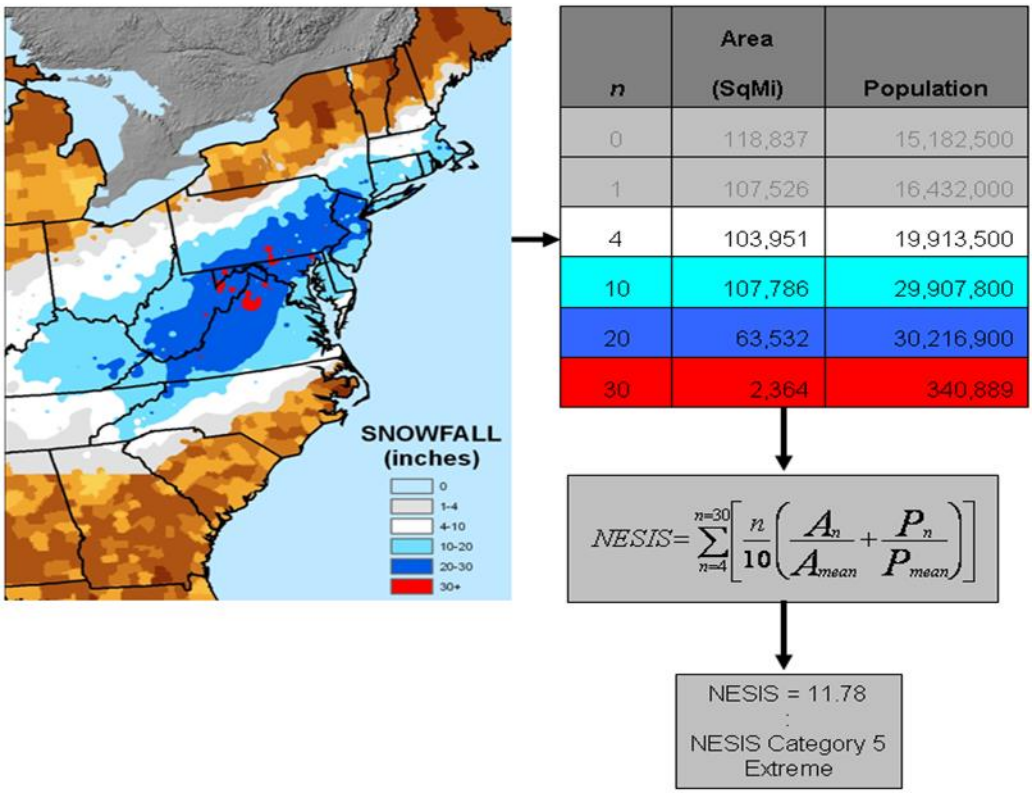

Figure 2-11: Algorithm to Determine NESIS Category of Severity and Example of Results

The Regional Snowfall Index (RSI) is an evolution of NESIS, operated through NOAA's National Center for Environmental Information and tracks. This index ranks significant snowstorms that impact the eastern two-thirds of the United States. The RSI ranks snowstorm impacts on a scale from 1-5, as does NESIS, but while NESIS is thought to be a quasi-national index, the RSI is a regional index.[55]

[55] https://www.ncdc.noaa.gov/snow-and-ice/rsi/

Table 2-29 shows the RSI Index scale descriptions and definitions. The index differs from other meteorological indices because it uses population information in addition to meteorological measurements. The largest NESIS values result from storms that produce heavy snowfall over large areas that include major metropolitan centers.

Table 2-29: Regional Snowfall Index (RSI)

Category	NESIS Range	Description	Definition
1	1 – 2.499	Notable	These storms are notable for their large areas of 4-inch accumulations and small areas of 10-inch snowfall.
2	2.5 – 3.99	Significant	Includes storms that produce significant areas of greater than 10-inch snows while some include small areas of 20-inch snowfalls. A few cases may even include relatively small areas of very heavy snowfall accumulations (greater than 30 inches).
3	4 – 5.99	Major	This category encompasses the typical major Northeast snowstorm, with large areas of 10-inch snows (generally between 50 and 150 × 103 mi.2— roughly one to three times the size of New York State with significant areas of 20-inch accumulations
4	6 – 9.99	Crippling	These storms consist of some of the most widespread, heavy snows of the sample and can be best described as crippling to the northeast U.S, with the impact to transportation and the economy felt throughout the United States. These storms encompass huge areas of 10-inch snowfalls, and each case is marked by large areas of 20- inch and greater snowfall accumulations.
5	10+	Extreme	The storms represent those with the most extreme snowfall distributions, blanketing large areas and populations with snowfalls greater than 10, 20, and 30 inches. These are the only storms in which the 10-inch accumulations exceed 200 × 103 mi2 and affect more than 60 million people.

The RSI differs from other indices because it includes population. RSI is based on the spatial extent of the storm, the amount of snowfall, and the juxtaposition of these elements with population. Including population information ties the index to societal impacts. Currently, the index uses population based on the 2000 Census.[56]

The extent of winter weather in Connecticut depends on numerous factors but can be evaluated through the use of meteorological measurements and indices such as the RSI Index. The extent of winter weather, for historic events as well as future probability, is highlighted through the historical overview of winter storms and the extent areas of the state.

[56] https://www.ncdc.noaa.gov/snow-and-ice/rsi/

2.11.4 Primary and Secondary Impacts

Winter weather, including heavy snow, ice, sleet, and freezing rain can slow or halt commerce and daily life through transportation and utility infrastructure disruption. Snow load poses a threat to structures. Roads and bridges may also experience structural damage due to rapid temperature variation during winter weather, chemicals used to treat roads, and ice loads. Winter weather has the potential to disrupt traffic, close offices and schools, and impact productivity and revenue statewide. In addition, the large concentration of Connecticut commuters are greatly impacted if winter weather disrupts train service to New York City. Ice and heavy snow have the potential to disrupt power and utilities, downing powerlines and uprooting trees onto vital infrastructure and components of the electrical grid.

Adverse winter weather necessitates an increase in municipal and state workforces to clear roads and additional emergency management personnel to attend to the community.

2.11.5 Severity

From Nor'easters to blizzards, winter weather in Connecticut ranges in severity. During autumn, light winter weather gradually becomes more severe as the season progresses into winter. Blizzards are not uncommon during the winter months, blizzard occurrence during January or February during 2016-2018.

Winter weather has the capacity to immobilize a region, cut communities off from emergency management personnel, and make travel impossible. When winter weather is paired with freezing rain and ice storms, utilities including water, gas, and electric can be compromised. These issues put vulnerable communities and populations, such as the elderly at an increased risk.

2.11.6 Warning Time

Warning time for winter weather events is typically greater than 24 hours. Winter weather is observed, monitored, and tracked by the National Weather Service (NWS) a U.S. agency and is part of NOAA. The NWS tracks snowfall forecasts, ice accumulation, and winter storm threats and aids communities in planning, preparing, and mitigating against natural events such as winter weather. With 122 Weather Forecast Offices, 13 River Forecast Centers, nine National Centers, and other support offices, the NWS collects and analyzes more than 76 billion observations and releases about 1.5 million forecasts and 50,000 warnings each year.[57] The NWS issues warnings for winter weather events, with frequencies and length that vary by specific conditions.

2.11.7 Previous Occurrences and Losses

Connecticut's geographic location in the Northeastern United States leads to at least 14 winter weather annually. Events include heavy snow storms, blizzards, Nor'easters, and ice storms (especially in the northern portion of the state). NOAA's State Climate Extremes

[57] https://www.weather.gov/about/forecastsandservice

Committee (SCEC) tracks, records, and verifies climate records. The record 24 hour snowfall and snow depth for Connecticut are highlighted in the Table 2-30.

Table 2-30: Record Snowfall and Snow Depth in Connecticut[58]

Measure of Interest	Value	Date	Location	Station ID	Status
Greatest 24-Hour Snowfall	36 in.	February 8 - 9, 2013	ANSONIA 1 NE	060128	NSA
Snow Depth	55 in.	February 5, 1961	NORFOLK 2 SW	065445	E

The snowfall and snow depth data is recorded and monitored by NOAA National Centers for Environmental Information and or by the State Climate Extremes Committee and determined to be valid. The "Status" nomenclature indicates that daily snowfall record is updated from the extremes table last updated by the National Climatologic Data Center (NCDC) from 1998-2006. In addition this information has been reviewed by a State Climate Extremes Committee and additional information is available. The snow depth has not changed from the previous extremes table as updated by NCDC from 1998-2006.[59]

The NCEI Storm Events Database contains records of Blizzards, Cold/Wind Chill, Extreme Cold/Wind Chill, Frost/Freeze, Heavy Snow, Ice Storms, Winter Storms, and Winter Weather. All storm types were included to create comprehensive representation of winter storm events. In previous plan updates, data was provided by the NCDC. In early 2015, NCDC merged with three other NOAA data centers to form NCEI, which can account for data variances between the 2013 and 2019 plan updates.

According to NCEI records, there have been 432 winter storm events statewide from January 1996 to December 31, 2017 resulting in $48,014,331 in estimated property damages (in adjusted dollars) (

[58] https://www.ncdc.noaa.gov/extremes/scec/records
[59] https://www.ncdc.noaa.gov/extremes/scec/records

Table 2-31). One death and 52 injuries occurred during this period. Information of deaths and injuries by county is not available since NCEI reports this information by regional zones.

Table 2-31: NCEI Total Winter Storm Events by County, 1996 – 2017

County	Number of Winter Storm Events	Property Damage (2017 dollars)
Fairfield	183	N/A
Hartford	110	$30,343,304
Litchfield	279	$2,070,060
Middlesex	126	N/A
New Haven	168	$4,021,960
New London	124	N/A
Tolland	102	$9,146,488
Windham	96	$2,432,519
Total	*	$48,014,331

**Note: event totals were not included because NCEI events may be counted more than once if one storm event affects multiple counties.*

The most significant blizzard to impact Connecticut occurred on March 11-14, 1888 (**Error! Reference source not found.**), known as the Great White Hurricane. Snowfall in this event was estimated at 45 to 50 inches. Significantly high snow drifts occurred shutting down major cities throughout the Northeast. Fifty inched was verified in one Connecticut town, where a snow drift was reported as 38 feet high. More than 400 died in the East Coast as a result of this blizzard. Total damages were estimated at more than $20 million (1888 dollars).

Figure 2-12: Pictures from the 1888 blizzard

Since the 1888 blizzard, Connecticut has experienced many major winter storms. Some claimed lives and produced damages in the millions of dollars. Notable recent storms include:

Ice Storm Felix – Connecticut's most severe ice storm occurred on December 18, 1973 causing two deaths and widespread extended power outages.

Blizzard of 1978 – Occurred on February 5, 1978; record snowfall amounts were recorded in several areas of Connecticut. Governor Grasso ordered all roads closed except for emergency travel, closing the State.

Nor'easter of 1992 – This storm, December 10 -13, 1992 killed three and destroyed 26 homes. Tides in Long Island Sound were stacked up by the continued strong east/northeast winds reaching 55 mph. The "stacking" of water resulted in the third highest tide (10.16 Feet NGVD measured at Bridgeport, Connecticut) ever recorded in Long Island Sound causing more than $4.3 million (1992 dollars) in damages to more than 6,000 homes. Inland areas received up to four feet of snow in northeastern Connecticut. The heavy wet snow snapped tree limbs and power lines cutting power to 50,000 homes.

Winter Storm Ginger – On January 8-9, 1996 27 inches of snow was recorded in Connecticut. The storm forced the state to shut down all roads for 24 hours except for emergency travel.

February 12-13, 2006 Nor'easter – The major disaster was declared due to damages in some areas from record snowfall (second largest snowfall recorded since 1906). Also known as the North American Blizzard of 2006. Governor M. Jodi Rell ordered closure of state highways to facilitate efficient snow removal.

Figure 2-13 shows the recorded snowfall amounts and the NESIS rating for The North American Blizzard of 2006.

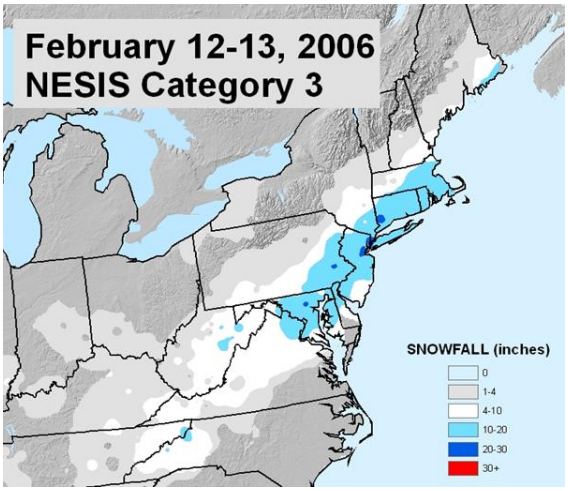

Figure 2-13 NESIS analysis rating of the February 12-13, 2006 winter storm

January 11-12, 2011 (Heavy Snow) – Very heavy snow developed across the region, producing snowfall rates of three to four inches per hour and snow totals ranging from 15 to 30 inches in southern Connecticut. The highest snowfall totals occurred in Fairfield and New Haven counties. At least four roof collapses were documented,

January 26-27, 2011 (Heavy Snowstorm) – A period of moderate to heavy snow moved through the region, producing two to five inches before a second round of heavy snow. This system produced three to four inches of snowfall hourly over during four - to six hours, raising accumulation to 12 to 20 inches causing at least 19 documented roof collapses.

February 1-2, 2011 "Groundhog Day Blizzard" – Three to five inches of snow and sleet fell across interior portions of Southern Connecticut during this two-day storm. With accumulation up to ten inches. Between 1/4 and 3/4 of an inch of ice accreted across Southern Connecticut, with the highest amounts across far Southwestern Connecticut and interior Northeastern Connecticut. This storm caused power outages, tree damage, the collapse or partial collapse of more than 100 roofs, resulting in $5.25 million in property damage across four counties (Hartford, New Haven, Tolland, and Windham) (source: NCDC).

October 29-30, 2011 "Winter Storm Alfred" – A historic and unprecedented early-season winter storm impacted the area with more than one foot of heavy wet snow falling on interior portions of Southern Connecticut, while coastal areas received mainly rainfall. In addition to heavy rain and snow, strong winds impacted the immediate coastline. Hundreds of thousands of people across southern Connecticut lost power during as heavy snow accumulated on trees that still had partial to full foliage during mid-autumn. This caused extensive wind throw of trees and limbs across the region, downing power lines, closing roads, and creating many dangerous situations of isolated residential areas without emergency vehicle access. Communications networks were also significantly disrupted (especially cellular networks). This was the first time a winter storm of this magnitude has occurred during October. A total of $247 million in insurance claims including personal, commercial, and auto claims were processed.

February 7-8, 2013 "Winter Storm Nemo" – By February 7, 2013, this powerful winter storm had prompted winter storm warnings and winter weather advisories from the Upper Midwest to New England. A blizzard warning was in effect for Connecticut; a state of emergency was declared February 8, 2018. The highest amount of snowfall nationally recorded was 40 inches in Hamden, CT. More than 800 National Guard soldiers and airmen were activated in Connecticut, Massachusetts, and New York to support road emergencies.

The Blizzard of January 26-27, 2015 "Winter Storm Juno" - A potent Alberta Clipper low moved from southwestern Canada on January 24 to the Plains states and Ohio Valley the next day. The low then redeveloped off the Mid Atlantic coast January 26, rapidly intensifying into a strong nor'easter, bringing heavy snow and strong winds to the State. The heaviest snow and strongest winds occurred across eastern Long Island and

southeastern Connecticut where up to 2 feet of snow fell, with blizzard conditions observed60

The Blizzard of January 22-24, 2016 "Winter Storm Anna" - Low pressure moving across the deep South January 21 - 22 intensified and moved off the Mid Atlantic coast January 23, bringing heavy snow and strong winds to southern Connecticut, and blizzard conditions to coastal locations. Bridgeport ASOS (KBDR) reported blizzard conditions for three hours.61

The Blizzard of February 9, 2017 - A cold front associated with low pressure across southeast Canada moved across the region February 8, followed by an upper level trough amplified across the Midwest. Energy within this trough acted on the cold front to develop a new low pressure across the Middle Atlantic which rapidly intensified moving to Long Island later that day.

The southeast coast of Long Island including the eastern Hamptons and Montauk were warmer at the onset of the storm. Montauk first experienced rain which turned to heavy snow as temperatures dropped throughout the day.

The day before the blizzard record warmth was observed across the Tri-State area. Record highs included 62 degrees at Central Park, NY. Temperatures dropped 30-40 degrees within 12-15 hours to the mid-upper 20s during the storm. 62 Blizzard conditions occurred across southern Connecticut with heavy snow and strong winds. The blizzard also created delays and cancellations to the region's transportation systems as well as numerous accidents on roadways.63

March 14th, 2017 Nor'Easter - Rapidly deepening low pressure tracked up the eastern seaboard on March, 14 created blizzard conditions in New Haven County. Heavy snow and sleet was observed across the southern Connecticut.

Trees fell onto power lines causing approximately 3,700 power outages due to strong winds and heavy snow. CT DOT reported 10.3 inches of snow and sleet in Milford and 8.8 inches of snow and sleet in New Haven. The Oxford-Waterbury AWOS showed blizzard conditions, with visibility less than one quarter mile in heavy snow and frequent wind gusts over 35 mph March 14.[64]

January 3-4, 2018 (Bomb Cyclone) - The blizzard developed Wednesday, January 3as a low pressure off the coast of Florida. The low underwent rapid intensification as it moved north-northeast along the eastern seaboard with the central pressure dropping from 1004 millibar to to 950 millibar which is a 54 millibar drop. The rapid intensification of the storm led to heavy snow and blizzard conditions across portions of the region, setting a daily snowfall record for January 4 at Bridgeport, CT (9.0")

[60] https://www.weather.gov/okx/Blizzard_01262715
[61] https://www.ncdc.noaa.gov/stormevents/eventdetails.jsp?id=617436
[62] https://www.weather.gov/okx/Blizzard_Feb92017
[63] https://www.ncdc.noaa.gov/stormevents/eventdetails.jsp?id=680087
[64] https://www.ncdc.noaa.gov/stormevents/eventdetails.jsp?id=687573

FEMA Disaster Declarations

Table 2-32 below outlines the most recent winter weather disaster declarations. A full list of disaster declarations prior to 2013 is included in Appendix 2.

Table 2-32 Major Federal Winter Weather Disaster Declarations

Declared Date	Declaration Number	Counties Affected	Description
April 8, 2015	FEMA-4213-DR	New Haven, New London, Tolland, Windham	Severe winter storm and snowstorm
March 21, 2013	FEMA-4106-DR	All eight counties in the State, including the Tribal lands of the Mashantucket Pequot and the Mohegan Tribal Nations	Severe Winter Storm and Snowstorm

2.11.8 Probability of Future Events

Connecticut will likely experience at least two or more major snow storms each winter. Based on NCEI historical events, it is reasonable to assume that Connecticut has a medium-high probability of future events. Table 2-33 summarizes the probability of future events by county (annualized events). Table 2-37 shows the ranking and risk parameters which includes the annualized events for each county.

Based on historical CTDOT records, an average of up to 14 events per winter season, major or otherwise, could require CTDOT hazardous road response. The 10-year average for winter storm events that prompted a response from CTDOT is 12 events annually, New Englanders expect this weather but climate change, increasing temperatures by mid to late century, could reduce the number of major snow storms. Recent climate change studies have projected winter seasons shortened by as much as two weeks for the state along with reduced duration of ground cover and snow pack. In addition, climate models have indicated that fewer but more intense precipitation events will occur during winter with more rainfall than snow.[65]

This change in winter precipitation could result in less frequent but more intense snow storms with heavier (denser) snow. NOAA's Snowfall/Meltwater Table[66] shows that as temperatures increase the amount and weight of snowfall decreases. For example, one inch of meltwater at 34°-28° F equals 10 inches of snow. This same amount of meltwater equals to 40 inches of snow at 9°-0° F.

In addition, the increasing change in the type of winter precipitation may also decrease the number of major snow storms experienced, but increase the number of ice storms occurring. This is an important issue that requires further study as a change in snow density or changeover to more freezing rain/ice could have a large impact on managing future winter

[65] Sources: U.S. Global Change Research Program, Global Climate Change Impacts in the United States, 2009; Northeast Climate Impacts Assessment Group, Confronting Climate Change in the U.S. Northeast, 2007; and U.S. Climate Change Science Program, Weather and Climate Extremes in a Changing Climate, 2008.
[66] NOAA website. The amounts listed in the table are general estimates and are noted to vary greatly between snowstorms, given the specific characteristics per storm event.

storms and the impact of such storms on the residents of Connecticut (including travel and utility services). Figure 2-14 shows average annual snowfall in inches for Connecticut.

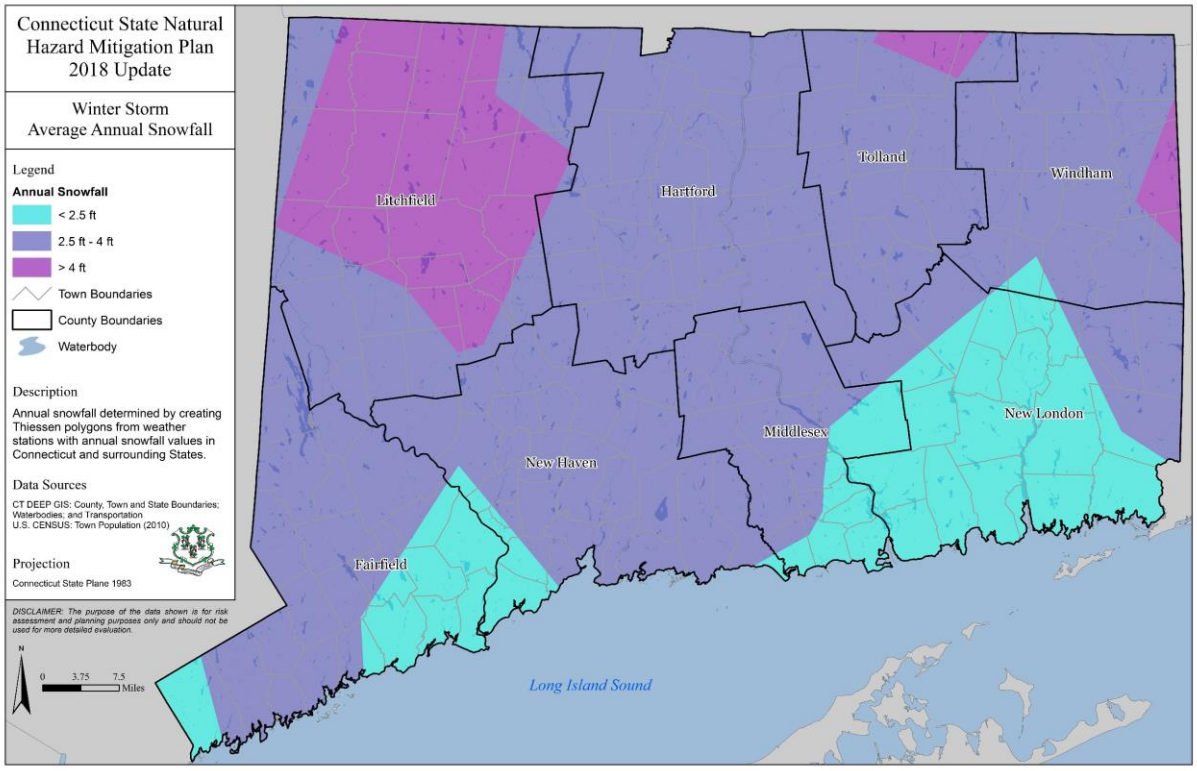

Figure 2-14: Winter Storm Average Annual Snowfall

2.11.9 Climate Change Impacts

Annual mean temperature in Connecticut has increased by about 3°F (1.7°C) since 1895, faster than rising global mean temperatures.[67] Due to rising temperatures, increased rain could mean more ice storms.[68] Climate change will have significant impacts on winter weather patterns and precipitation during the winter months. Connecticut continues to analyze possible scenarios of how climate variations will impact weather patterns, but as recent winter storm conditions have shown, winter weather has been, and will continue to be impactful to communities, infrastructure, and public safety.

2.12 Winter Weather Vulnerability Assessment

Winter weather is one of the most impactful hazards to the State and its 174 municipalities, tribes, and boroughs annually. Harsh winter storms ranging from ice storms and blizzard conditions to nor'easters battering coastal communities affect the entire State though snowfall and coastal winter varies geographically.

[67] https://www.geo.umass.edu/climate/stateClimateReports/CT_ClimateReport_CSRC.pdf
[68] https://www.geo.umass.edu/climate/stateClimateReports/CT_ClimateReport_CSRC.pdf

2.12.1 Assessment of State Vulnerability and Potential Losses

People living in the rural areas are vulnerable to potential power losses and property damages from major winter storms. In addition, Connecticut's elderly population is especially vulnerable to winter storm impacts (heat loss, power loss, safe access to grocery stores, pharmacies and medical care).

It is anticipated that severe transportation gridlock during winter storms will continue to occur. Severe traffic congestion from winter storms happened due to rapid onset of heavy snow over urban areas and icing of roadways as a result of lighter snow events that lead to freezing of water on roadways or freezing rain or ice storms. Traffic congestion and safe commuter travel can be mitigated by the use of staggered timed releases from work, pre-storm closing of schools, and later start times for businesses. Most Connecticut employers and school districts implement such practices. However, the costs associated with transportation disruptions and the loss of work and school time are projected to increase.

Table 2-33 shows annualized loss information for the state by jurisdiction, including the annualized number of events, and total annualized damages due to winter storm.

Table 2-33: NCEI Annualized Winter Weather Events and Property Damages

County	Annualized Events	Annualized Damages (2017 Dollars)
Fairfield	7.55	N/A
Hartford	4.68	$1,352,323.52
Litchfield	11.68	$92,629.71
Middlesex	5.18	N/A
New Haven	7.05	$179,972.10
New London	5	N/A
Tolland	4.41	$408,386.24
Windham	4.05	$105,940.23

Table 1-5 depicts infrastructure/facilities, building value and contents value by municipality. The estimated total value of Connecticut's 3,327 state buildings is $5.6 billion, with more than $866 million in contents value. Building and contents values have been estimated for the plan update and should not be used elsewhere. Appendix 2 includes the infrastructure and facilities datasets and loss estimates by municipality for facilities located within areas vulnerable to winter storms.

State Facilities Exposure

Table 2-34 and Table 2-35 shows the annual exposure of these assets to annual averaged total snow-depth. Eighty-one percent (2,710) are located in an area of the state with an average annual snow-depth of 2.5 feet or greater, thus $3.5 billion in estimated building

value is exposed to severe snow accumulation (62% of the total known value of all state-owned buildings in the state).

Table 2-34: State-owned Building Winter Weather Exposure

County	Total State-Owned Buildings	< 2.5FT Annual	2.5FT to 4FT Annual	> 4FT Annual	Total Buildings At Risk
Fairfield	205	0	205	0	205
Hartford	867	96	771	0	867
Litchfield	97	0	94	3	97
Middlesex	289	1	286	2	289
New Haven	561	134	421	6	561
New London	489	57	424	8	489
Tolland	628	283	303	42	628
Windham	191	46	134	11	191
Total	3,327	617	2,638	72	3,327

Table 2-35: Value of State-owned Buildings Exposed to Winter Weather

County	Total State-Owned Buildings	< 2.5FT Annual Building Value	2.5FT to 4FT Annual Building Value	> 4FT Annual Building Value	Total Building Value at Risk
Fairfield	205	N/A	$306,766,079	N/A	$306,766,079
Hartford	867	N/A	$1,748,115,127	N/A	$2,193,688,919
Litchfield	97	N/A	$49,393,806	N/A	$49,393,806
Middlesex	289	N/A	$333,187,573	N/A	$333,187,573
New Haven	561	$222,600,542	$506,081,106	$396,611	$729,078,259
New London	489	N/A	$88,717,364	$1,844,126	$90,561,490
Tolland	628	$1,339,246,606	$319,693,278	$12,817,601	$1,671,757,487
Windham	191	$105,309,715	$124,882,539	N/A	$230,192,255
Total	3,327	$2,112,730,656	$3,476,836,875	$15,058,340	$5,604,625,871

Critical Facilities Exposure

The state contains 1,940 identified critical facilities ranging from correctional institutions, EMS facilities, fire stations, gas stations with generators, health departments, law enforcement facilities, nuclear power plants, and fuel storage tank farms. 1,846 of the

critical facilities were intersected with the winter weather hazard overlays.[69] Table 2-36 provides a breakdown of the numbers of critical facilities exposed to areas of the state averaging annual snow-depth less than 2.5ft, 2.5 – 4ft, and greater than 4ft. Seventy-seven percent (1,415) are located in an area averaging 2.5 feet or greater annual snow-depth.

Table 2-36: Number of critical facilities exposed to winter storm hazards

County	< 2.5FT Annual Snow-depth				2.5FT to 4FT Annual Snow-depth								> 4FT Annual Snow-depth		Total Buildings At Risk
	EMS	Fire Station	Law Enforcement	Municipal Solid Waste	Correctional Institution	EMS	Fire Station	Gas Station with Generator	Health Department	Law Enforcement	Municipal Solid Waste	Storage Tank Farm	Fire Station	Municipal Solid Waste	
Fairfield	34	69	28	0	4	86	42	22	25	7	10	7	4	33	371
Hartford	12	31	31	1	6	68	108	10	26	13	51	8	2	10	377
Litchfield	9	20	2	0	0	25	33	8	7	23	27	0	0	2	156
Middlesex	1	11	2	0	1	30	21	8	9	15	18	3	4	3	126
New Haven	13	68	16	0	5	63	47	23	26	26	19	10	0	26	342
New London	17	36	11	0	1	60	32	7	14	22	26	2	0	13	242
Tolland	2	3	2	0	3	33	34	2	4	9	21	0	0	1	114
Windham	4	3	4	0	1	39	37	2	3	8	15	0	0	2	118
Statewide Total	12	31	31	1	6	68	108	10	26	13	51	8	2	10	1,846

2.12.2 Assessment of Local Vulnerability and Potential Losses

While winter weather deeply impacts Connecticut, vulnerability is experienced locally. Winter weather prohibits or delays school and business openings, hinders transportation, reduces local economic revenue, threatens at-risk populations including the elderly, young and poor, and effects critical facility operation. Runoff from plowed snow which contains sand, debris, salt, heavy metals and petroleum has the potential to affect local water sources, streams, rivers, and drinking water. While the State is responsible for clearing main highways and infrastructure, municipalities clear local roads and re-establish and community access.

[69] While there are a total 1,940 critical facilities, the WPCF's lacked spatial data in which to overlay with hazards and assess vulnerability. 1,846 critical facilities were intersected with Connecticut's hazards.

For more detail regarding the vulnerability of specific municipalities to winter weather, please refer Appendix 2.

2.12.3 Changes in Development

Connecticut's population growth has been minimal recently, with modest to low growth projected in the next few decades. This minimal growth has reduced the vulnerability to winter weather.

2.12.4 Hazard Ranking

Quantitative risk assessment was completed for winter weather using the methodology described in the Hazard Analysis and Ranking methodology Section 2.6 of this chapter. Scores for each jurisdiction were calculated based on population, building permits, geographic extent, average score from local plan rankings, average hazard concern, and measures of historical impact including injuries and deaths, property damage, and the number of reported events. The number of impacted critical facilities was also incorporated, and ranked based on the number of facilities impacted in relation to the number of total critical facilities in Connecticut. As shown in Table 2-37, the composite winter weather rank shows a "high" risk for Fairfield, Hartford, New Haven, and Tolland Counties; Litchfield and Windham Counties as medium-high risk; and Middlesex and New London Counties as medium risk.

Table 2-37: Hazard Ranking by County for Winter Weather

County	Hazard Concern Rank	Local Plans Hazard Rank	Geographic Extent Rank	Population Density Rank	Building Permits Rank	Facility Intersect Rank	Ann. Events Rank	Ann. Losses Rank	Injury & Death Rank	Composite Ranks
Fairfield	Medium-High	High	Medium-High	High	High	Medium	High	Low	High	**High**
Hartford	Medium-High	High	Medium-High	High	High	Medium	High	High	Low	**High**
Litchfield	Medium-High	High	High	Low	Low	Medium	High	Medium	Low	**Medium-High**
Middlesex	Medium-High	High	Medium	Medium-Low	Medium-Low	Medium	High	Low	Low	**Medium**
New Haven	Medium-High	High	Medium	High	Medium	Medium	High	Medium-High	Low	**High**
New London	Medium-High	High	Medium	Medium-Low	Medium-Low	Medium	High	Low	Low	**Medium**
Tolland	Medium-High	High	Medium-High	Medium-Low	Medium-Low	Medium	High	Medium-High	Low	**High**
Windham	Medium-High	High	Medium-High	Medium-Low	Low	Medium	High	Medium-High	Low	**Medium-High**

2.13 Flood-Related Hazard Profile

2019 Plan Update Changes

- Updated the hazard profile to add a discussion about Ice Jams (previously discussed in the 2010 plan exclude from 2014 plan update).
- Updated the National Flood Insurance Program (NFIP) section to include a discussion about Connecticut Community Rating System communities.
- Updated NFIP section to include a discussion about Coastal Barrier Resource Areas.
- Updated the Previous Occurrences and Losses section to include recent storm events.
- Added a section that discusses Flood Impacts (Severity, Warning Time, and Secondary Impacts).
- Removed 2000 AAL Comparison.
- Ran both 100-year and multi-frequency flood scenarios for vulnerability analysis.
- Average Annualized Losses calculated for multi-frequency scenarios.

2.13.1 Hazard Description

This section provides general information on State flood hazards including riverine (inland) flooding, coastal flooding, shallow flooding, and ice jams. Flooding is one of the most common natural hazards in the United States. Other natural hazard events like hurricanes, coastal storms, severe rains, occurrence of ice jams and dam failures often result in flooding including. Flooding can cause extensive damage to property and risk of injury and loss of life. The following are five characteristics of a flood:

- **Hydrodynamic forces** -– Structural damage created by moving waters. There are three ways in which hydrodynamic forces can damage a structure's walls: by frontal impact to the walls (water striking the walls of a structure); drag effect (water running alongside of a structure's walls); and, eddies or negative pressure (water passing the downstream side of a structure).
- **Debris Impact** - includes damage by direct impact of any object that flood waters can pick up and move to another location.
- **Hydrostatic Forces** – the pressure, both downward and sideways which standing water exerts on a structure's floor and walls. Hydrostatic pressure can also cause damage to structures due to buoyancy and flotation which can occur in flood waters.
- **Soaking** – the warping, swelling and changes in a material's form and structure resulting from being submerged in flood waters.
- **Sediments and Contaminants** – the sand, sediments, chemicals, and biological contaminants (such as untreated sewage) that flood waters can move and leave behind after the flood waters subside.

Riverine Flooding

Riverine flooding occurs when streams, rivers, channels and other waterbodies receive more rain or snowmelt from their watershed than their capacity can handle within the normal

floodplain or when the waterbody becomes blocked by an ice jam or debris. Excess water overloads the channel and extends into or even beyond the natural floodplain.

Flash flooding can occur during a rapid rise of water throughout a watershed or in poorly drained urban areas composed mostly of impervious surfaces which cannot absorb precipitation. Flash flooding is typically a result of an unusually large amount of rain and/or high velocity of water flow (especially in hilly areas) within a very short period of time (e.g., intense rainfall, dam failure, ice jam).

Coastal Flooding

Coastal flooding can occur along the coastline of oceans, bays, inlets, large lakes, and coastal rivers. Coastal floods feature submersion of land adjacent to oceans and large water bodies as a result of overtopping of seawater above normal tidal action. Coastal flooding occurs from coastal storms that produce storm surges, extreme rainfall or inadequate capacity to drain inland waterbodies. Coastal flooding often exacerbated by severe dune erosion. These conditions are produced in Connecticut by hurricanes or tropical storms during the summer and fall, and Nor'easters and large coastal storms or extra-tropical storms during the autumn, winter, and spring.

Storm surge is an abnormal rise of water generated by a storm that exceeds predicted astronomical tide elevations. Storm surge is produced by water pushed towards the shore by winds associated with a storm. Storm surges may overrun barrier islands and push sea water into coastal rivers and inlets, blocking the downstream flow of inland runoff. Agricultural lands, forests, and wetlands along with developed areas may be inundated by fresh, brackish and salt water. Evacuation routes from coastal communities and barrier islands may be cut off quickly, stranding residents in flooded and inaccessible areas.

Waves are a unique and damaging characteristic of coastal flooding that are addressed in floodplain hazard assessment. FEMA's Flood Insurance Rate maps (FIRMs) delineate areas vulnerable to wave heights greater or equal to three feet as Zone V (including Zones VE, V1-30, and V), also known as the Coastal High Hazard Area. V Zones are an area within the Special Flood Hazard Area (SFHA) extending from offshore to the inland limit of the primary frontal dune along an open coast and any other portion of the SFHA subject to high-velocity wave action from storms or seismic sources (Figure 2-15).

Zone A or AE is the coastal portion of the SFHA that is subject to wave heights of less than three feet. The Limit of Moderate Wave Action divides Zone AE into two sections: a Coastal A-zone where wave heights are between 1.5 and three feet (Moderate Wave Action area) and a Zone AE where wave heights are less than 1.5 feet (Minimal Wave Action area) (FEMA 2011).

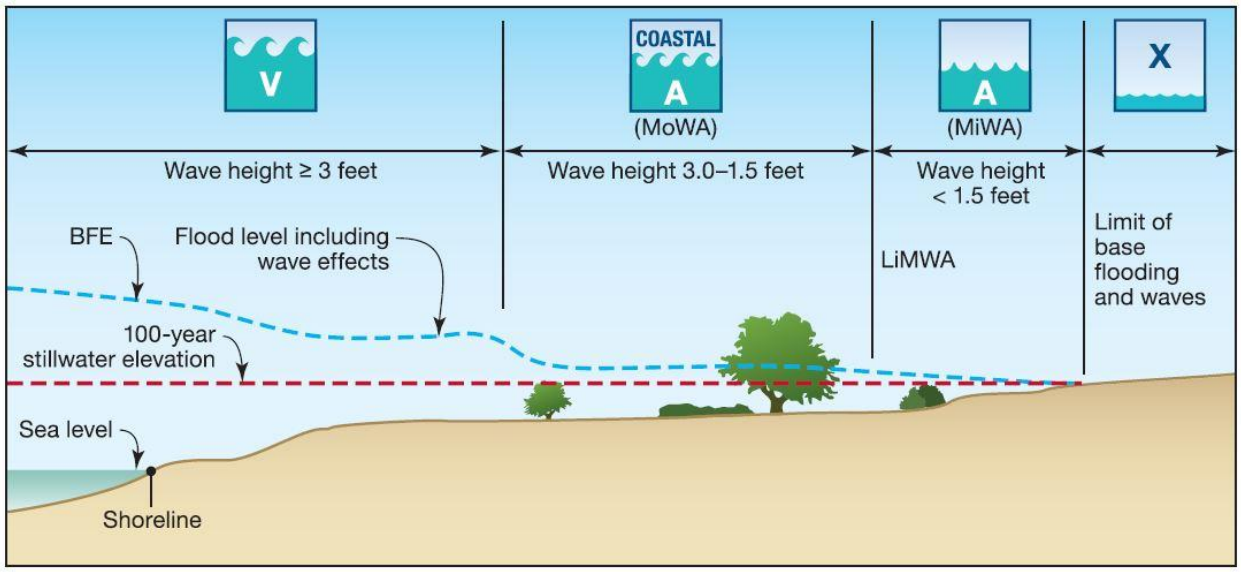

Figure 2-15: Transect schematic showing coastal flood zones

Shallow Flooding

Shallow flooding occurs in flat areas where the lack of a defined channel results in poor drainage. There are three types of shallow flooding:

- Sheet Flow – water spreads out over a large area at a uniform depth;
- Ponding – runoff collects in depressions and cannot drain out; and
- Urban Flooding – when a drainage system, consisting of manmade features, is overloaded by a larger amount of water than the system was designed to accommodate.

Ice Jams

An ice jam is an accumulation of ice in a river that restricts water flow causing backwater that floods low-lying areas upstream from the jam. Ice jams occur when early spring warming temperatures combined with heavy rain cause rapid snow melt. The combination of snow melt and heavy rains can cause frozen rivers to swell, breaking the ice layer on top of the river. The ice layer often breaks into large chunks which float downstream and become jammed at man-made and natural obstructions. (Northeast States Emergency Consortium and FEMA). Areas below the ice jam can be affected by flash flooding when the jam releases, sending water and ice downstream rapidly.

According to the Special Report 94-7 Ice Jam Data Collection, by the US Army Cold Regions Research and Engineering Laboratory (CRREL) (March 1994), ice jams can be grouped into three categories: freeze-up jams, breakup jams, or both. Each ice jam type different characteristics and associated mitigation and control.

The following description of the types of ice jams, and mitigation and control techniques is detailed in *Flooding: Causes and Possible Solutions, US Army Corps of Engineers, November 1994.*

Freeze-up jams are characterized by low air and water temperatures, fairly steady water and ice discharges, and a consolidated top layer. Freeze-up jams are composed primarily of frazil ice (often described as slush ice). The floating frazil may slow or stop due to a change in water slope from steep to mild because it reaches an obstruction to movement such as a sheet ice cover, or because some other hydraulic occurrence slows the movement of the frazil. Jams are formed when floating frazil ice stops moving downstream, forms an "arch" across the river channel, and begins to accumulate.

Breakup jams occur during periods of thaw, generally in late winter and early spring, and are composed primarily of fragmented ice formed by the breakup of an ice cover or freeze-up jam. The ice cover breakup is usually associated with a rapid increase in runoff and corresponding river discharge due to a significant rainfall event or snowmelt. In these cases, the increased river discharge causes the ice to rise and buckle or break apart. These broken pieces of ice are then moved downstream by the rising water. Late season breakup is often accelerated by sudden increases in air temperatures and solar radiation usually accompanying a rainfall/runoff event.

The broken, fragmented ice pieces move downstream until they encounter a strong intact downstream ice cover or other surface obstruction to flow (such as a dam or bridge), or other adverse hydraulic conditions such as a significant reduction in water surface slope, or a sudden rise in the river bed. Once they reach such a jam initiation point, the fragmented ice pieces stop moving, begin to accumulate, and form a jam. The ultimate size of the jam (i.e., its length and thickness) and the severity of the resulting flooding depend on the flow conditions, the available ice supply from upstream reaches of the river, and the strength and size of the ice pieces.

Midwinter thaw periods marked by flow increases may cause a minor breakup jam. The river flow subsides to normal winter level and the jammed ice drops with the water level as cold weather begins. The jam may become grounded as well as consolidated or frozen in place. During normal spring breakup, this location is likely to be the site of a severe jam. Combination jams involve both freeze-up and breakup jams.

2.13.2 Location

Flooding

Flooding is the most prevalent and frequent natural hazard that impacts Connecticut. The state features thousands of miles of rivers, brooks and streams along with lakes, and ponds. Flooding in Connecticut is a direct result of frequent weather events such as coastal storms, Nor'Easters, heavy rains, tropical storms, and hurricanes.

Ice Jams

In Connecticut, ice jams can occur along the many large rivers. Ice Jams are most likely to occur during the early spring months with the first winter thaws. Ice jams are exacerbated by river geometries, weather characteristics, and floodplain land-use practices such as bridge obstructions or dams. Many times if building infrastructure is not located within close proximity to the location of the jam, ice jams are not recorded if flooding or other damages did not occur.

2.13.3 Extent

Connecticut has more than 235,000 acres of FEMA delineated special flood hazard areas (SFHAs) and 88,689 acres of floodplain modeled through the FEMA Hazus model. The SFHA is a delineation of the extent (flood height and area flooded of a one-percent chance or "100-year flood" event which is a flood with a one percent probability of happening or being exceeded annually. Figure 2-16 shows the location of 100-year floodplains. The floodplain area for each jurisdiction has been used for the geographic extent factor for the flood hazard ranking. New Haven County has more than 59,200 acres of floodplain (93 square miles), followed by Hartford County (78 square miles) and Fairfield County (75 square miles). Within New Haven County, communities with greater than 7,000 acres of floodplain include Madison, Milford and Guilford. The Town of Stratford in Fairfield County has 6,256 acres of floodplain.

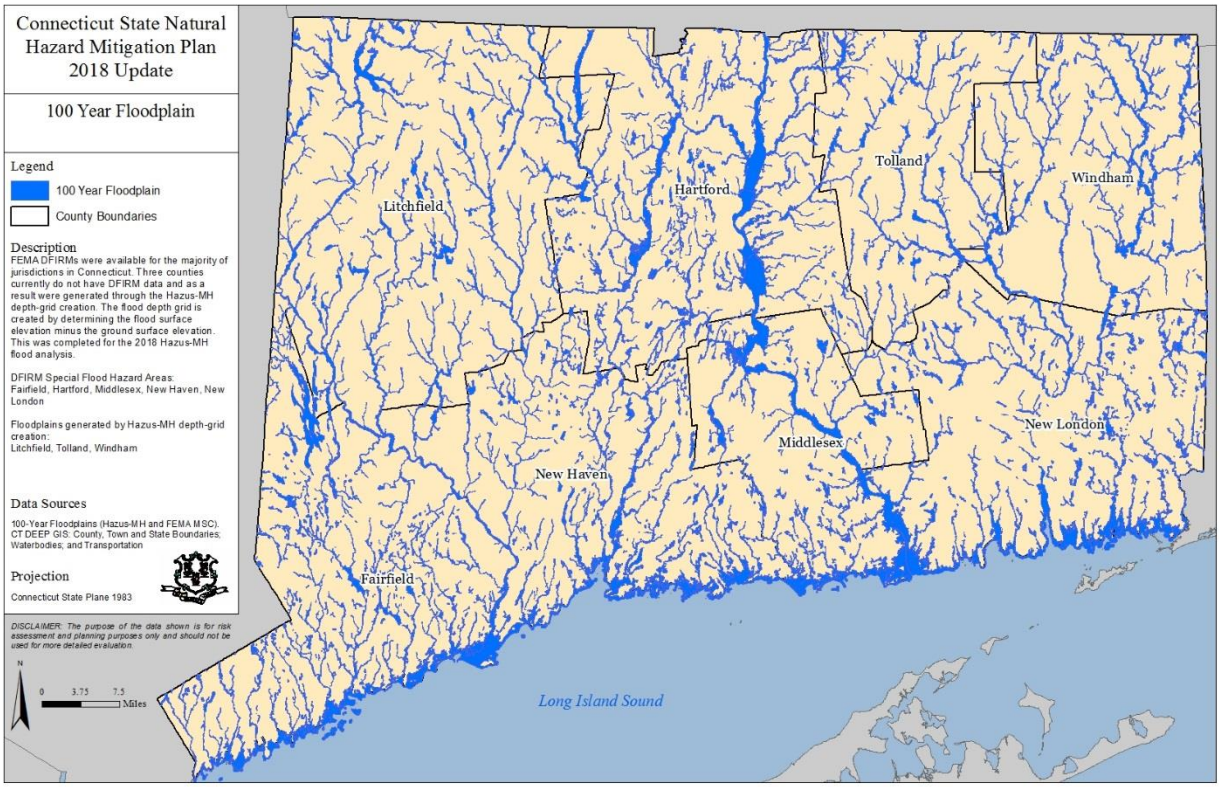

Figure 2-16: 100-year Floodplain

2.13.4 Primary and Secondary Impacts

Flooding

Primary Impacts:

- Transport of small and large objects at high velocity can damage structures in flooded areas or constricted areas of the waterbody.
- Erosion that undermines bridge structures, levees, and buildings causing structural failure and collapse.
- Landslides following intense flooding in areas with steep topography.
- Water damage to property, including primary and secondary residences, accessory structures, contents, businesses, government facilities and critical infrastructure.
- Deposit of suspended sediment resulting in thick layers of mud covering landscapes and interiors of flooded buildings.
- Loss of crops, livestock, pets, and wildlife.
- Injury and loss of human life due to vehicular accidents, drowning or impact from debris.

Secondary Impacts:

- Floodwaters often are contaminated with toxins, garbage, and debris that can impact the heath of exposed humans and animals.
- Disruption of utilities.
- Economic loss due to flood damage to buildings, contents, and agriculture.

People and property are extremely vulnerable to flooding. Homes and businesses may suffer damage and be susceptible to collapse due to heavy flooding. Floodwaters can carry chemicals, sewage, and toxins from roads, factories, and farms; therefore, any property affected by the flood may be contaminated with hazardous materials. Debris from vegetation and man-made structures can be hazardous following a flood. In addition, floods may threaten water supplies and quality, and cause utility interrupting and boil water mandates.

Ice Jams

Primary Impacts:

- Flooding/flash flooding to areas adjacent to rivers.
- Debris accumulation.
- Damage to structures such as bridges, decks, and buildings. ,
- Impacts to powerlines.
- Transportation disruption.

2.13.5 Severity

Flooding

The severity of a flood depends on water accumulation over time and the watershed's capacity absorb and manage flood waters. Infiltration rates and river, stream or channel capacity impact flood severity.

The severity of a flood can be measured based on the depth and probability of flooding. The 100-year flood zone delineates the regulatory boundary of the flooding that has a 1% annual probability of occurrence, also known as the special flood hazard area (SFHA) or base flood. Federal and state agencies, including FEMA's National Flood Insurance Program (NFIP), use the SFHA as a standard for floodplain management. Federally-backed and many private mortgage lenders require flood insurance for buildings in or near the SFHA. Structures located within an SFHA shown on an NFIP map have a 26% chance of suffering flood damage during the term of a 30-year mortgage.

The National Weather Service classifies river flooding as Minor, Moderate, or Major based on water height and impacts along the river that have been coordinated with the NWS and local officials. Minor riverine flooding means that low-lying areas adjacent to the stream or river, mainly rural areas, farmland and secondary roadways near the river flood. Moderate flooding means water levels rise high enough to impact homes and businesses near the river and some evacuations may be needed. Larger roads and highways may also be impacted. Major flooding means that extensive rural and/or urban flooding is expected. Towns may become isolated and major traffic routes may be flooded. Evacuation of homes and business may be required (National Oceanic and Atmospheric Administration).

Ice Jams

The severity of an ice jam is worsened when heavy snowfall and cold temperatures are followed by sudden periods of warm temperatures and heavy rain. The magnitude of an ice jam can depend on how much broken ice has accumulated in the river and if there are other manmade obstructions in a river that are blocking the passage of the ice.

2.13.6 Warning Time

Flooding

It is unusual for a flood to occur without warning due to the pattern of meteorological conditions needed to cause flooding. Coastal flooding due to a tropical cyclone may be predicted two to three days ahead of occurrence, whereas flash floods can develop within six hours of the immediate cause of flooding (heavy rainfall).

Ice Jams

Ice jams often happen with little warning time. The rate of water level rise during an ice jam varies from feet/minute to feet/hour. Rapid rise behind ice jams can lead to temporary

ponding and flooding along rivers. A sudden release of a jam can lead to downstream flash flooding especially when compounded by large pieces of ice in the wall of water.

In addition to causing flooding, ice jams can have economic and ecological impacts. Navigation can be delayed or suspended, hydropower operations can be ceased and vessels may sustain damage. Jams can cause riverbank erosion, impede migration of aquatic creatures and adversely impact wildlife habitats. Loss of life has also been attributed to flooding caused by ice and debris jams (National Oceanic and Atmospheric Administration).

Ice jam damages can affect homes, buildings, roads, bridges and the environment (e.g., through erosion, sedimentation, bank scour, tree scarring, etc.) According to the *Special Report 94-7 Ice Jam Data Collection*, by the US Army Cold Regions Research and Engineering Laboratory (CRREL) (March 1994), ice jams cause more than $100 million in damages annually in the United States.

2.13.7 Previous Occurrences and Losses

Flooding

Flooding is the most frequently occurring natural hazard that impacts Connecticut. The Cornell University Extreme Precipitation in New York and New England modeling project (in collaboration with the Northeast Regional Climate Center (NRCC) and the Natural Resources Conservation Service (NRCS)) shows increased flood frequency during the past 60-years.

According to FEMA's disaster declaration database, Connecticut had fourteen major disaster declarations that resulted in severe flooding since 1954. There have been no declarations of major disaster since the 2014 plan update. Eight of the most notable Connecticut flood disasters in the twentieth and beginning of the twenty-first centuries include:

- The Flood of 1936;
- The Flood of 1955 (discussed in subsection 2.7.2 of this chapter)
- The Flood of 1982;
- The Flood of October 2005;
- The Flood of April 2007;
- The Floods of March 2010;
- The Flood of 2011 (Tropical Storm Irene); and
- The Flood of 2012 (Super Storm Sandy).

Table 2-38 provides detailed information on all significant flood events in Connecticut from 1936 to 2017. The most recent major flood disaster events were Tropical Storm Irene in 2011 and Hurricane Sandy in 2012.

Table 2-38: Significant Flood Events in Connecticut, 1936 to 2017

Date(s) of Event	Event Name	Flood Event Type	Areas Affected	Description
March 1936	Great Connecticut River Flood	Riverine Flood	The Connecticut River; the Housatonic River; and the Thames River	Melting snow and moderately heavy rains (six to eight inches) over a 13-day period totaled ten to thirty inches of water entering rivers across the Northeast. The Connecticut, Housatonic, and Thames Rivers reached record flood heights, and the event was estimated to be a 500-year flood. An estimated 14,000 people were left homeless, several people died, and epidemic disease from contaminated waters threatened the population. In Connecticut, the flood resulted in an estimated twenty million dollars (1936 dollars) in property damage.
September 21, 1938	The Great New England Hurricane of 1938	Riverine Flood; Coastal Flood;	Throughout Connecticut	The eye of the storm made landfall in New Haven, CT during high tide, creating an immense storm surge ranging from 14 to 18 feet along the Connecticut coast. Entire coastal communities were washed away by the force and magnitude of the storm surge. In addition, 10 – 17 inches of rain fell on the Connecticut River basin leading to massive river flooding. Across southern New England, a total of 8,900 homes, cottages and buildings were destroyed, and over 15,000 were damaged by the hurricane.
June 4 - 7, 1982	June 1982 Floods	Riverine Flood; Coastal Flood	South-central Connecticut	About 16 inches of rain fell from June 4 to 7, 1982, with the heaviest amounts occurring in south central Connecticut. Smaller rivers, such as the Yantic, Farmington, and Shetucket, experienced the most significant flooding. Damages were estimated at more than $276 million dollars, 11 deaths were recorded, over 15,000 homes were damaged, and over 400 commercial and industrial establishments were damaged. A total of 30 dams throughout the state failed or were partially breached during the storm.
October 8 - 9 and 13 - 15 2005	October 2005 Floods	Riverine Flood	Hartford and Tolland Counties	On October 8 - 9 and 13 - 15, 2005, nine to sixteen inches of rainfall resulted in major flooding in several basins in Hartford and Tolland Counties.[70] A total of 14 dams completely or partially failed, and another 30 dams were damaged

[70] CT DEP website publication *Heavy Rains and Flooding of Sub-Regional Drainage Basins: October 7-15, 2005*.

				throughout Connecticut. Several bridges failed and several dozen roads were washed out or undermined. The total damages to state, municipal, and non-profit properties was estimated at $6.1 million. Damages to businesses were estimated at $6.9 million, and damages to private residences were estimated at $29.6 million.
April 15, 2007	April 2007 Floods	Riverine Flood	Throughout Connecticut	Portions of the state received up to eight inches of rain within a 24-hour period, resulting in major flooding in central and western Connecticut. High tides increased flooding, and winds gusts reached 60 miles per hour. By early morning April 16, floodwaters, as well as downed trees and powerlines, had caused numerous state highway and local road closures. Over 44,000 customers lost electricity. Some damages included: $40,500 to Air National Guard facilities in Orange; $327,591 to state facilities; $313,894 to a firing range in Simsbury; $199,298 to other buildings statewide; $100,000 to non-FEMA eligible bridges in Bristol and Wallingford; and $7,500 related to washouts along the Danbury Branch Line of the Amtrak rail.
March 2010		Riverine Flood; Coastal Flood	Throughout Connecticut, having the highest impact in the southeastern part of the state	During the month of March 2010, three major rain events occurred on March 12, March 23, and March 29-30. On March 12, many areas received between 4 and 5 inches of rainfall in a 24-hour period. Wind gusts from 60 to 75 miles per hour were recorded. In Greenwich, 400 of 700 roads were impassable due to a combination of fallen trees and energized power lines. On March 23, an additional 1.5 to 3.2 inches of rain fell on already swollen rivers and saturated soil, preventing recovery. On March 29 - 30, the state was struck by the third and most severe of the heavy rain episodes. During a 36-hour period, heavy rainfall totaling from 4 to 10 inches occurred across the state. The heaviest rainfall occurred in southeastern Connecticut, where some locations received up to 10 inches of rain in 36-hours. In at least 8 different locations in New London County, the CT DOT records indicate that 500-year water levels were reached.
August 28, 2011	Tropical Storm Irene	Riverine Flood; Coastal Flood	Throughout Connecticut	Tropical Storm Irene swept across the east coast on August 28, 2011 hitting Connecticut harder than any other state. Maximum wind gusts were 66 mph, while average wind gusts for the entire state were 52.3 mph. The storm killed two

				Connecticut residents and left hundreds of thousands of people without power. The storm hit the coast at high tide, which caused a storm surge that flooded roads and homes from Fairfield to New London counties. Many homes were a 'total loss' and residents needed to be rescued as waters rose up to a quarter mile from the shoreline. Following the storm, trees, branches, and power lines remained scattered across roads in every town in the state. About 2,000 residents were in shelters and the number of power outages was highest in recent memory.
October 19, 2012	Hurricane Sandy	Coastal Flood	Coastal counties	Super Storm Sandy began as a tropical wave in the Caribbean on October 19, 2012, quickly developed into a tropical storm in just six hours, and ultimately upgraded to a hurricane on October 24th as maximum winds reached 74 mph. An emergency declaration for Sandy was issued in Connecticut on October 28, followed by a disaster declaration on October 30. As it reached Connecticut, Sandy caused the Long Island Sound to flood basements and roads along the coast. Millions of gallons of raw and partly untreated sewage were discharged into the Long Island Sound.[71] The storm left about 30 percent of customers in the state without power, and three deaths were reported. As of May 2013, more than $367 million in federal assistance had been approved to help Connecticut with disaster expenses. Fairfield County was the hardest hit with over 1,000 trees down, 1,000 homes flood-damaged, 5,000 citizens evacuated, six homes washed out to sea, and more than 24 homes condemned.

[71] The Huffington Post. Hurricane Sandy: Connecticut Shoreline Damage Assessment Begins. 11/13/2012. Dave Collins.

According to NCEI records, there have been 356 flood events from January 1993 to December 31, 2017. These events resulted in $52,515,233 in estimated property damages in adjusted dollars (Table 2-39). A total of one death and three injuries are attributed to these floods. Fairfield County has experienced 128 flood events since 1993; accounting for one-third Connecticut's flood and total damages. Deaths and injuries by county is not provided because NCEI reports list damages by regional zones.

Table 2-39: NCEI Total Flood Events by County, 1993 – 2017

County	Number of Events	Property Damages (2017 Dollars)
Fairfield	128	$17,638,967
Hartford	102	$15,639,328
Litchfield	124	$4,072,509
Middlesex	41	$643,981
New Haven	123	$4,319,243
New London	99	$7,628,644
Tolland	14	$1,619,491
Windham	13	$953,070
Total	*	$52,515,233

**Note: totals were not included because NCEI events may be counted more than once if one storm event affects multiple counties.*

Ice Jams

The US Army Corps of Engineers' Cold Regions Research and Engineering Laboratory (CRREL) maintains a database of ice jam history drawing largely from USGS river gauge information. This database includes 199 records of jams from February 28, 1902 to January 21, 2015. Five additional ice jams were recorded during 2018. Events recorded during in the last 20 years have been summarized in

Table 2-40. The database indicates that the state experiences both freeze and breakup events. Other sources of information include historical accounts, newspapers, personal interviews and CRREL files. However these data sources often lack quantitative information available in USGS data sources.

Table 2-40: History of Ice Jams in Connecticut

Event Date	River	Location	Description/Losses
1/15/2018	Connecticut River	Middle Haddam	Break-up jam
1/15/2018	Housatonic River	New Milford	Unknown
1/13/2018	Quinebaug River	Quinebaug	Break-up jam
1/13/2018	Housatonic River	Kent	Break-up jam
1/13/2018	Shepaug River	Roxbury	Break-up jam
1/21/2015	Saugautuck River	Westport	The Saugautuck River near the Levitt Pavillion for the Performing Arts was jammed with ice late on January 21, 2015.
1/6/2014	Pomperaug River	Woodbury	An ice jam resulted on the Pomperaug River at Judson Avenue bridge in Woodbury, CT on Monday, January 6 due to warm temperatures and heavy rain.
1/27/2005	Connecticut River	Middletown	An ice jam on the Connecticut River in Middletown, CT was frozen in place for about one week. The ice jam was located immediately upstream of Wilcox Island, which is just upstream of Arrigoni Bridge. The jam slowly began to dissipate starting February 7.
2/7/2004	Yantic River	Norwich	The National Weather Service reported an ice jam developed on the Yantic River at Norwich, CT at noon on 2/7/2004. By 7AM on 2/8/2003, NWS reported the river was rising rapidly behind the jam, with no flooding reported.
1/24/2003	Shetucket River	Baltic	Freeze up ice jams developed on the Shetucket River near the route 97 bridge at Baltic, a site that previously had ice jam problems including the 1994 ice jam.
2/29/2000	Housatonic River	Gaylordsville	The Housatonic River reached a maximum gage height of 7.5 feet after an ice jam formed near Bulls Bridge and water backed up through drains into Veterans Plaza. Six homes in the low-lying residential neighborhood of Oxford were flooded.
1/19/1999	Housatonic River	New Milford	Minor flooding occurred on the Housatonic River at the Rocky River Plan due to an ice jam.
1/24/1999	Housatonic River	Kent	An ice jam was located on the Housatonic River about two mils south of Kent above Bulls Bridge Dam. The jam resulted in some overflow onto Route 7.
1/24/1999	Housatonic River	New Milford	An ice jam was located on the Housatonic River south of New Milford, CT. A flood warning was issued for the Housatonic River in CT.

1/24/1999	Housatonic River	Kent	A second ice jam was located above Kent on the Housatonic River in New York, just upstream of the Falls Village Hydroplant. The river was just over 6 feet at Falls Village, which is bankful.
1/25/1999	Housatonic River	Gaylordsville	The Housatonic River crested in Gaylordsville during the early morning of Monday, January 25th near 9.5' (flood stage is 8'). Flooding occurred on Youngfield Court. The rise in the Housatonic River was caused by an ice jam.

Salmon River, East Haddam (Leesville)

Ice jam-related flooding has historically been a problem along the lower reach of the Salmon River in the Leesville area of East Haddam. A damaging ice jam occurred most recently in 2000 causing localized road closures.

A similar event in 1994 was caused by break-up of thick river ice due to a sudden increase in discharge from snowmelt and heavy rain. The ice jam formed about a half mile downstream of the Route 151 bridge and progressed back to about 500 feet downstream of the dam. The jam caused water levels in the river to rise, flooding several homes and Powerhouse Road. The flood pool created by the ice jam eventually stabilized as the water created a new path around the ice and into a riverbank.

Another ice jam event occurred in February, 1982 when ice flowed over the dam and jammed at the Route 151 bridge. Many residents in the area believe the lowering of the dam and removal of its control gates has resulted in increased ice jam activity below the dam. Historical evidence supports this assumption as similar winter jams occurred in January 1910 and 1940 when structural damage to the dam allowed ice to flow out of the impoundment. In contrast to the years when the dam was in place and the conditions that result in ice jams existed, there were no ice jams noted downstream of the dam.

Based on available records for the Salmon River, severe ice jam events similar to 1982 and 1994 are probable when ice thickness exceeds 9 inches and average daily discharge increases by at least 1,400 cubic feet per second (cfs) during a single day. The USACE CRREL assumes that seasonal breakup events based on discharge occur when the one-day increase in stage flow is in excess of 1.5 times the ice thickness. Also, tides (tidally influenced back water from the Connecticut River) appear to influence the ice jam location and ice jams form above and downstream of the Route 151 bridge.

Shetucket River, Sprague (Baltic)

The Village of Baltic, a section of Sprague located along the Shetucket River about 9 miles upstream from the Thames River confluence. The total drainage area at Baltic is 460 square miles. Two hydroelectric dams that affect river discharge. The Scotland Dam is located about four miles upstream and the Occum Dam is located about 2.2-miles downstream from the Main Street bridge (Route 97).

Since 1956, the town experienced several ice jams during mid to late winter, usually in January and February. Prior to 1956, no ice-related flooding was recorded in the village, probably because the Baltic Dam, which breached in 1955, controlled the ice upstream of the populated area of the village.

Break-up ice jams form when solid ice cover on the Shetucket River breaks up and moves downstream. It appears that ice causing problems in Baltic comes from a two mile river reach between the Scotland Dam upstream on the Shetucket River and the village. The slope of the river through the reach is very flat and the channel meanders, causing ice floes to lose momentum and slow. In addition, the backwater of Occum Dam, located about two miles downstream of the village, causes thick ice and a stable water surface elevation. As a result, ice jams tend to remain intact until sufficient pressure is built up behind the jam to dislodge it and move it downstream.

During the mid-1950's, the town requested assistance from the U.S. Army Corps of Engineers (USACE) for non-ice related flooding. The USACE supported construction of an earthen flood control berm along the low elevation residential area. The berm top elevation is 77.5 feet NGVD, and a top width of eight feet. Although the berm does not tie into high ground, it does provide protection against a 10-year flood event.

On January 29, 1994, an ice jam occurred on the Shetucket River downstream of the Route 97 bridge in Baltic. The ice jam, about three-fourths of a mile in length, was grounded in numerous locations. Although the average ice thickness was 18 to 20 inches, the jam was about eight feet thick in several locations. Floodwaters behind the jam overtopped the flood control berm flooding 31 houses and four commercial businesses. One house was severely damaged when the ice broke through its masonry block foundation wall. Eventually, a channel opened under the ice to allow flood discharge to pass by the jam so the flood area drained, but the jam remained in place.

This severe ice jam flood prompted a post-disaster reconnaissance study by the USACE, who estimated that the 1984 ice jam caused flood damages of $526,000 for 31 residential properties and four commercial properties. In addition, it was estimated that the flood stages experienced during the January 1994 flood could occur as a result of ice affected flow approximately once in 12 years. The principal ice jam flood problem is located adjacent to Route 97. It extends a distance of about 2,200 linear feet from a drainage culvert under Route 97 that drains a low area south of the state highway to an area upstream of the Blanchette Field at River Drive. It is estimated that there are 84 structures in the 500-year flood plain, 77 of which are residential structures, four are commercial structures and three are public buildings.

FEMA Disaster Declarations

There have been no federally declared major disasters related to flooding since the 2014 plan update.

2.13.8 National Flood Insurance Program (NFIP)

Floodplain management begins at the community level with operation of a community program of corrective and preventative measures for reducing flood damage. For inclusion in the NFIP, communities adopt their flood hazards maps and the community Flood Insurance Study (FIS). In addition, a FEMA-compliant floodplain management ordinance that regulates activity in the floodplain is adopted and enforced.

A community's agreement to adopt and enforce floodplain management ordinances, including regulation of new construction in the Special Flood Hazard Area (SFHA) or 100-year floodplain, is a requirement for making flood insurance available to home and business owners. To address the threat of flood damage, many communities and residents participate in the NFIP. Homeowner insurance policies do not cover damage from flood.

As of November 28, 2017, 177 communities in Connecticut participated in the NFIP. Data on active NFIP policies was obtained from FEMA's Community Information System.

Table 2-41 shows NFIP flood policy and claim information by county. There are 39,040 policies in-force for Connecticut NFIP communities. Policy holders pay more than $53 million annually in premiums for $9.9 billion in building and contents coverage.

The coastal counties of Fairfield, Middlesex, New Haven and New London, along with Hartford County (due to the location of the Connecticut River within the center of the county), have the highest risk of flooding within the State. Fairfield has 16,468 policies in place, with 11,361 losses and $248 million in payment for those losses. New Haven has 10,208 policies in-force, 9,280 losses, and $164 million in payments for those losses.

Appendix 2 includes the municipality specific information for the NFIP statistics.

Table 2-41: NFIP Policy and Claim Information (As of November 2017)

County	# of Policies In-Force	Insurance In-Force	Written Premium In-Force	# of Total Losses	Total Payments Since 1978
Fairfield	16,468	$4,352,495,800	$22,692,534	11,361	$247,840,546
Hartford	3,152	$747,638,300	$3,897,489	1,707	$13,534,450
Litchfield	997	$229,638,800	$1,399,126	481	$6,002,992
Middlesex	3,522	$900,515,600	$5,146,416	2,204	$36,905,194
New Haven	10,208	$2,448,043,000	$13,110,651	9,280	$164,538,542
New London	4,266	$1,108,482,700	$6,366,313	2,106	$29,412,265
Tolland	253	$59,204,000	$303,089	158	$1,604,997
Windham	174	$42,100,100	$245,310	68	$1,338,495
Total	39,040	$9,888,118,300	$53,160,928	27,365	$501,177,481

Community Rating System (CRS)

The National Flood Insurance Program's (NFIP) Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. As a result, flood insurance premium rates are discounted to reflect the reduced flood risks. There are ten CRS classes: Class 1 requires the most credit points and gives the largest flood insurance premium reduction; Class 10 receives no premium reduction. These discounts are applied per each CRS community and apply to all flood insurance policyholders. For CRS participating communities, flood insurance premium rates are discounted in increments of 5%; i.e., a Class 1 community receives a 45% premium discount, while a Class 9 community receives a 5% discount. If a community does not apply or fails to receive at least 500 points, it's in Class 10, and property owners get no discount (FEMA 2017). Table 2-42 lists the communities in Connecticut that are currently participating in the CRS.

Table 2-42: Participating CRS Communities in Connecticut

Community #	Community	CRS Entry Date	Current Effective Date	Current Class	% Discount for SFHA	% Discount for Non-SFHA	Status
90007	Town of Fairfield	10/1/2016	10/1/2016	8	10%	5%	C
90011	Town of Newtown	10/1/1991	10/1/1991	9	5%	5%	C
90012	City of Norwalk	10/1/1993	10/1/1998	10	0%	0%	R
90015	City of Stamford	10/1/2002	10/1/2002	7	15%	5%	C
90019	Town of Westport	10/1/1995	10/1/2000	8	10%	5%	C
90070	Town of Westbrook	5/1/2005	5/1/2011	10	0%	0%	R
90074	Town of Cheshire	10/1/1993	10/1/2003	10	0%	0%	R
90076	Town of East Haven	10/1/2003	10/1/2010	10	0%	0%	R
90078	Town of Hamden	10/1/1993	10/1/2006	10	0%	0%	R
90082	City of Milford	5/1/2012	5/1/2012	9	5%	5%	C
90084	City of New Haven	5/1/2017	5/1/2017	7	15%	5%	C
90096	Town of East Lyme	10/1/1991	5/1/2016	8	10%	5%	C
90106	Town of Stonington	10/1/2017	10/1/2017	8	10%	5%	C
90193	Borough of Stonington	10/1/2004	10/1/2014	8	10%	5%	C
95082	Town of West Hartford	10/1/1991	10/1/2007	8	10%	5%	C
Source: FEMA Community Rating System Eligible Communities Effective October 1, 2017.							

Addressing Repetitive Loss (RL) and Severe Repetitive Loss (SRL) Properties

The Bunning-Bereuter-Blumenauer Flood Insurance Reform Act of 2004 was signed into law by President George W. Bush on June 30, 2004. The Act (Public Law 108-264) revised the existing Flood Mitigation Assistance (FMA) Program by creating a Pilot Program at $40 million per year to mitigate Repetitive Loss (RL) properties. The Severe Repetitive Loss (SRL) Program provides funds for local governments to address the most egregious flood prone properties with the most flood insurance claims. The program features a reduced non-Federal match (from 25% to 10%) with an approved mitigation plan that specifies the State's strategy to reduce the number of RL and SRL properties. The amendment authorizes scheduled increases in flood insurance premium rates to actuarial rates for SRL property owners who refuse a formal and complete mitigation grant offer through the SRL grant program to mitigate an SRL structure. The three NFIP-funded flood mitigation programs, SRL, RFC and FMA were combined through the Biggert-Waters National Flood Insurance Reform Act of 2012, signed into law by President Barack Obama on July 6, 2012. The Consolidated Appropriations Act of 2014 (Omnibus), prohibits FEMA through the National Flood Insurance Program (NFIP) from implementing Section 207 of the Biggert-Waters Flood Insurance Reform Act of 2012. Section 207 directed FEMA to ensure that certain properties' flood insurance rates reflects their full risk after a mapping change or update occurs.[72] On March 21, 2014, President Obama signed the Homeowner Flood Insurance Affordability Act of 2014 into law. The law repeals and modifies certain provisions of the Biggert-Waters Flood Insurance Reform Act, which was enacted in 2012, and makes additional program changes to other aspects of the program not covered by that Act. Many provisions of the Biggert-Waters Flood Insurance Reform Act remained and are still being implemented. The new law lowered the recent rate increases on some policies, prevented some future rate increases, and implemented a surcharge on all policyholders. The Act also repealed certain rate increases that had already gone into effect and provided for refunds to those policyholders.[73]

Many flood insured properties have had more than one claim. A property that is currently insured, and which two or more NFIP losses (occurring more than ten days apart) of at least $1,000 each have been paid within any 10-year period since 1978 is defined as a "repetitive loss property" in the NFIP program.

As of February, 2018, Connecticut has a total of 3,368 repetitive loss properties, of which 298 have been mitigated (Table 2-43). Of the 3,070 unmitigated RL properties which includes Special Direct Facility (SDF) properties, 2,039 are insured (66% of the unmitigated properties). These buildings have experienced 5,876 insured losses of $160 million. The City of Milford has 84 mitigated properties, the Town of Hamden 34 mitigated properties and the Town of Westport 30 mitigated properties.

The number of repetitive loss properties in the Town of Guilford increased from 12 listed in 2010 to 60 listed in 2013, and 64 in 2018. While this is attributed in part to coastal storms such as Tropical Storm Irene in 2011 and Super Storm Sandy in 2012, inland communities

[72] https://www.fema.gov/media-library-data/1392062928758-80537fe9ad63607837d8a29f04280492/BW12_consolidated_app_2014.pdf
[73] https://www.fema.gov/media-library-data/1396551935597-4048b68f6d695a6eb6e6e7118d3ce464/HFIAA_Overview_FINAL_03282014.pdf

have also experienced an increase in listed properties. For example, the number of repetitive loss properties in the town of Southbury increased from 10 listed in 2008 to 20 listed in 2013 due to a series of floods along the Pomperaug River. The community has 19 unmitigated RL properties in 2018.

Table 2-43: Summary of Connecticut Repetitive Loss Properties.

County	Total RL Properties	Total Insured RL Properties	Total Mitigated RL Properties	Total Unmitigated RL Properties	Total Insured Unmitigated RL Properties
Fairfield County	1330	914	89	1241	851
Hartford County	168	63	18	150	63
Litchfield County	40	24	1	39	24
Middlesex County	272	192	17	255	185
New Haven County	1390	902	159	1231	815
New London County	154	95	12	142	94
Tolland County	9	4	2	7	4
Windham County	5	3	0	5	3
State Total	3,368	2,197	298	3,070	2,039

Residential Severe Repetitive Loss (SRL) properties consist of any NFIP-insured residential property that has met one of the following paid flood loss criteria since 1978, regardless of ownership:

- 4 or more separate claim payments of more than $5,000 each (including building and contents payments); or
- 2 or more separate claim payments (building payments only) where total payments exceed current value of the property

For either scenario, two of the claim payments must have occurred within 10 years of each other. If multiple losses are at the same location with 10 days of each other, they are counted as one loss, with payment amounts added together.

The state has 163 validated residential properties that are categorized as Severe Repetitive Loss properties. Additional site specific SRL and RL claims histories can be obtained by contacting the State. A complete listing of the number of RL and SRL properties by Jurisdiction is included in Appendix 2.

Connecticut state agencies and communities have taken many actions that are intended to reduce the number of repetitive loss properties and severe repetitive loss properties since 2013. Many of these actions are described in the Capability Assessment.

The fundamental action needed to begin reducing the number is to enable and encourage currency of local mitigation plans to enable continued eligibility for grant funding to mitigate these properties as well as detail strategies to encourage outreach to repetitive property owners for mitigation collaboration and solutions. Thus, the planning process is a key critical first step for reducing the number of repetitive loss properties and severe repetitive loss properties.

The State identifies, evaluates and prioritizes cost-effective, environmentally sound, and technically feasible mitigation actions for repetitive loss properties. Before this can be done, two actions must be accomplished. First, the State and local communities must validate repetitive loss and severe repetitive loss inventories to focus on properties that could benefit from mitigation. This can be accomplished by field-verifying listed RL and SRL properties. FEMA's National Flood Mitigation Data Collection Tool (NFMDCT), known more succinctly as the National Tool can aide this process.

Second, Connecticut DESPP/DEMHS will continue to prioritize targeted RL/SRL properties for local mitigation actions supporting communities in which they are located. Emphasis will be placed on the ten communities with the highest number of listed properties (Milford, Norwalk, Westport, East Haven, Fairfield, Branford, Greenwich, Stamford, Westbrook, Old Saybrook).

Per the State's Repetitive Loss Strategy, when funds are available, the Connecticut will pursue Federal grants to mitigate SRL and RL properties. The State will continue to act as the Applicant for FEMA HMA funds and support eligible Sub-applicants (typically municipalities and Tribal Governments). The State will encourage eligible Sub-Applicants to apply for funds to mitigate RL and SRL properties. The Flood Mitigation Assistance Program (FMA), when funded, provides one of the best mechanisms for mitigating NFIP-insured properties. Through pre-determined cost share percentages, FEMA has established priorities under this program. SRL properties can be funded at 100% of eligible project costs and RL properties can be funded at 90% of eligible project costs. FEMA has also established a Project Useful Life (PUL) for mitigation projects. The State will give priority to Sub-applications for projects with a higher PUL as defined by FEMA. The State will attempt to maximize funding under this program and, in keeping with FEMA's prioritization, place higher priority on mitigating SRL properties under FMA. A Benefit Cost Analysis (BCA) is required to be run for projects submitted under the FMA program. Where projects are evenly ranked, those project sub- applications with higher BCA result will be given a higher priority.

As Federal funding becomes more competitive, the State will make efforts to identify alternative funding for mitigation. As part of the FEMA-approved Repetitive Loss Strategy, the State will continue its attempt to maximize funding under programs other than those managed by FEMA. This includes funding from the Natural Resource Conservation Service (NRCS) and as available under State bonding initiatives. DEMHS will continue to advocate for the allocation of State Bond funds to support mitigation efforts. This includes mitigation of SRL and RL properties by local governments or private property owners.

The Pre-Disaster Mitigation Program (PDM) and the Hazard Mitigation Grant Program (HMGP), under FEMA's Hazard Mitigation Assistance (HMA) grant program portfolio, can fund projects unrelated to flooding and can benefit structures without NFIP coverage. As these programs can fund a diverse range of project types, the repetitive loss strategy will not apply to these funds. This will allow the State to determine priorities for these programs to address all hazards.

Coastal Barrier Resource System

Coastal barriers are unique landforms that provide protection for diverse aquatic habitats and serve as the mainland's first line of defense against coastal storms and erosion. Congress recognized the vulnerability of development on coastal barriers and passed the Coastal Barrier Resources Act of 1982 (COBRA) and the Coastal Barrier Improvement Act of 1990 (CBIA), establishing a system of protected COBRA areas and Otherwise Protected Areas (OPAs) known as the Coastal Barrier Resources System (CBRS).

The Acts protect these areas by prohibiting the expenditure of most Federal funds that encourage development, including "any form of loan, grant, guarantee, insurance, payment, rebate, subsidy or any other form of direct or indirect federal assistance". Federal disaster assistance is limited to emergency relief – there are no loans or grants to repair or rebuild structures in CBRS areas. COBRA also banned the sale of National Flood Insurance Program (NFIP) flood insurance for structures built or substantially improved on or after October 1, 1983 in these areas. By restricting federal expenditures and financial assistance which have the effect of encouraging development of coastal barriers, Congress aimed to minimize the loss of human life and damage to fish, wildlife, and other natural resources associated with coastal barriers.

Table 2-44 summarizes the communities in Connecticut that have a COBRA or OPA unit. Overall, Connecticut has 19 COBRA and nine OPA units, with the most units located in

New London County.

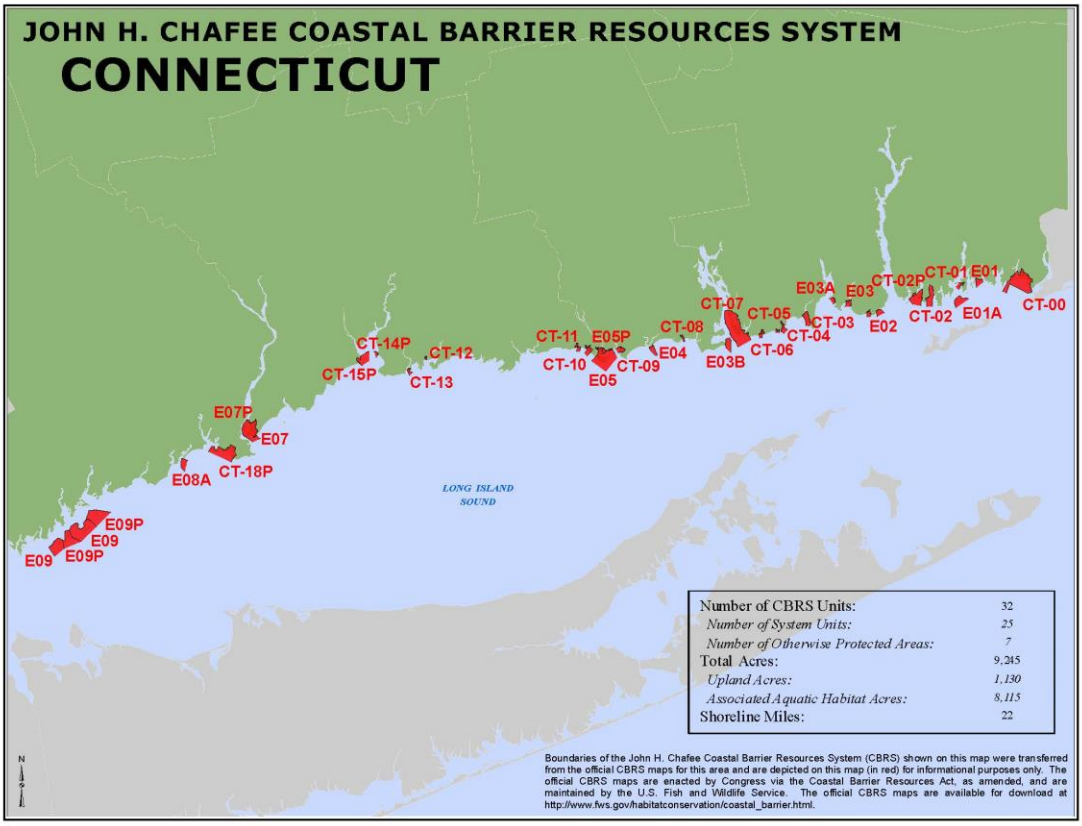

Figure 2-17 shows the locations of these units.

Table 2-44: Coastal Barrier Resource Areas in Connecticut

Community	County	COBRA	OPA
Town of Branford	New Haven	Y	N
City of Bridgeport	Fairfield	Y	Y
Town of Clinton	Middlesex	Y	Y
Town of East Lyme	New London	Y	N
Borough of Fenwick	Middlesex	Y	N
City of Groton	New London	Y	N
Town of Groton	New London	Y	Y
Groton Long Point Association	New London	Y	N
Town of Madison	New Haven	Y	N
City of Milford	New Haven	Y	Y
City of New Haven	New Haven	N	Y
City of New London	New London	Y	N
City of Norwalk	Fairfield	Y	Y
Town of Old Lyme	New London	Y	N
Town of Old Saybrook	Middlesex	Y	N
Borough of Stonington	New London	Y	N
Town of Stonington	New London	Y	N
Town of Stratford	Fairfield	N	Y
Town of Waterford	New London	Y	N
City of West Haven	New Haven	N	Y
Town of Westbrook	Middlesex	Y	N
Town of Westport	New Haven	Y	Y
Town of Branford	Fairfield	Y	N

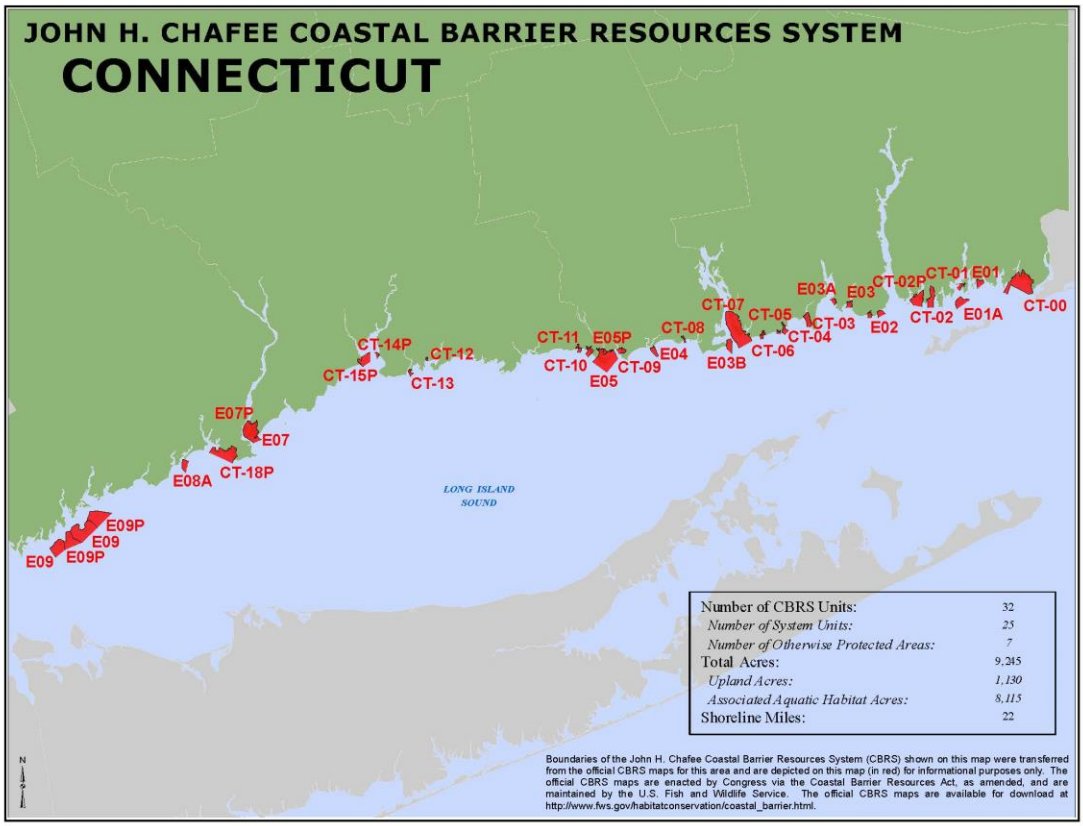

Figure 2-17: Connecticut Coastal Barrier Resources System

2.13.9 Probability of Future Events

Flood

Major riverine flooding can occur in any month of the year, but three seasons have heightened flood vulnerability:

- Late winter/spring melt;
- Late summer/early fall; and
- Early winter.

Floods can be described based on their extent and their recurrence interval. The recurrence interval, or return period, is based on the probability that a given event will be equaled or exceeded in any year. A rainfall recurrence interval, therefore, is based on the magnitude and the duration of a rainfall event.

A Special Flood Hazard Area is subject to inundation by a flood that has a 1-percent or greater chance of being equaled or exceeded in any given year. Commonly referred to as the 100-year flood, 1% chance flood or base flood; 100-year flood is not a flood that occurs every

100 years. The 100-year flood has a 26 percent chance of occurring during a 30 year period, the typical length of many mortgages. It is also important to note that once a flood occurs, its chance of recurring remains the same. The 100-year flood is a regulatory standard used by Federal agencies, states and NFIP-participating communities to administer and enforce floodplain management programs. The 100-year flood is also used by the NFIP as the basis for insurance requirements nationwide[74]. The main recurrence intervals used on FEMA NFIP Flood Insurance Rate Maps (FIRM's) are shown in Table 2-45.

Table 2-45: USGS Recurrence Intervals and Probabilities of Occurrences

Recurrence Interval (years)	Annual Probability of Occurrence	Annual Percent Change of Occurrence
500	1 in 500	0.2
100	1 in 100	1
some	1 in 50	2
25	1 in 25	4
10	1 in 10	10
5	1 in 5	20
2	1 in 2	50

Flooding has had significant impacts on Connecticut in the past and is likely to impact the State in the future. NCEI data suggests that approximately one to six events of some significance occur somewhere in Connecticut annually. Connecticut, based on historical information, has a high probability of future flood occurrence. Fairfield and Litchfield counties have had the highest number of reported flood events, followed by Hartford and New London counties. Table 2-46 shows the annualized number of flood events by county and the annualized property damage based on the NCEI historical record.

Table 2-46: NCEI Annualized Flood Events and Property Damages

County	Number of Events	Property Damage (2017 dollars)
Fairfield County	5.82	$801,771.24
Hartford County	4.64	$710,878.56
Litchfield County	5.64	$185,114.03
Middlesex County	1.86	$29,271.86
New Haven County	5.59	$196,329.24
New London County	4.5	$346,756.53
Tolland County	0.64	$73,613.21
Windham County	0.59	$43,321.36
Total	*	$2,387,056.04

*Note: *annualized event totals were not included because NCEI events may be counted more than once if one storm event affects multiple counties. This duplication renders totals inaccurate.*

[74] National Flood Insurance Program (www.fema.gov)

Ice Jams

Ice jams are a frequent hazard in Connecticut that can affect any community that borders a river. The CRREL database recorded 199 ice jams between 1902 and 2015. Based on this record, Connecticut can expect to experience between one and two ice jams annually.

2.13.10 Climate Change Impacts

More intense rainfall, the result of climate change, is likely to increase peak flooding, particularly in urban environments in the future. The magnitude of this increase is dependent on the level and rate of greenhouse gas emissions through the end of the century. Changes in precipitation patterns in Connecticut are likely to amplify flood and drought impact.[75] Average annual precipitation in the Northeast increased 10 percent from 1895 to 2011, and precipitation from extremely heavy storms has increased 70 percent since 1958.[76] Climate change is increasing water temperatures in the ocean and cause the development of stronger tropical storms that can cause more severe coastal flooding and intensify storm surge, increasing the vulnerability of coastal communities. Additional information regarding the impacts of climate change on Connecticut can be found in Section 2.4 of this chapter.

2.14 Flood-Related Hazards Vulnerability Assessment

Flooding can impact all areas of Connecticut, especially those areas located near the Long Island Sound and along rivers.

2.14.1 Assessment of State Vulnerability and Potential Losses

The entire state continues to be vulnerable to flooding and the impacts associated with this natural hazard. There are many factors which continue to affect future vulnerability to flooding including:

- Connecticut is a water-rich state with many rivers, streams and brooks with some drainage basins extending beyond state borders.
- Connecticut's past land use patterns and building stock and infrastructure within flood-vulnerable areas will continually be vulnerable to flooding. Local land use regulations and ordinances made progress to reduce unregulated development within flood hazard areas. However, Connecticut is one of the oldest states in the nation with limited undeveloped land creating high property values. Limited land availability and high property values encourages redevelopment in high risk areas.
- Increases in flooding have occurred with increased impervious surfaces in watersheds. Some Connecticut watersheds drain from Canada. Increased impervious areas in watershed combined with increased precipitation has resulted in increased flooding. Low Impact Development (LID) techniques and other onsite hydrology management techniques should be implemented wherever possible. LID is

[75] https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/climate-change-ct.pdf
[76] Average annual precipitation in the Northeast increased 10 percent from 1895 to 2011, and precipitation from extremely heavy storms has increased 70 percent since 1958.

an approach to land development (or re-development) that works with nature to manage stormwater as close to its source as possible.

Flooding often results because of other natural hazards such as hurricanes and tropical storm systems, winter and coastal storms, ice jams, dam failures, and severe precipitation events. Sea level rise and the increased intensity of frequency of storm surge due to climate change also contribute to flood severity. All areas of Connecticut continue to be vulnerable to flooding and the impacts associated with this natural hazard. Impacts related to development type and density in the flooded area. Table 2-5 includes the number of infrastructure/facilities, building value and contents value by municipality. There are 3,327 state-owned facilities valued at $5.6 billion, with more than $866 million in contents value. It should be noted that building and contents value data is limited, with roughly 50% of state owned structures lacking building and contents value estimates. Appendix 2 includes the infrastructure and facilities datasets, as well as the loss estimates by municipality for facilities located within the known hazard geographic extents.

Flood loss estimates and risk to critical facilities have been derived using the FEMA Hazus module for riverine and coastal flood hazards. Flood hazard is defined by a relationship between depth of flooding and the annual chance of flooding to that depth. A Hazus Level 2 analysis was performed with user-provided depth grids were generated from provided terrain data, and FEMA Digital Flood Insurance Rate Maps (DFIRMs).

Loss estimation for the Hazus flood module is based on specific input data. The type of data shown in Table 2-47 includes information on the local economy that is used in estimating losses.

Table 2-47: Hazus direct economic loss categories and descriptions.

Category Name	Description of Data Input into Model	Hazus Output
Building	Cost per sq ft to repair damage by structural type and occupancy for each level of damage	Cost of building repair or replacement of damaged and destroyed buildings
Contents	Replacement value by occupancy	Cost of damage to building contents
Inventory	Annual gross sales in $ per sq ft	Loss of building inventory as contents related to business activities
Relocation	Rental costs per month per sq ft by occupancy	Relocation expenses (for businesses and institutions)
Income	Income in $ per sq ft per month by occupancy	Capital-related incomes losses as a measure of the loss of productivity, services, or sales
Rental	Rental costs per month per sq ft by occupancy	Loss of rental income to building owners
Wage	Wages in $ per sq ft per month by occupancy	Employee wage loss as described in income loss
Business Disruption	N/A	Combination of inventory, relocation, income, rental, wage loss, direct output loss*

** Calculated value*

The flood model was used to run a 1-percent (i.e. 100-year) annual chance frequency flood based on the hazard depicted on the FIRMs. DFIRMS were available for Fairfield, Hartford, Middlesex, New Haven, and New London Counties. Floodplains derived using the Hazus software with 10 meter NED (National Elevation Dataset) and a one square mile threshold was used to analyze Litchfield, Tolland, and Windham. An additional multi-frequency scenario was run which included the following return periods; 10- percent (10 year), 4-percent (25 year), 2-percent (50 year), 1-percent (100 year), as well as the 0.2-percent (500 year) using a 30 meter NED and a 10 squares mile threshold. The multi-frequency scenario was performed for all counties using this methodology. The average annualized losses (AAL) for flood were calculated using this multi-frequency scenario. Both

are provided for analysis.

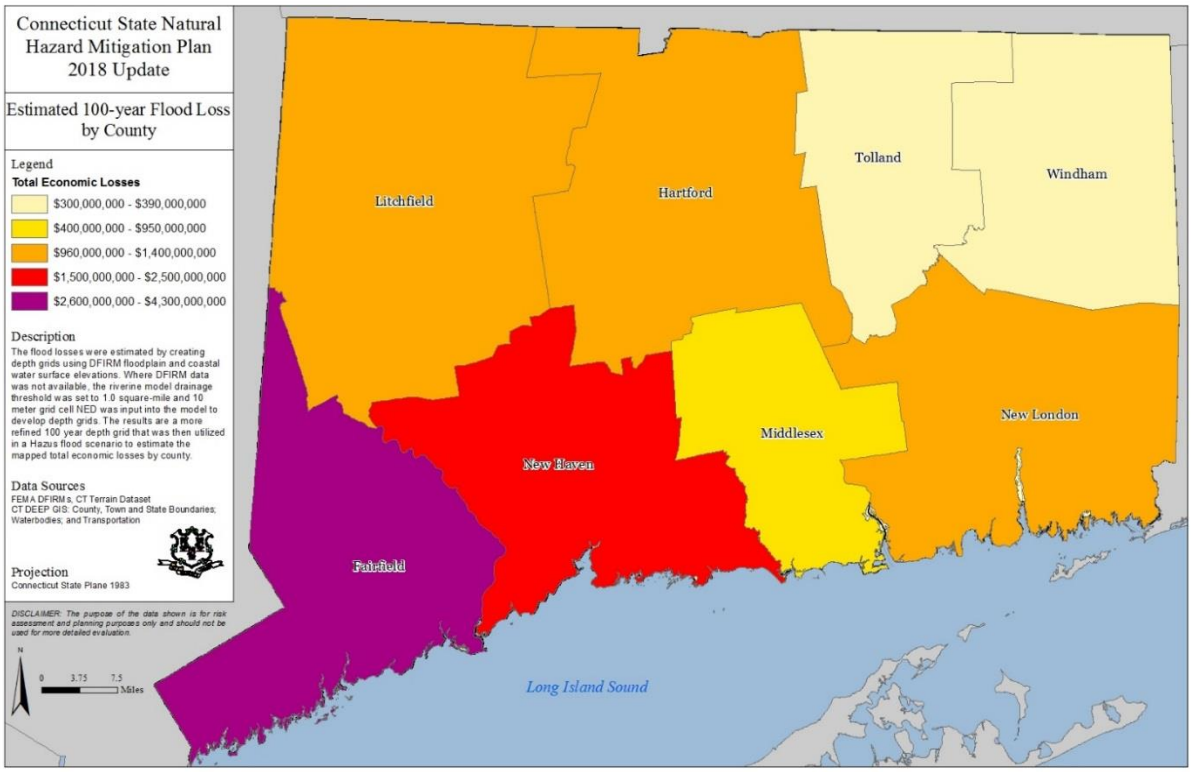

Figure 2-18 and Figure 2-19 show the estimated total 100-year economic flood loss by county and census block. It is apparent that the coastal and riverine areas are at higher risk, specifically in Fairfield and New Haven counties. Appendix 2 includes scenario- and jurisdiction-specific results from the Hazus analysis. The Connecticut officials should be contacted for the supporting Hazus data sets.

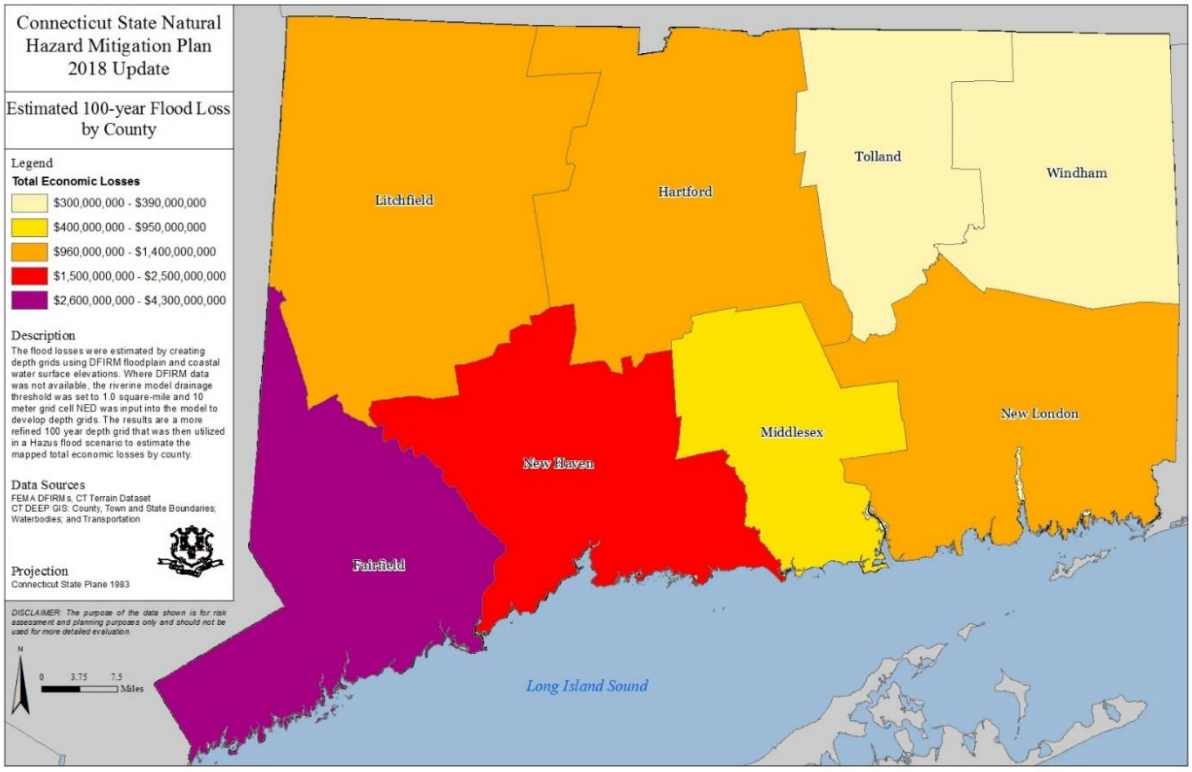

Figure 2-18: 100-year Flood Loss by County

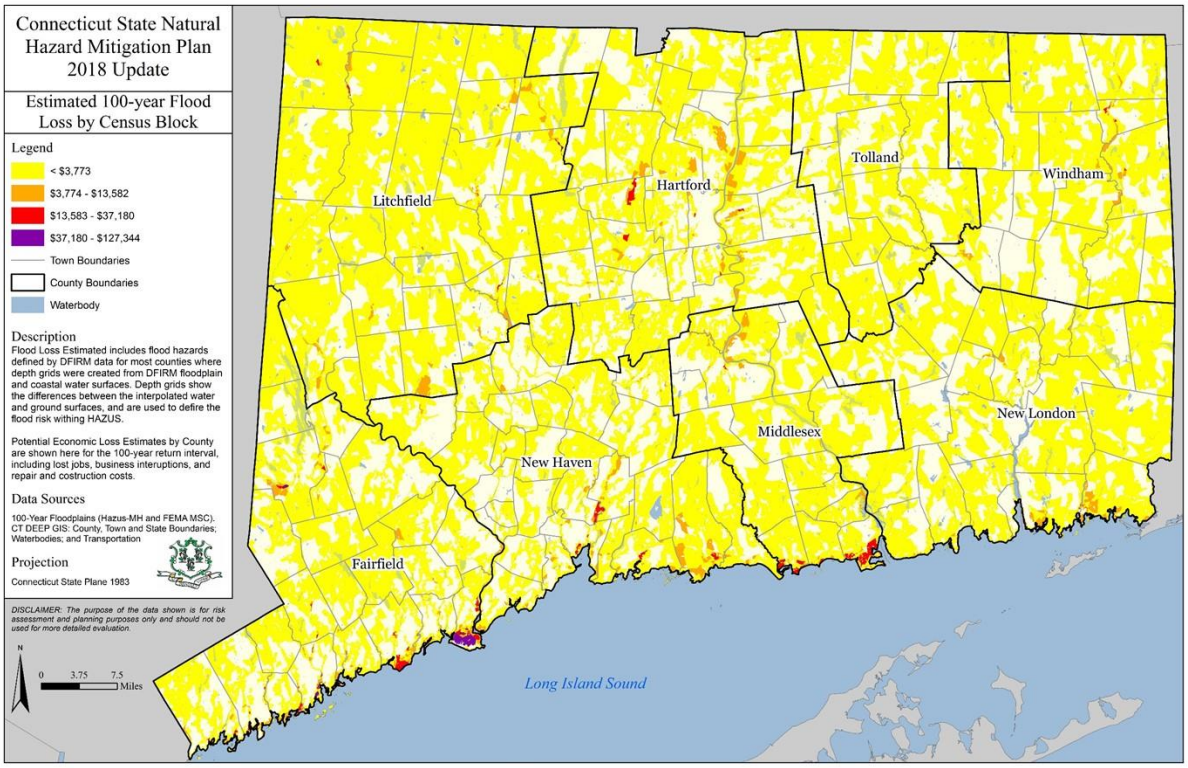

Figure 2-19: Estimated 100-year Flood Loss by Census Block

Table 2-48 shows the flood loss estimation values by county. The contents value is the highest estimated damage, with more than $7 billion with building loss of $5.1 billion. Litchfield County is estimated to experience the largest percent loss at 3.04 percent, while Fairfield will experience the largest total loss at $4,274,167. Fairfield County will also experience the largest amount of business disruption, with estimated losses of $110,802.

Table 2-48: Hazus 100-year flood loss estimation by County ($000's)

County	Actual Replacement Value	Building Loss	Contents Loss	Business Disruption	Total Loss	Percent Loss
Fairfield	$221,118,675	$1,727,377	$2,458,298	$110,802	$4,274,167	1.93%
Hartford	$202,087,968	$635,753	$781,849	$39,849	$1,447,299	0.72%
Litchfield	$46,324,195	$576,982	$792,744	$47,610	$1,408,816	3.04%
Middlesex	$41,974,738	$412,534	$521,510	$17,996	$947,479	2.26%
New Haven	$195,569,109	$1,044,654	$1,369,465	$60,380	$2,461,474	1.26%
New London	$60,119,835	$526,259	$677,933	$21,883	$1,220,849	2.03%
Tolland	$29,719,543	$120,061	$172,928	$12,714	$304,143	1.02%
Windham	$23,324,314	$154,214	$225,732	$14,866	$393,144	1.69%
State Totals	$820,238,377	$5,197,834	$7,000,459	$326,100	$12,457,371	1.52%

Impacts and areas of vulnerability include:

- Out of the total number of essential facilities (fire stations, police stations, schools, and hospitals) located within a county, each county may expect a small number of facilities to receive moderate damage, and in most cases just a couple of facilities are projected to experience substantial damage. No loss of use was projected in any county.

- Building occupancy most affected by a 100-year flood event is residential followed by commercial. In addition, the building material type in all counties that is most vulnerable is wood. Since damage to residential structures was shown through the Hazus model to be most prevalent in all county model scenarios, it is apparent that homeowner outreach programs should emphasize flood prevention, protection and safe recovery and clean up strategies.

- All counties may expect emergency shelter demand during evacuations and after disaster strikes. Though current Hazus simulations did not analyze shelter requirements for Windham and New London Counties, it is expected that shelter needs for Windham County will be similar to those of Tolland County, and that New London County shelter requirements are similar, though possibly slightly higher, than those of Middlesex County (because New London County has more lower elevation coastal communities).

Complete Hazus scenario generated reports for flooding can be found in Appendix 2.

As evidences in property loss estimations (Table 2-49) obtained from NCEI and Hazus, floods have the potential to be destructive and, although analyses vary, the overall trends are consistent. Total annualized damages range from more than $43,321 in Windham County to more than $801,771 in Fairfield County using NCEI data. Total annualized damages are compared to a total loss of all buildings within the 100-year floodplain, as estimated by Hazus. While Hazus reports much higher loss values than NCEI, it also shows that Fairfield County has the highest losses in the state, New Haven County has the second highest, and Tolland and Windham Counties have the lowest. The differences in the magnitude of the loss values may be a result of inconsistent storm event reporting in the NCEI Storm Events Database.

Table 2-49: Comparison of NCEI annualized events, Hazus 100-yr losses

County	NCEI Annualized Events	NCEI Total Annualized Damages (2017 dollars)	Hazus Total 100-year Losses
Fairfield	5.82	$801,771	$4,274,167,000
Hartford	4.64	$710,879	$1,447,299,000
Litchfield	5.64	$185,114	$1,408,816,000
Middlesex	1.86	$29,272	$947,479,000
New Haven	5.59	$196,329	$2,461,474,000
New London	4.5	$346,757	$1,220,849,000
Tolland	0.64	$73,613	$304,143,000
Windham	0.59	$43,321	$393,144,000

State Facilities Exposure. The state contains 3,327[77] state-owned buildings valued at $5.6 billion in building values.[78]

[77] 3332 Total State Owned Buildings; 6 are outside of spatial boundaries
[78] Based on state facility data provided by DCS in 2012, supplemented by Connecticut Open Source Building values from August 2016

Table 2-50 provides a breakdown of the number of state-owned buildings within the SFHA by county. A total of 192 state-owned buildings (just under 6% of the total number of state-owned buildings) are located within the mapped 100-year floodplain. There are a total of 127 (under 4% of the total number of state-owned buildings) state-owned buildings located within the 500 year floodplain.

There are 1,536 (46% of the total number of state-owned buildings) state-owned buildings within areas susceptible to erosion. Geospatial data for erosion susceptibility from the 2014 plan update was overlaid with updated state facility data to provide updated numbers for the 2019 plan update.

Table 2-50 summarizes the number of state-owned buildings in erosion susceptible areas by county. Hartford County leads with a total of 583 state-owned buildings in erosion susceptible areas, while New Haven and New London Counties follow with 282 and 244 respectively.

Table 2-50: State Facilities within the 100 and 500-year floodplain and erosion susceptibility areas (count)

County	Total Buildings in 100-year Floodplain	Total Buildings in 500-year Floodplain	Total Buildings in mapped Floodplain	Total Buildings in Erosion Areas
Fairfield	22	28	50	112
Hartford	14	31	45	583
Litchfield	10	5	15	42
Middlesex	10	12	22	108
New Haven	73	28	101	282
New London	42	16	58	244
Tolland	9	2	11	109
Windham	12	5	17	56
Total	192	127	319	1,536

The 192 state owned buildings that fall within the 100-year floodplain have roughly $62 million dollars in building value and $212 million dollars in content value (Table 2-51). The building and content value are significantly underestimated, due to the availability of structure value data and Windham and New London Counties lack of data. By applying a 1.58x multiplier (derived from the additional building value data that was not accessible in a spatial format), the total building value in the 100-year floodplain is nearly $98 million.

Table 2-51: State Facilities within the 100-year Floodplain

County	Total Buildings in 100-year Floodplain	Total Building Value in the 100-year Floodplain	Total Content Value in the 100-year Floodplain
Fairfield	22	$157,240	$17,649,656
Hartford	14	$15,919,748	$89,493,455
Litchfield	10	$3,833,512	$4,110
Middlesex	10	$45,332	$1,018,529
New Haven	73	$40,356,758	$82,694,995
New London	42	N/A	$6,147,318
Tolland	9	$1,728,415	$10,718,593
Windham	12	N/A	$4,615,793
Total	192	$62,041,006	$212,342,448

Critical Facilities Exposure. In order to determine the number of critical facilities within FEMA's SFHA, the critical facility points were intersected with the SFHA layer. This analysis, depicted below in Table 2-52 shows 133 critical facilities throughout the state in the 100-year floodplain. Fairfield County has the most critical facilities within the zone, with a total of 30, while New Haven and Litchfield follow closely behind with 24 and 23 critical facilities respectively.

Specific municipalities have a high number of critical facilities within SFHA. In Fairfield County, Bridgeport has 12 critical facilities intersecting the floodplain. The facilities in Bridgeport at risk include one correctional institution, one fire station, one gas station with a generator, two municipal solid waste facilities, five storage tank farms, two law enforcement agencies. In New Haven County, the City of New Haven has 15 critical facilities in Zone A, including nine storage tank farms, one fire station and two law enforcement facility, two municipal solid waste facilities, and a gas station with a generator.

WPCFs were not intersected with the floodplain boundaries, due to the lack of previous spatial data. Discrepancies between Hazus and State facility data are common due in part to differing definitions of facilities and to which jurisdictions' facilities are counted.

Table 2-52: Critical Facilities in the Special Flood Hazard Area (SFHA).

County	Correctional Institutions	EMS	Fire Stations	Gas Station with Generator	Health Departments	Law Enforcement	Municipal Solid Waste	Storage Tank Farm	Critical Facility Totals
Fairfield	1	5	7	1	1	3	7	5	30
Hartford	0	0	1	0	1	0	10	2	14
Litchfield	0	7	8	1	0	5	3	0	24
Middlesex	0	3	2	0	0	0	1	1	7
New Haven	0	4	5	1	0	2	2	9	23
New London	0	6	6	0	0	3	1	0	16
Tolland	0	2	4	0	0	1	0	0	7
Windham	0	4	3	0	0	2	3	0	12
Totals	1	31	36	3	2	16	27	17	133

Table 2-53 shows the critical facilities within the 500 year floodplain, excluding the 100 year floodplain critical facilities. To determine the number of critical facilities within the 500 year floodplain, the critical facility points were used and intersected with the FEMA 500-year floodplain. There are a total of 127, with Hartford County leading with 31 facilities, and Fairfield and New Haven coming in a close second with 28 facilities a piece.

Table 2-53. Critical Facilities in the 500 year Floodplain by County

County	Correctional Institutions	EMS	Fire Stations	Gas Station with Generator	Health Departments	Law Enforcement	Municipal Solid Waste	Storage Tank Farm	Critical Facility 500-year Floodplain Totals
Fairfield		10	9		2	1	4	2	28
Hartford		5	10			7	9		31
Litchfield		1	2				2		5
Middlesex	1	1	2		2	3	1	2	12
New Haven		5	7	3	1	6	6		28
New London		6	4		1	2	2	1	16
Tolland		1	1						2
Windham		2	2			1			5
Totals	1	31	37	3	6	20	24	5	127

Connecticut has a total of 172 critical facilities within hurricane storm surge zones. In order to determine this number, the buffered critical facilities were intersected with Connecticut's storm surge layer.

Table 2-54 provides totals for each hurricane category and jurisdiction. A Category 1 hurricane has maximum sustained wind speeds of 74-95 miles per hour (mph), Category 2 hurricanes have a maximum sustained wind speed of 96-110 mph, Category 3 hurricanes have a maximum sustained wind speed of 111-130 mph, and Category 4 hurricanes have a maximum sustained wind speed of 131-155 mph.

Fairfield County has the highest number of critical facilities within the storm surge zones. With a Category 1 storm, Bridgeport has five critical facilities in the storm surge, Greenwich has two, Stamford has three, and Norwalk, Fairfield, and Stratford each have one. A category 2 storm would put an additional 23 critical facilities within the storm surge zone: six critical facilities in Bridgeport, eight facilities in Fairfield, two facilities in Greenwich, one facility in Norwalk, three facilities in Stamford, one facility in Stratford, and two facilities in Westport. With a category 3 storm 12 more critical facilities would be at risk: one facility in Bridgeport, five facilities in Stamford, and six facilities in Stratford.

New Haven County has 56 critical facilities within hurricane storm surge zones 1 through 4. The majority of these critical facilities are located in the City of New Haven: a total of 22. Of the 22, 13 are located in Category 1, three in Category 2, five in Category 3, and one in Category 4.

Table 2-54. Critical Facilities in Hurricane Storm Surge Zones

County	Category 1	Category 2	Category 3	Category 4	Total (Cat 1-4)
Fairfield	13	23	12	15	63
Hartford	0	0	0	0	0
Litchfield	0	0	0	0	0
Middlesex	2	2	9	1	14
New Haven	17	8	19	12	56
New London	13	7	9	10	39
Total	45	40	49	38	172

In 2013, FEMA Modeling Task Force (MOTF) provided 1,300 surveyed high water marks from Hurricane Sandy storm surge. This data was used to create depth-grids and Hazus analysis. Results of this analysis found 13 critical facilities within hurricane Sandy storm surge, five schools, six fire stations, and two police stations. These results were not rerun for the purposes of the 2019 Plan Update.

Out of the total 1,940 critical facilities in Connecticut, there are 936 that are located on areas susceptible to erosion. The four areas are: 1) Highly erodible soil and coarse grained erodible surficial materials, 2) Highly erodible soil and finer grained erodible surficial materials, 3) Erodible surficial materials, and 4) Highly erodible soil. A breakdown of the types of critical facilities by county located on these areas is shown in

Table 2-55. The table shows that EMS facilities and Fire Stations are most at risk, totaling 263 and 326 respectively. The counties with the highest number of critical facilities in areas susceptible to erosion are Hartford, New Haven and Fairfield, with 264, 187, and 147 facilities respectively.

Table 2-55: Critical Facility Types in Erosion Susceptibility Areas

County	Correctional Institutions	EMS	Fire Stations	Gas Station with Generator	Health Departments	Law Enforcement	Municipal Solid Waste	Storage Tank Farm	Critical Facility Totals
Fairfield	2	52	49	6	5	16	15	2	147
Hartford	1	57	103	9	16	30	40	8	264
Litchfield	0	15	23	0	1	11	13	0	63
Middlesex	1	13	15	3	5	5	8	0	50
New Haven	3	47	63	15	17	24	17	1	187
New London	1	39	35	5	7	7	12	0	106
Tolland	0	16	17	1	1	3	14	0	52
Windham	0	24	24	2	1	5	11	0	67
Totals	8	263	329	41	53	101	130	11	936

Danbury and Stamford in Fairfield County have the highest number of critical facilities in areas susceptible to erosion with 46 and 41 respectively. There are a significant amount of EMS and Fire Stations within both municipalities.

2.14.2 Assessment of Local Vulnerability and Potential Losses

Counties and jurisdictions face of variety of challenges in terms of flooding, be that coastal or riverine. Flooding continues to be a jurisdictional level issue throughout the state with communities each making an effort to mitigate that numerous threats from variable flooding sources. The vulnerability of state and critical facilities on a jurisdictional and county level is highlighted in Appendix 2. Coastal communities face a larger amount of potential losses due to their exposure to tropical storms and sea level rise.

2.14.3 Changes in Development

Connecticut's population growth has been minimal over the past few years, with very modest to low growth projected in the next few decades. This minimal growth, paired with the State's focus on the risks and inherent vulnerabilities from both coastal and riverine flooding, has resulted in very flood-conscious planning, zoning, and development.

2.14.4 Hazard Ranking

Quantitative risk assessment, to the degree possible, has been completed for flood using the methodology described in the Hazard Analysis and Ranking methodology Section 2.6 of this chapter. Scores for each jurisdiction were calculated based on population, building permits, geographic extent, average score from local plan rankings, average hazard concern, and measures of historical impact including injuries and deaths, property damage, and the number of reported events. The number of impacted critical facilities was also incorporated, and ranked based on the number of facilities impacted in relation to the number of total

critical facilities in Connecticut. As shown in Table 2-56, the composite flood rank has Fairfield and Hartford Counties ranked as high risk; Litchfield, New Haven, and New London Counties as medium-high risk; and Middlesex, Tolland, and Windham Counties as medium risk.

Table 2-56: Hazard Ranking by County for Flood

County	Hazard Concern Rank	Local Plans Hazard Rank	Geographic Extent Rank	Population Density Rank	Building Permits Rank	Facility Intersect Rank	Ann. Events Rank	Ann. Losses Rank	Injury & Death Rank	Composite Ranks
Fairfield	Medium-High	Medium-High	Low	High	High	High	High	High	Low	**High**
Hartford	Medium-High	Medium-High	High	High	High	Medium-Low	High	High	Low	**High**
Litchfield	Medium-High	Medium-High	Medium-Low	Low	Low	High	High	Medium-High	Low	**Medium-High**
Middlesex	Medium-High	Medium-High	Low	Medium-Low	Medium-Low	Medium	High	Medium-Low	Low	**Medium**
New Haven	Medium-High	Medium-High	Low	High	Medium	High	High	Medium-High	Low	**Medium-High**
New London	Medium-High	Medium-High	Low	Medium-Low	Medium-Low	High	High	Medium-High	Low	**Medium-High**
Tolland	Medium-High	Medium-High	Medium-High	Medium-Low	Medium-Low	Low	Medium	Medium	Low	**Medium**
Windham	Medium-High	Medium-High	Medium-High	Medium-Low	Low	Medium-High	Medium	Medium-Low	Low	**Medium**

Connecticut will continue to be at risk for flood events due to the geographic location along the Northeast Atlantic seaboard, abundance of waterways, and future projections by climate change models and studies that project an increase in more intense precipitation events punctuated by periods of drought conditions.[79,80] Published climate change studies discuss an increase in extreme precipitation frequency, and an actual change in precipitation types and intensity throughout the next century. Tools developed by Cornell University, Northeast Regional Climate Center and Natural Resource Conservation Service include interactive data for extreme precipitation and frequency estimates. Using these tools, Hartford and Fairfield counties are have a slightly higher estimate for precipitation extremes, relative to Connecticut.[81]

The Sentinel Monitoring for Climate Change in Long Island Sound Program is a currently collecting, developing and synthesizing SLR products that will be stored on their data

[79] M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson (eds) Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, 2007

[80] Rosenzweig, C., G. Casassa, D.J. Karoly, A. Imeson, C. Liu, A. Menzel, S. Rawlins, T.L. Root, B. Seguin, P. Tryjanowski, 2007: Assessment of observed changes and responses in natural and managed systems. Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson, Eds., Cambridge University Press, Cambridge, UK, 79-131.

[81] Cornell Extreme Precipitation in New York and New England. Version 1.12 Joint project between Northeast Regional Climate Center (NRCC) and Natural Resource Conservation Service (NRCS) http://precip.eas.cornell.edu/ Assessed 8/26/2013.

clearinghouse website.[82] In 2017, the Connecticut Institute for Resilience and Climate Adaptation released localized sea level rise scenarios for the state and recommended that Connecticut plan for the upper end of the likely range of 20in/50cm of sea level rise by 2050.

2.15 Sea Level Rise Hazard Profile

2019 Plan Update Changes

- Expectations of sea level rise from the Connecticut Institute for Resilience & Climate Adaptation
- The hazard profile has been updated to included location, extent, severity, warning time and secondary impacts
- Gage readings from The Center for Operational Oceanographic Products and Services water level stations in Bridgeport and New London
- Local planning and adaptation for sea level rise

2.15.1 Hazard Description

Relative Sea Level Rise (RSLR) presents a hazard that must be considered in long-term land use, development, and critical infrastructure planning within Connecticut. Relative sea level rise is defined as the sea level relative to the level of the continental crust. Relative sea level changes can thus be caused by absolute changes of the sea level and/or by absolute movements of the continental crust. Connecticut has large exposure to the potential impacts of RSLR, with over 618 miles of tidal shoreline on Long Island Sound which includes numerous inlets and significant areas of low elevation.

According to the Intergovernmental Panel on Climate Change's (IPCC) Fifth Assessment Report (AR5) Report, between 1901 and 2010, global mean sea level rose by 0.19 meters, of which the report states with high confidence that roughly 75% of the rise can be attributed to glacier mass loss and ocean thermal expansion from warming.[83] Climate change, including the continued increase in global temperature, is projected to result in an acceleration of observed rates of RSLR. Projections in global increases in sea level by 2100 due to climate change range from 1-2 feet up to 6.6 feet.

The Center for Operational Oceanographic Products and Services (CO-OPS) and its predecessors have gathered oceanographic data along our nation's coasts for over 200 years and have been measuring sea level for over 150 years. Changes in mean sea level (either rise or fall) are computed at 142 long-term water level stations, utilizing a minimum time span of 30 years and averaged by the month to removed outliers, and computes an accurate linear sea level trend. Tide gauge measurements are made with respect to a local fixed reference level on land; therefore, if there is some long-term vertical land motion occurring at that location, the relative MSL trend measured there is a combination of the global sea level rate and the local vertical land motion.[84] CO-OPS calculates the linear trends for two stations in Connecticut, one in Bridgeport and one in New London. These two stations have

[82]Sentinel Monitoring for Climate Change in Long Island Sound Program http://longislandsoundstudy.net/research-monitoring/sentinel-monitoring/
[83] https://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_All_Topics.pdf
[84] https://tidesandcurrents.noaa.gov/sltrends/sltrends.html

registered mean sea level trends of 2.83 mm/year and 2.57 mm/year respectively. The changes are highlighted in Figure 2-20 and Figure 2-21.

Connecticut continues to bolster its commitment to studying and analyzing climate change and sea level rise through investments at the state level in collaborative projects with universities, neighboring states, non-profits, and federal agencies.

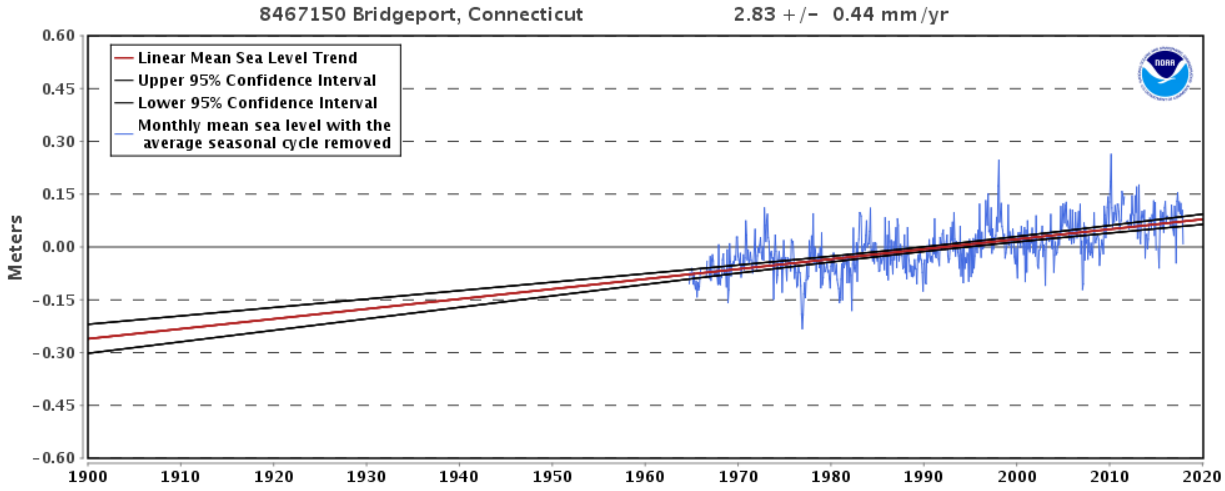

Figure 2-20: The mean sea level trend is 2.83 mm/year with a 95% confidence interval of +/- 0.44 mm/year based on monthly mean sea level data from 1964 to 2016 which is equivalent to a change of 0.93 feet in 100 years

In 2014, Connecticut's Department of Energy & Environmental Protection and the University of Connecticut founded the Connecticut Institute for Resilience & Climate Adaptation (CIRCA). CIRCA's mission is to increase the resilience and sustainability of vulnerable communities along Connecticut's coast an inland waterways to the growing impacts of climate change on the natural, built, and human environment.

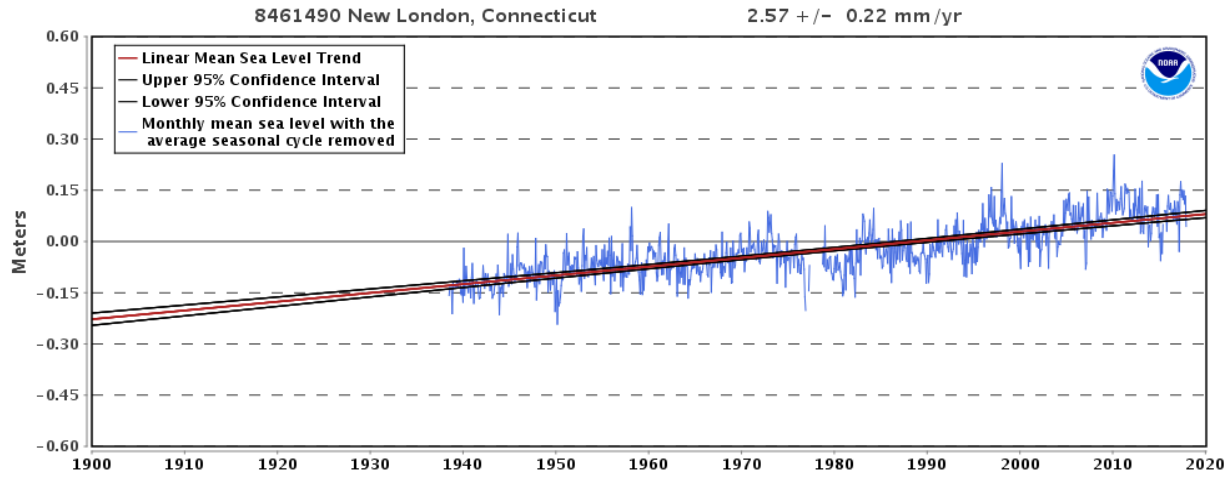

Figure 2-21: The mean sea level trend is 2.57 mm/year with a 95% confidence interval of +/- 0.22 mm/year based on monthly mean sea level data from 1938 to 2016 which is equivalent to a change of 0.84 feet in 100 years

In October 2017, CIRCA released the local sea level rise scenarios for Connecticut in a public meeting, and recommended that the State plan for 50cm (20 inches) of sea level rise by 2050.[85] Furthermore, they noted that the sea level will most likely continue to rise above this level in the future. Figure 2-22 shows Connecticut SLR Projections based on local tide gage observations model simulations near Long Island Sound.

[85] https://circa.uconn.edu/wp-content/uploads/sites/1618/2017/10/Coastal-Flood-Risk-in-CT-ODonnell.pdf

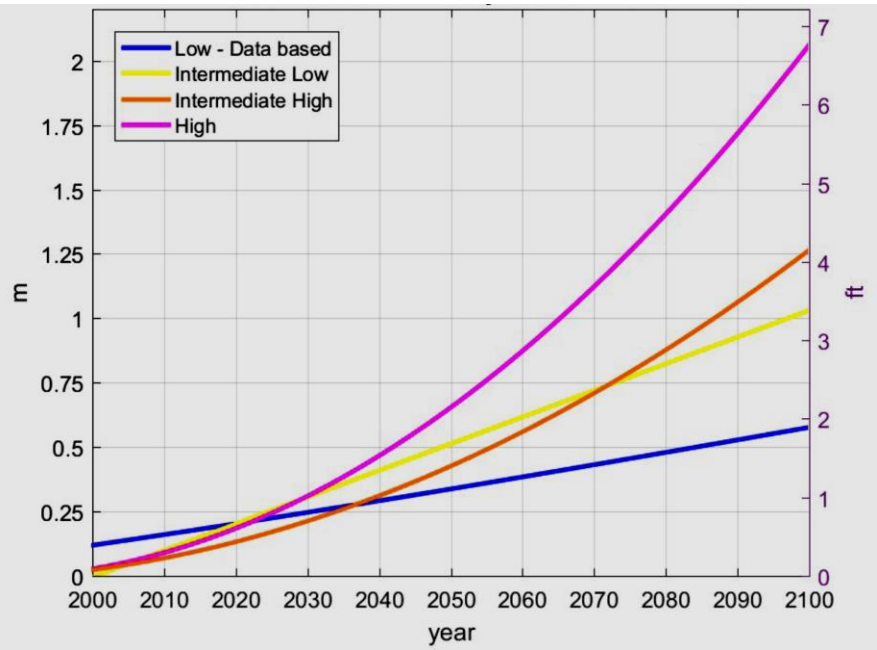

Figure 2-22: Connecticut SLR Projections; Sea Level Rise Projections based on local tide gage observations (blue), the IPCC 2013 RCP 4.5 model simulations near Long Island Sound (yellow line), the semi-empirical model predictions are in orange and the magenta shows the ice mass balance projections

The State is also part of the Climate Change and Sentinel Monitoring Program which utilizes a multidisciplinary scientific approach to provide early warning of climate change impacts to Long Island Sound ecosystems, species, and processes to facilitate appropriate and timely management decisions and adaptation responses. The program proved a deeply successful collaborative project with a number of partners, and has been scaled up for the entire Northeast and Gulf of Maine region through the joint Ecosystem Heath Committee of Northeast Regional Ocean Council (NROC) and Northeast Regional Association of Coastal and Ocean Observing Systems (NERACOOS). The integrated Sentinel Monitoring program allows not only Connecticut, but the entire region to combine efforts to support key monitoring for discernible climate signals and impacts, as well as inform adaptation strategies to keep our ocean and coastal resources as healthy as possible. Data from these efforts are available on their databases, which capture information (metadata) about data sources that could be used to detect changes in the environment due to climate change.

Readers are referred to:

http://www.ct.gov/deep/cwp/view.asp?a=4423&q=521742&ampdeepNav_GID=2121 for reports and detailed information on actions to date.

2.15.2 Location

Sea level rise is mostly contained within the coastal communities along the State's eastern seaboard. According to NOAA, Connecticut has 618 miles of coastline bordering Long Island Sound and the Atlantic Ocean. This coastal area includes four counties and 24 municipalities. Municipalities along waterways that drain into the Sound are also at risk as is shown in the figures below.

2.15.3 Extent

The extent of sea level rise, while mostly contained amongst coastal communities, has potential detrimental impacts to more inland communities as the rising sea levels pushes flooding up waterways and impacts the water sources, water tables, and water related infrastructure. As of now, the extent of sea level rise has yet to be definitively determined, and numerous factors will play a role in inundation. Figure 2-23 below shows what the Connecticut coastline would look like with an additional one foot and an additional six feet of sea level rise. Figure 2-24 and Figure 2-25 provide more detailed maps of these projections. Bridgeport and New London were chosen to illustrate localized sea level rise projections. Based on sea level rise projections, CIRCA recommends that the State of Connecticut prepares for 20 inches of sea level rise by 2050.

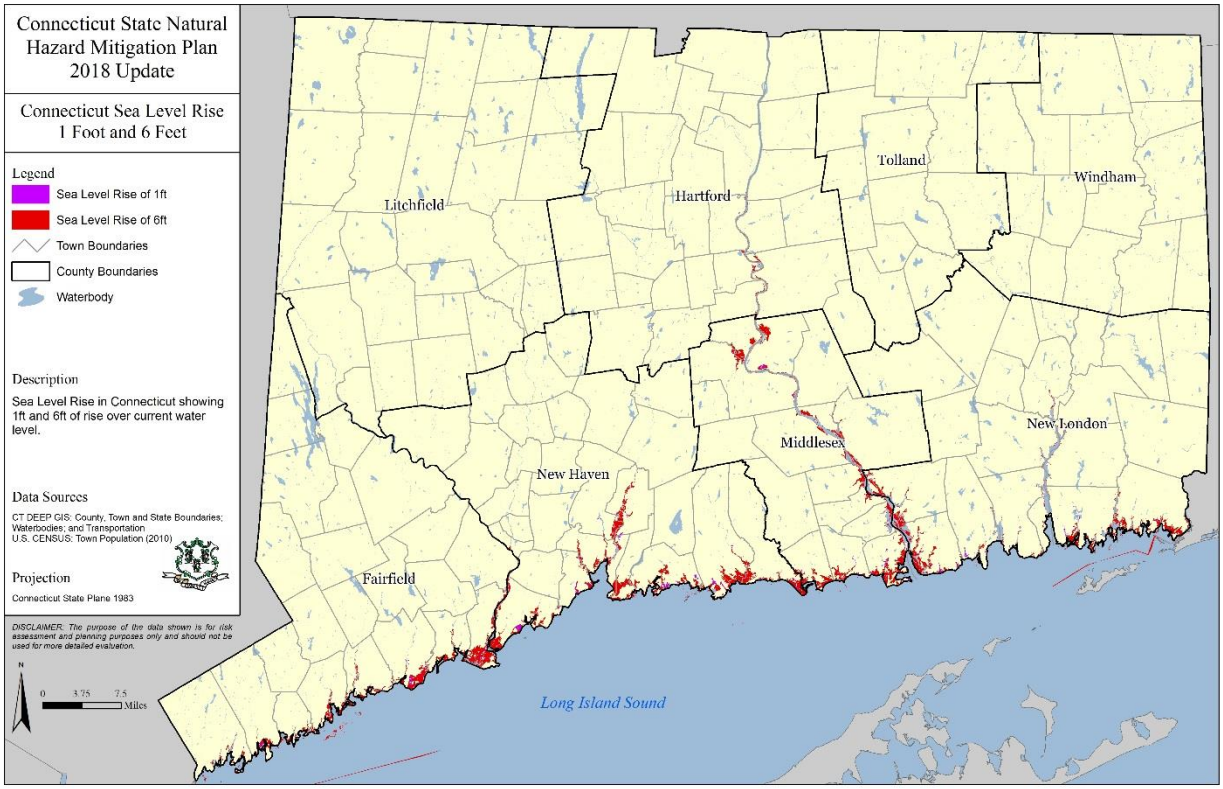

Figure 2-23: Potential Sea Level Rise on Connecticut's Coast (1ft, 6ft)

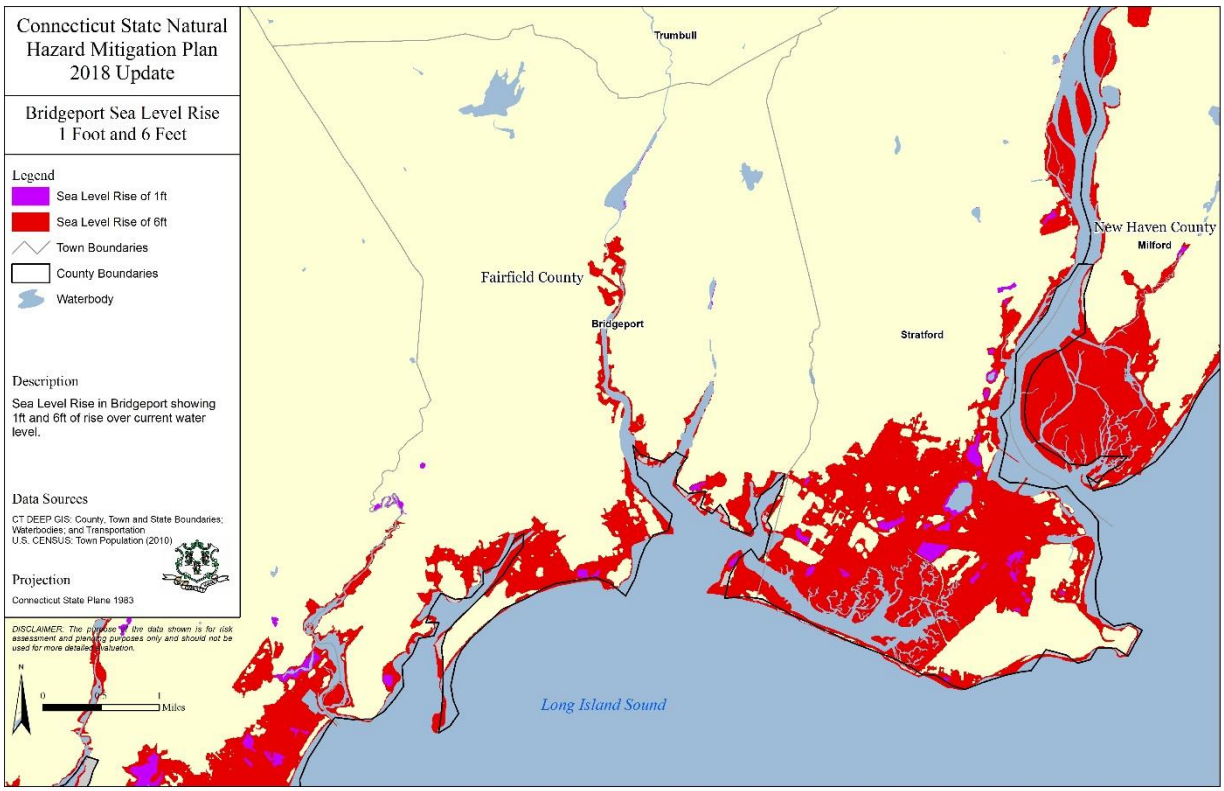

Figure 2-24: Potential Sea Level Rise in Bridgeport (1ft, 6ft)

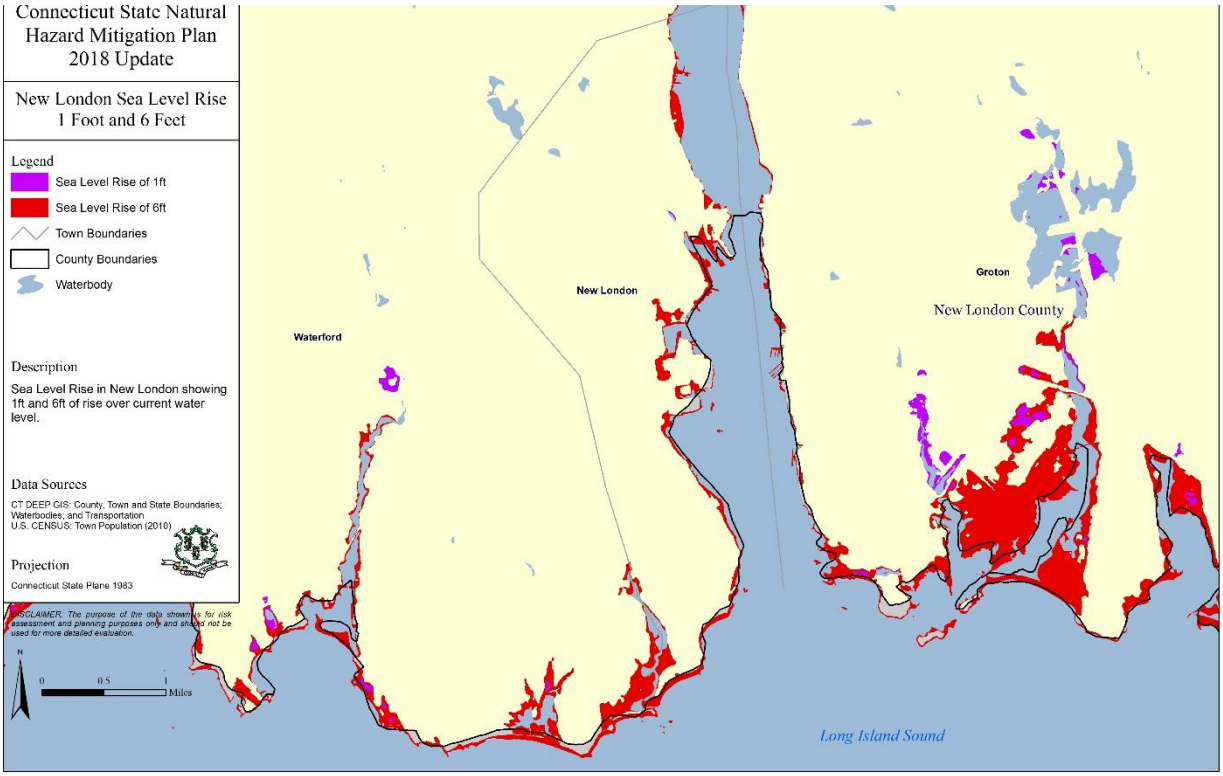

Figure 2-25: Potential Sea Level Rise in New London (1ft, 6ft)

2.15.4 Primary and Secondary Impacts

The severity of sea level rise, and the extensive secondary impacts rising seas could bring to the state of Connecticut, are wide ranging and dependent on a number of interrelated factors including greenhouse gas emissions, varying ocean temperatures, land subsidence along the coast, coastal erosion due to severe storms, as well as resilience and mitigation measures that the State has and continues to implement. Only time will be an indicator of the severity of the threat, but projections show that the impact will be severe if average global temperatures and average ocean temperatures continue to increase.

Two of the largest secondary impacts of SLR include the increased threat of coastal flooding as well as coastal erosion. Rising sea level erodes wetlands and beaches and increases damage from coastal storms. Tidal wetlands are inherently vulnerable, due to their low elevations, and spatial constraints in the form of coastal development prevents them from migrating inland onto higher ground.[86] Shoreline development prevents wetlands, and the vital ecosystems which they contain, from migrating inland to higher ground.

Secondary impacts such as compromised sources of drinking water, threatened wastewater treatment and sewage collection systems, and reduced hydraulic capacities, all have the potential to affect residents and communities along the coast of Connecticut. Most of the agricultural features, which the State analyzed in 2011, will also be extensively impacted. Shellfish production was included among top five most imperiled agricultural planning areas or features in Connecticut.[87]

The infrastructure items most likely to be impacted by SLR are coastal flood control and protection infrastructure such as dams, levees, berms and seawalls. In addition, vital the built environment including roads, bridges, utilities, and critical facilities will also be increasingly vulnerable.

The natural resources at the highest risk include cold water streams, tidal marshes, open water marine, beaches and dunes, freshwater wetlands, offshore islands, major rivers, and forested swamps. The degree of impact will vary, but likely changes include conversion of rare habitat types, loss and/or replacement of critical species dependent on select habitats, and the increased susceptibility of habitats to other on-going threats. Severity

The severity of sea level rise, and the extensive secondary impacts rising seas could bring to the state of Connecticut, are wide ranging dependent on a number of interrelated factors including greenhouse gas emissions, varying ocean temperatures, land subsidence along the coast, coastal erosion due to severe storms, as well as resilience and mitigation measure implemented. Only time will be an indicator of the severity of the threat, but projections show that the impact will be severe if greenhouse gas emissions continue to warm ocean temperatures.

[86] https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/climate-change-ct.pdf
[87] http://www.ct.gov/deep/cwp/view.asp?a=2705&q=475764&deepNav_GID=2022

2.15.5 Warning Time

The warning time for sea level rise has been, and will continue to be, extensive. Sea level rise is expected to occur gradually over time, though the near-term impacts will vary depending on severity.

2.15.6 Previous Occurrences and Losses

Connecticut has experienced eight inches of sea level rise since the mid-1800's, much of which is fairly unnoticeable due to the changing daily tides.[88] Though this rise is not so visible to the naked eye, combined with the effects of climate change on changing weather patterns, increased coastal flooding has occurred along the states shorelines during storms such as Hurricane Sandy. The gradual rising level of sea, will continue to be visible during hurricanes and storms, as well as through the erosion of beaches and coastal land mass.

2.15.7 Probability of Future Events

It is difficult to assign quantitative probabilities to projections of sea level increases. Climate planning is being completed in an adaptive approach to allow for best available science to be continually updated. No widely accepted method is currently available for probabilistic projections at the regional or local level. Multiple scenarios allows for experts and decision makers to consider multiple future conditions and develop responses based on the information that may reduce future impacts and vulnerabilities.[89] While the science clearly indicates that SLR is occurring, using the probability range applied to the other hazards in this plan, Connecticut has a medium-low probability of future SLR events.

[88] https://circa.uconn.edu/sea-level-rise/
[89] Parris, A., P. Bromirski, V. Burkett, D. Cayan, M. Culver, J. Hall, R. Horton, K. Knuuti, R. Moss, J. Obeysekera, A. Sallenger, and J. Weiss. 2012. Global Sea Level Rise Scenarios for the US National Climate Assessment. NOAA Tech Memo OAR CPO-1. 37 pp.

Table 2-57 are based on four estimates of global SLR that reflect different degrees of ocean warming and ice sheet loss ranging from 0.2 meters (8 inches) to 2.0 meters (6.6 feet) by 2100.

These scenarios provide a set of plausible trajectories of global mean SLR for use in assessing vulnerability, impacts, and adaptation strategies. None of these scenarios should be used in isolation, and experts and coastal managers should factor in locally and regionally specific information on climatic, physical, ecological, and biological processes and on the culture and economy of coastal communities.[90]

[90] Parris, A., P. Bromirski, V. Burkett, D. Cayan, M. Culver, J. Hall, R. Horton, K. Knuuti, R. Moss, J. Obeysekera, A. Sallenger, and J. Weiss. 2012. Global Sea Level Rise Scenarios for the US National Climate Assessment. NOAA Tech Memo OAR CPO-1. 37 pp.

Table 2-57: Global SLR Scenarios. *Using mean sea level in 1992 as a starting point

Scenario	SLR by 2100 (m)*	SLR by 2100 (ft)*
Highest	2.0	6.6
Intermediate-High	1.2	3.9
Intermediate-Low	0.5	1.6
Lowest	0.2	0.7

2.15.8 Climate Change Impacts

Sea level has been rising since the end of the last ice age, but the rate of change has been greater in the in the 19th and 20th centuries, much of which has been attributed to anthropogenic influence.[91],[92] Sea level rise is a complex problem, but the future impacts will be influenced by two primary factors: thermal expansion of water in the ocean and the melting of land-based ice, much of which is contained in ice sheets in Greenland and the Antarctic.[93] These two factors are accelerated by the observed increase in global average temperatures since the mid-20th century, which is very likely due to the observed increase in anthropogenic greenhouse gas concentrations.[94] As the oceans warm and expand, and the ice sheets continue to melt, sea level rise will continue to be seen in coastal communities around the world, within the United States, and on the coast of Connecticut.

2.16 Sea Level Rise Vulnerability Assessment

2.16.1 Assessment of State Vulnerability and Potential Losses

RSLR hazard layers that represent inundation extents for generalized RSLR scenarios of 0.0, 1.0, 2.0, 3.0, 4.0, 5.0, and 6.0 feet, relative to mean sea level and intersected with the critical and state-owned facility geospatial database. Reported values represent exposed assets in the inundation range of the hazard layer. Occurrence of a higher range scenario would accumulate risk in a step-wise fashion on top of a lower range scenario.

Exposed state-owned and critical facilities and exposed asset value were tabulated by county. Counties with no exposure were excluded from reporting. Counts of State Owned and Critical facilities are reported in Table 2-58 and Table 2-59 below:

[91] http://www.ct.gov/deep/cwp/view.asp?a=2705&q=475764&deepNav_GID=2022
[92] https://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf
[93] https://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf
[94] https://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_full_report.pdf

Table 2-58: State Facilities intersection with RSLR Scenarios

County	6' SLR	5' SLR	4' SLR	3' SLR	2' SLR	1' SLR
Fairfield	5	3	0	0	0	0
Middlesex	5	4	0	0	0	0
New Haven	38	15	4	3	3	1
New London	12	5	1	1	1	1

Table 2-59: Critical Facilities intersection with RSLR Scenarios

County	Facility Type	6' SLR	5' SLR	4' SLR	3' SLR	2' SLR	1' SLR
Fairfield	Law Enforcement	2	1	0	0	0	0
	EMS	2	2	0	0	0	0
	Fire Station	2	2	0	0	0	0
	Municipal Solid Waste	6	4	0	0	0	0
	Storage Tank Farm	5	3	0	0	0	0
New Haven	EMS	1	0	0	0	0	0
	Fire Station	2	1	0	0	0	0
	Storage Tank Farm	7	6	2	0	0	0
New London	Law Enforcement	1	1	0	0	0	0
	EMS	2	2	0	0	0	0
	Fire Station	2	2	0	0	0	0
	Storage Tank Farm	1	1	0	0	0	0

2.16.2 Assessment of Local Vulnerability and Potential Losses

Vulnerability from sea level rise is very much a local issue, as sea level rise affects only those communities that border the coast. The impacts of sea level rise are variable and dependent on a number of factors such as planning, development, mitigation, and resilience initiatives – in tandem with climate variation and greenhouse gas emissions. Potential losses will come from economic impacts, devalued real-estate, the displacement of communities and residents, with socio-economically disadvantaged groups being impacted

the greatest. The State and communities that border the coast will be forced to continue to devote funds to study, research, and implement interventions in Connecticut's ocean front communities. Only time will tell the full impacts that sea level rise will have on the coastal communities in Connecticut in both the near-term, and long-term future, but current research indicates significant vulnerability at the municipal level with very little chance of abatement or relief from the encroaching oceanfront. A detailed breakdown of sea level rise vulnerability analysis by municipality can be found Appendix 2.

2.16.3 Changes in Development

Coastal management in Connecticut is a comprehensive, cooperative program that functions at all levels of government. Connecticut's Coastal Management Program is administered by DEEP and is approved by NOAA under the federal Coastal Zone Management Act. The Coastal Management Program has worked with many of our state's urban communities on redevelopment projects to reclaim their once-active waterfronts. Central too many of these efforts is the revitalization of developed shorefronts to accommodate active water-dependent uses such as waterborne commerce, commercial and recreational fishing, boating and public access.[95] While many of these coastal areas are being redeveloped for greater utilization, Connecticut's overall low population growth and limited expansion of building permits, indicates that very little new construction is taking place in vulnerable areas along the coast line. Despite this, there is a continuing trend of tear-down and rebuilding of coastal homes after severe storms. These rebuilt home will be increasingly vulnerable to sea level rise.

2.16.4 Hazard Ranking

Quantitative risk assessment, to the degree possible, has been completed for sea level rise using the methodology described in the Hazard Analysis and Ranking methodology Section 2.6 of this chapter. Scores for each jurisdiction were calculated based on population, building permits, geographic extent, average score from local plan rankings, average hazard concern, and measures of historical impact including injuries and deaths, property damage, and the number of reported events. The number of impacted critical facilities was also incorporated, and ranked based on the number of facilities impacted in relation to the number of total critical facilities in Connecticut. As shown in

[95] http://www.ct.gov/deep/cwp/view.asp?a=2705&q=323536&depNav_GID=1622

Table 2-60, the composite sea level rise rank has New Haven ranked as high risk; Fairfield, Middlesex, and New London Counties as medium-high risk; Hartford County as medium-low risk; and Litchfield, Tolland, and Windham Counties as low risk.

Table 2-60: Hazard Ranking by County for Sea Level Rise

County	Hazard Concern Rank	Local Plans Hazard Rank	Geographic Extent Rank	Population Density Rank	Building Permits Rank	Facility Intersect Rank	Ann. Events Rank	Ann. Losses Rank	Injury & Death Rank	Composite Ranks
Fairfield	Medium	High	Medium	High	High	Medium-High	High	Low	Low	**Medium-High**
Hartford	Medium	High	Medium-Low	High	High	Low	Low	Low	Low	**Medium-Low**
Litchfield	Medium	High	Low	Low	Low	Low	Low	Low	Low	**Low**
Middlesex	Medium	High	High	Medium-Low	Medium-Low	Medium-Low	High	Low	Low	**Medium-High**
New Haven	Medium	High	Medium-High	High	Medium	High	High	Low	Low	**High**
New London	Medium	High	Medium-High	Medium-Low	Medium-Low	Medium	High	Low	Low	**Medium-High**
Tolland	Medium	High	Low	Medium-Low	Medium-Low	Low	Low	Low	Low	**Low**
Windham	Medium	High	Low	Medium-Low	Low	Low	Low	Low	Low	**Low**

2.17 Earthquake Hazard Profile

2019 Plan Update Changes

- Updated the Connecticut seismic hazard map
- Updated the Northeast Seismicity graph
- Updated the Earthquake epicenters near Connecticut (1976– 2016) map
- Added Climate Change Impacts, Primary and Secondary Impacts, Extent, and Severity
- Updated loss estimates for earthquake scenarios
- Updated hazard rankings and risk assessments

2.17.1 Hazard Description

An earthquake, also known as a seismic event, is a shaking of the ground caused by the sudden movement of large sections (tectonic plates) of the earth's lithosphere. The lithosphere is made up of the Earth's crust, which ranges in size from about 22 miles thick for continents to about five miles thick for the oceans, and a portion of the upper mantle which is composed of solidified magma. The edges of the tectonic plates are marked by faults. Most earthquakes occur along the fault lines when the plates slide past or collide against each other. This movement sends out seismic waves that may be powerful enough to alter the surface of the Earth, thrusting up mountains and opening great cracks in the

ground, and cause great damage, collapse of buildings and other man-made structures, broken power and gas lines (and the consequent fires), landslides, snow avalanches, tsunamis (giant sea waves) and volcanic eruptions.

The magnitude of an earthquake is a measure of the energy released as seismic waves from the focus of an earthquake.[96] Each earthquake has a magnitude assigned to it. The magnitudes of earthquakes which occur east of the Rocky Mountains and into Canada are often determined by the use of local or regional magnitude scales. Many earthquakes in Northeast earthquake catalogs calculate magnitude for such events based on the Coda-length magnitude scale or the Nuttli magnitude scale and use the Richter Scale as a default magnitude scale.[97] The Richter Scale is used to express the magnitude of an earthquake in terms of energy released, not in terms of its impact. An earthquake in a densely populated area which results in many deaths and considerable damage may have the same magnitude as a shock in a remote area that has no direct impact. Large-magnitude earthquakes that occur beneath the oceans may not even be felt by humans.

The effect of an earthquake on the Earth's surface is called the intensity. Once a magnitude for an earthquake event has been calculated using one of several scientifically accepted formulas, it can then be connected to an intensity measurement. Intensity scales consist of a series of certain key responses such as people awakening, movement of furniture, damage to chimneys, and, finally, total destruction. Although numerous intensity scales have been developed over the last several hundred years to evaluate the effects of earthquakes, the one currently used in the United States is the Modified Mercalli Intensity (MMI) Scale. Further information on the MMI Scale is detailed in Section 1.17.3 below.

Surficial earth materials behave differently in response to seismic activity. Unconsolidated materials such as sand and artificial fill can amplify the shaking associated with an earthquake. In addition, artificial fill material has the potential for liquefaction. Liquefaction is a phenomenon in which the strength and stiffness of a soil are reduced by earthquake shaking or other rapid loading. It occurs in soils at or near saturation, especially the finer textured soils. When liquefaction occurs, the strength of the soil decreases and the ability of soil to support building foundations and bridges is reduced. Increased shaking and liquefaction can lead to greater damage to buildings and other structures, and a greater loss of life.

Areas of fine sand and clay (glacial lake bottom deposits) are also vulnerable, and have been classified as having the highest risk for seismic wave amplification (NEHRP). The distribution of these glacial materials has been mapped on the Surficial Materials Map of Connecticut[98] and The Quaternary Geologic Map of Connecticut and The Long Island Sound Basin[99]. New England State Geologists have promoted the use of surficial geology in Hazus

[96] Source of information is USGS's web page entitled *Magnitudes* located at http://neic.usgs.gov/neis/epic/code_magnitude.html
[97] LCSN and Weston Observatory earthquake logs, being the most comprehensive for the Northeast utilize Nuttli or Coda-length magnitudes scale as the primary scale and Richter as the default scale.
[98] Stone, J.R., Schafer, J.P., London, E.H. and Thompson, W.B., 1992. Surficial Materials Map of Connecticut. U.S. Geological Survey Special Map, 2 sheets, scale 1:125,000
[99] Stone, Janet Radway; Schafer, John P.; London, Elizabeth Haley; DiGiacomo-Cohen, Mary L.; Lewis, Ralph S.; Thompson, Woodrow B., 2005. Quaternary Geologic Map of Connecticut and Long Island Sound Basin. Geological Survey (U.S.) Scientific Investigations Map 2784, 5 maps on 2 sheets : col. ; 106 x 136 cm. and 34 x 42 cm., sheets 117 x 168 cm. and 99 x 139 cm., folded in envelope 30 x 23 cm. + 1 pamphlet (iv, 72 p. : ill., map ; 28 cm.); Includes text, 2 colored cross sections, 3 diagrams, and 8 colored photos [Link]

loss estimations. Based on the distribution of surficial materials, a pilot NEHRP seismic risk classification has been prepared for Hartford County. "Although the areas of highest seismic event frequency are to the southwest and southeast, the Hartford County area is largely underlain by glacial lake clays and fine sands that have a high liquefaction potential." [100] Targeted geophysical surveys of these areas and similar areas statewide have the potential to better define the seismic risk and potential for ground failure. Figure 2-26 depicts Connecticut's surficial materials on the landscape. Figure 2-27 below depicts the Quaternary Geology of Connecticut.

Areas of steep slopes can collapse during an earthquake, creating landslides. Seismic activity can also break utility lines, such as water mains, electric and telephone lines, and storm water management systems. Dam failures also pose a significant threat to developed areas during an earthquake. Structures in these areas are at increased risk from earthquakes due to amplification of seismic energy and/or collapse.

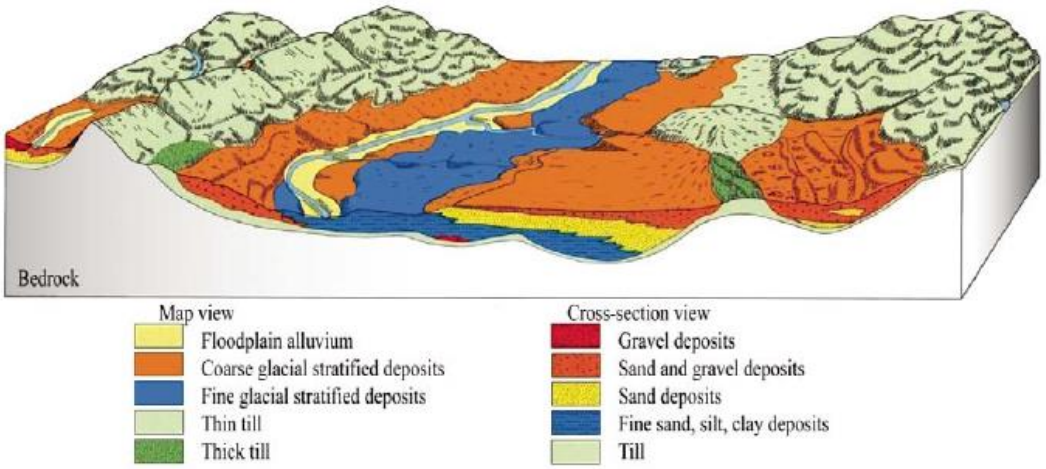

Figure 2-26: Block Diagram Depicting Connecticut Surficial Materials on the Landscape

The best mitigation for future development in areas of sandy or filled material may be application of the most stringent building codes, or possibly the prohibition of certain types of new construction.

2.17.2 Location

Although California is widely known for its seismic activity, earthquakes, mostly with a magnitude of < 3.0, occur at a high frequency within the Northeast United States.[101] In fact, the Northeast States Emergency Consortium notes that from 1538 to 1989 1,215 earthquakes occurred in New England.[102]

[100] Laurence R. Becker, Steven P. Patriarco, Robert G. Marvinney, Margaret A. Thomas, Stephen B. Mabee, and Edward S. Fratto, Improving seismic hazard assessment in New England through the use of surficial geologic maps and expert analysis *Geological Society of America Special Papers, 2013, 493, p. 221-242, doi:10.1130/2012.2493(11)*

[101] Source of information is a paper entitled, *Why Does the Earth Quake in New England*, written by Alan L. Kafka and located on Boston College's Weston Observatory website

[102] Source: NESEC website: www.nesec.org/hazards/earthquakes.cfm

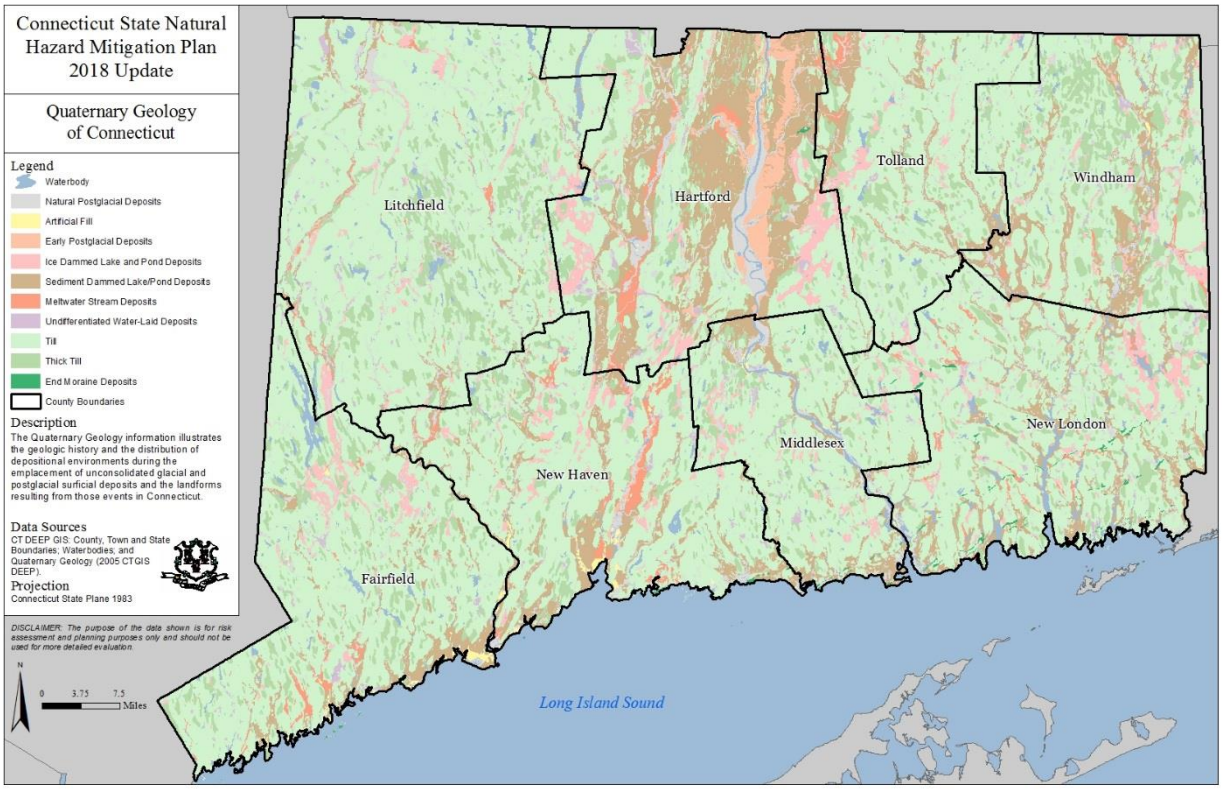

Figure 2-27: Map of Quaternary Geology in Connecticut

Earthquakes that occur within the northeastern United States are intraplate earthquakes, meaning that the earthquake occurs not along the faults between plates, but within plate boundaries.[103] The earthquake process itself is complex in plate interiors. The quaternary geology of Connecticut is shown in Figure 2-27. There are two important points that can affect earthquake prediction in these areas (i.e., the where and when an earthquake will occur):

- There is no obvious relationship between earthquakes and geologically mapped faults in most intraplate areas; and
- It is not at all clear whether faults mapped at the earth's surface in the Northeast are the same faults along which the earthquakes are occurring.

The current accepted theory to explain the occurrence of earthquakes in the Northeast is that ancient zones of weakness are being reactivated due to present day stress. The last major episode of geologic activity to affect New England bedrock occurred during the Mesozoic Era, approximately 100 million years ago.[104] The remains of Mesozoic rifting can be found in a series of ancient continental rift zones in the Northeast, including the Hartford rift basin (located in central Connecticut and central Massachusetts), and the

[103] Source: see Kafka's paper *Why Does the Earth Quake in New England?*, located at Weston Observatory's website. Intraplate means within plates, in contrast to along plate boundaries.
[104] Source: see Kafka's paper *Why Does the Earth Quake in New England?*, located at Weston Observatory's website.

Newark rift basin (located in the greater New York area).[105] Figure 2-28 is the Connecticut seismic hazard map for 2% in 50-years PGA.

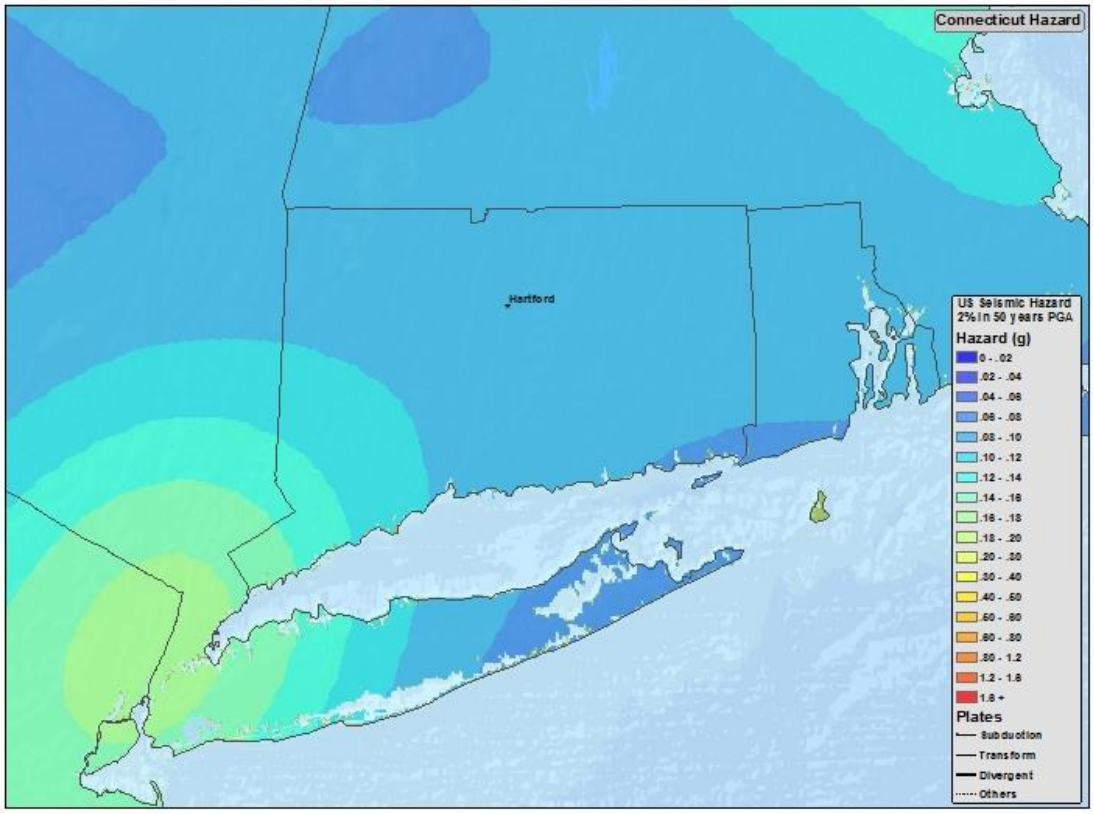

Figure 2-28: Connecticut Seismic Hazard Map. Source USGS

Figure 2-29 shows recent seismic activity of the Northeast between 1975 and 2016.[106] Most earthquakes have a calculated magnitude of less than 3.0. This map also shows clusters of earthquakes occurring around the Portland-Haddam-East Haddam area, as well as the New Haven –Greenwich area of Connecticut.

[105] Source: see Kafka's paper *Why Does the Earth Quake in New England?*, located at Weston Observatory's website.
[106] Map downloaded from the Weston Observatory website: www.bc.edu/research/westonobservatory/.

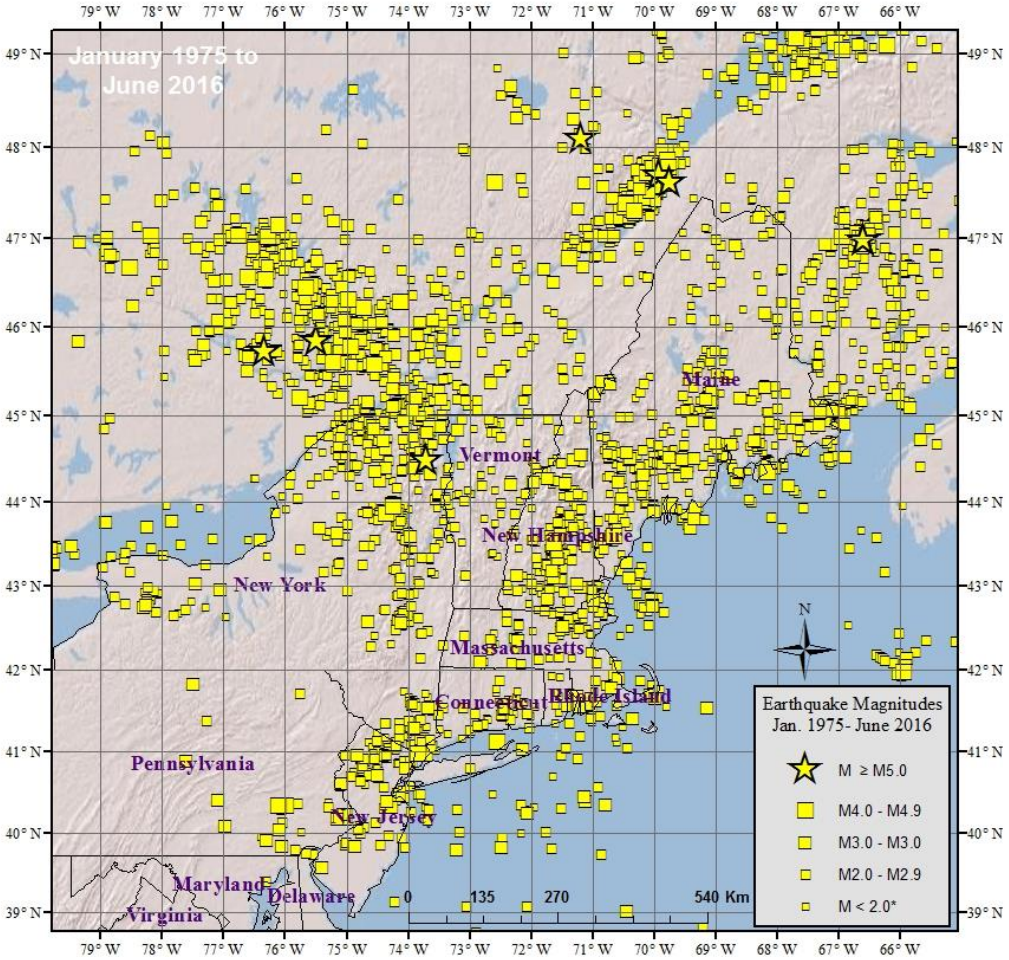

Figure 2-29: Northeast Seismicity 1975-2016, Weston Observatory

A number of seismic stations have been established within New England and Canada. There are four seismic stations currently operating in Connecticut. Two stations are operated and maintained by the Weston Observatory, and are part of the observatory's New England seismic network. Two stations are operated and maintained by the Lamont-Doherty Cooperative Seismographic Network.[107]

2.17.3 Extent

The potential effects of an earthquake are dependent on the magnitude of the event, the intensity (distance from the epicenter), and the type of geologic material in the area:

- Magnitude is a measure of the strength of an earthquake or energy released by it. Magnitude is measured by a device known as a seismograph. The scale used to measure earthquake magnitude was originally defined by Charles Richter in the 1930s, and is commonly referred to as the Richter scale, which assigns a magnitude number to quantify the strength of an earthquake. Many earthquakes in Northeast

[107] More information for both network can be found at the following websites: Lamont –Doherty Cooperative Seismographic Network – http://www.1deo.columbia.edu/LCSN/intro.html; and the Weston Observatory – http://www.bc.edu/research/westonobservatory/about/aboutwo.html.

earthquake catalogs calculate magnitude for such events based on the Coda-length magnitude scale or the Nuttli magnitude scale and use the Richter Scale as a default magnitude scale.[108] Nuttli is the most commonly used magnitude scale in the Northeast. It is computed from the vertical component 1-second Lg seismic-waves (short period surface waves).[109] The Richter Scale is used to express the magnitude of an earthquake in terms of energy released, not in terms of its impact.

- Intensity is a measure of the effects of an earthquake at a particular place on people, structures, or the land itself. Earthquake intensity is most commonly measured in the United States using the Modified Mercalli (MMI) scale. The intensity at a point depends not only upon the strength of the earthquake, but also upon the distance from the earthquake to the point and the local geology at that point. Further information on the MMI scale is below.

- Peak Ground Acceleration (PGA) is another common measure of earthquake shaking along the earth's surface. PGA expresses acceleration along the earth's surface as a percentage of g, the acceleration due to gravity (32.2 ft. /s2). PGA varies significantly depending on the ground type and the geology of an area.

The Modified Mercalli Intensity (MMI) Scale was developed in 1931 by the American seismologists Harry Wood and Frank Neumann. This scale, composed of 12 increasing levels of intensity that range from imperceptible shaking to catastrophic destruction, is designated by Roman numerals. It does not have a mathematical basis; instead, it is an arbitrary ranking based on observed effects. The MMI value assigned to a specific site after an earthquake has a more meaningful measure of severity to the nonscientist than the magnitude because intensity refers to the effects actually experienced at a particular place.

The lower numbers of the intensity scale deal with the manner in which people feel the earthquake. The higher numbers of the scale are based on observed structural damage. Structural engineers contribute information for assigning intensity values of VIII or above.

[108] LCSN and Weston Observatory earthquake logs, being the most comprehensive for the Northeast utilize Nuttli or Coda-length magnitudes scale as the primary scale and Richter as the default scale.
[109] USGS's web page entitled *Magnitudes*

Table 2-61 shows the connection between computed magnitudes and related intensities of earthquake events. Table 2-62 provides an abbreviated description of each intensity level of the Modified Mercalli Intensity Scale.

Table 2-61: Earthquake Magnitude / Mercalli Intensity Comparison

Richter Magnitude Scale	Typical Maximum Modified Mercalli Intensity
1.0 – 3.0	I
3.0 – 3.9	II - III
4.0 – 4.9	IV - V
5.0 – 5.9	VI - VII
6.0 – 6.9	VII - IX
7.0 or higher	VIII or higher

Table 2-62: Modified Mercalli Intensity Scale

Intensity Level	Description of Effects on People, Structures, or Natural Environment
I	Not felt except by a very few under especially favorable conditions.
II	Felt only by a few persons at rest, especially on upper floors of buildings.
III	Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibrations similar to the passing of a truck. Duration estimated.
IV	Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.
V	Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.
VI	Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight.
VII	Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.
VIII	Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned.
IX	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
X	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent.
XI	Few, if any (masonry) structures remain standing. Bridges destroyed. Rails bent greatly.
XII	Damage total. Lines of sight and level are distorted. Objects thrown into the air.

2.17.4 Primary and Secondary Impacts

Earthquakes can cause damage directly to buildings, infrastructure, and the landscape. Infrastructure systems that can be particularly affected are communication, water, and electricity. In addition, there is significant threat of injury and loss of life as a result of collapsing structures and falling debris.

Strong earthquakes in particular, often trigger secondary effects which have a high loss potential as well and are usually the prime factor for determining whether an earthquake is categorized as a catastrophe. Secondary effects can include landslides (in hilly or mountainous areas), amplification, seismic sea waves (tsunamis), surface rupture, subsidence, fires (from ruptured gas lines and downed utility lines), and liquefaction of soil.

2.17.5 Severity

Although other natural hazards account for greater annual loss in the United States, earthquakes pose the largest risk in terms of sudden loss of life and property. Risk factors that impact the severity and extent of damage include:

- Amount of seismic energy released: The greater the vibrational energy, the greater the chance for destruction.
- Duration of ground movement: This is one of the most important parameters of ground motion for causing damage.
- Depth of the focus, or hypocenter: The shallower the focus (the point of an earthquake's origin within the earth), usually the greater the potential for destructive seismic waves reaching the earth's surface. Even stronger magnitude events with a much greater focus depth typically produce only moderate movement at ground level.
- Distance from epicenter: The potential for damage tends to be greatest near the epicenter (the point on the ground directly above the focus), and decreases away from it.
- Geologic setting: A wide range of foundation materials exhibits a similarly wide range of responses to seismic vibrations. For example, in soft unconsolidated material, earthquake vibrations last longer and develop greater amplitudes, which produce more ground movement, than in areas underlain by hard bedrock. Likewise, areas having active faults are at greater risk.
- Population and building density: In general, risk increases as population and building density increase.
- Types of buildings: Wooden frame structures tend to respond to earthquakes better than do more rigid brick or masonry buildings. Taller buildings are more vulnerable than one- or two-story buildings when located on soft, unconsolidated sediments, but taller buildings tend to be the more stable when on a hard bedrock foundation.
- Time of day: Experience shows there are fewer casualties if an earthquake occurs in late evening or early morning because most people are at home and awake and thus in a good position to respond properly.

All of these factors affect each other and add up to the severity of the earthquake.

2.17.6 Warning Time

The further the distance from an earthquake epicenter, the smaller the impact and the more warning time available. Unfortunately, it is unlikely that adequate warning time will be given. For very large, distant earthquakes there may be 60 seconds of warning time possible. This small warning time is particularly impactful in urban areas, where it takes more than 60 seconds to descend from a many-storied building. For a warning to be effective, it must arrive before the serious shock waves occur, which is rarely possible with current technology.

2.17.7 Previous Occurrences

The USGS National Earthquake Information Center maintains a national database of significant earthquake epicenters. USGS defines significant earthquakes as those that caused deaths, property damage, or geological effects, or that were experienced by populations in the epicentral area.[110] The Weston Observatory maintains the history of earthquakes in Northeast. Past earthquakes which occurred in and near Connecticut are presented in Figure 2-30. The list was compiled from several northeast earthquake catalog files. Several events include:

- The largest earthquake in Connecticut occurred in East Haddam on May 16, 1791. It was estimated to be a VII in intensity.[111] A description of the earthquake and the events that followed states: "It began at 8 o'clock p.m., with two very heavy shocks in quick succession. The first was the most powerful; the earth appeared to undergo very violent convulsions. The stone walls were thrown down, chimneys were untopped, doors, which were latched were thrown open, and a fissure in the ground of several rods in extent was afterwards discovered. Thirty lighter ones followed in a short time, and upwards of one hundred were counted in the course of the night."[112]
- The next moderate earthquake occurred in Hartford in April 1837. This was followed by three subsequent earthquake events in 1840 (a few miles southeast of Hartford), June 1858 (occurred at New Haven), and the June 1875 (which have an estimated intensity level of a V and was felt within a general 2,000 square mile area of Connecticut and Massachusetts).
- A noticeable earthquake occurred in Connecticut on March 11, 2008. It was a 2.0 magnitude with its epicenter three miles northwest of the center of Chester.
- A magnitude 5.0 earthquake struck at the Ontario-Quebec border region of Canada on June 23, 2010. This earthquake did not cause damage in Connecticut but was felt by residents in Hartford and New Haven Counties.

[110] United States Geological Survey, http://www.nationalatlas.gov/mld/quksigx.html (June 2013).
[111] Note: Seismic recorders were not in use until the early 1900's and routine reporting of earthquake activity was not implemented until the 1930's for the Northeast region, hence intensity levels for early earthquakes (prior to 1900's) were based on expert determinations based on damage and activity reports..
[112] Source: USGS, 2009, http://earthquake.usgs.gov/regional/states/connecticut/history.php.

- A magnitude 3.9 earthquake occurred 117 miles southeast of Bridgeport, Connecticut on the morning of November 30, 2010. The quake did not cause damage in Connecticut but was felt by residents along Long Island Sound.
- On June 3, 2011, a 1.7 magnitude earthquake occurred near East Hartford about 3 miles below ground. It was minimal, as many residents believed the shaking to be from nearby road construction.[113]
- A magnitude 5.8 earthquake occurred 38 miles from Richmond, Virginia on August 23, 2011. The quake was felt from Georgia to Maine and reportedly as far west as Chicago. Many residents of Connecticut experienced the swaying and shaking of buildings and furniture during the earthquake although widespread damage was constrained to an area from central Virginia to southern Maryland. According to Cornell University, the August 23 quake was the largest event to occur in the east central United States since instrumental recordings have been available to seismologists.
- On September 8, 2012, a 2.1 magnitude, 4 km deep earthquake occurred near Stamford. Dozens of residents reported feeling the ground move, but no injuries were reported.
- A magnitude 3.3 earthquake occurred about three miles away from Plainfield, 6.5 km below ground on January 12, 2015. Reports differ on the intensity of the earthquake, with MMI values ranging from II to V.

[113] http://articles.courant.com/2011-06-03/community/hc-east-hartford-earthquake-0604-20110603_1_water-heater-gas-line-road-construction

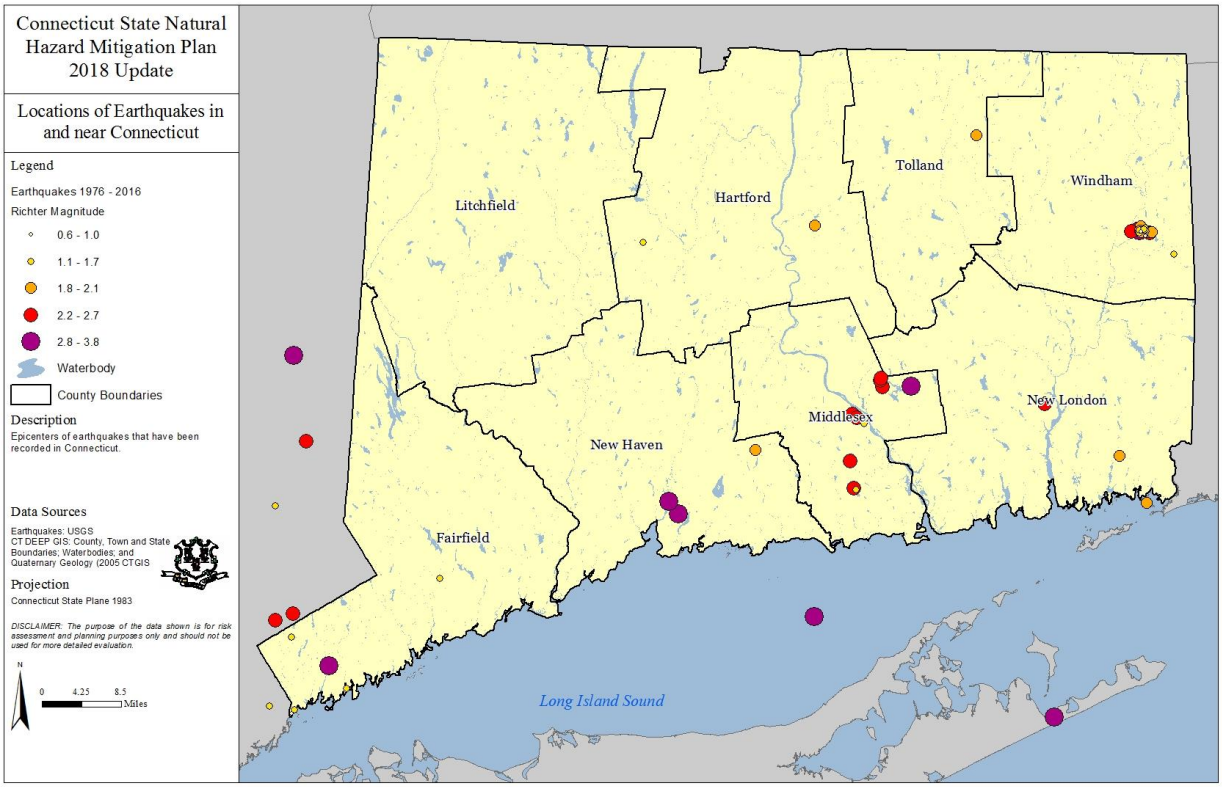

Figure 2-30: Earthquake epicenters near Connecticut (1976– 2016).

FEMA Disaster Declarations

There are no new federally declared disasters related to earthquakes since the 2014 plan update.

2.17.8 Probability of Future Events

Earthquake events do occur in the state, though of much less intensity than elsewhere in the region or on the west coast. Additionally earthquake events are more likely to be felt as a result of an earthquake that occurs in the surrounding region rather than originating within Connecticut. Based on historical information, it is reasonable to assume that Connecticut has a medium-low probability of future earthquake events.

Probabilistic ground motion maps are typically used to assess the magnitude and frequency of seismic events. These maps measure the probability of exceeding a certain ground motion, expressed as percent peak ground acceleration (%PGA), over a specified period of years. The severity of earthquakes is site specific, and is influenced by proximity to the earthquake epicenter and soil type, among other factors. Average PGA, for the 100-year return period, has been used in the hazard ranking as the geographic extent parameter. The average PGA values for the state would result in no felt shaking or potential damage.

Connecticut may be categorized as having a low or moderate risk for an earthquake ≥ 3.5 occurring in the future and a moderate risk of an earthquake ≤ 3.0 occurring in the future. USGS currently ranks Connecticut as 43 out of 50 states for earthquake activity (based on geologic and historical data) and notes that no earthquake with a magnitude of ≥ 3.5 has occurred in Connecticut within at least the last 30 years.[114] As Kafka notes, it is impossible to predict when, where, and what magnitude would be for a future earthquake, especially in New England, due to this geographic area being located in an intraplate area of the United States.[115] However, future probabilities of potential events can be developed given geologic information and historical information on past events for a particular area.

The USGS earthquake hazard map in Figure 2-31 indicates a low probability of an earthquake occurring within Connecticut that would cause substantial damage within a fifty-year time period. The hazard map shows, "the distribution of earthquake shaking levels that have a certain probability of occurring in the United States."[116] For the northeastern area of the United States, USGS suggests the use of either a 2% or 5%/50 year hazard map to provide higher, more realistic probabilities for planning purposes. Depending upon the specific geographic area of Connecticut in question, the earthquake PGA (certain amount of mapped shaking distribution) that has a 2% chance of being exceeded in 50 years has a value between 7 – 15 % of %g (percent of gravity). Kafka notes that it requires more than 100% of the force of gravity to throw objects into the air. This is a relatively low probability since a 2% percent chance of exceedance means there is a 98% chance that the shaking will not exceed the indicated value of %g.

In addition, a series of probability maps were created using the USGS's interactive web-based mapping tools for East Haddam, Portland, and Haddam, and the New Haven to Greenwich area of the state. The maps were created to help analyze the probability of a magnitude ≥ 5.0 (shown as a magnitude ≥ 4.75), and a magnitude ≥ 6.0 earthquake occurring within 50, 100, 250 and 350 year time period. Due to the relative historic infrequency of an earthquake of the selected magnitudes occurring within the state, USGS encourages the use of a longer time period to provide a truer projection of probabilities.

[114] Source: USGS
[115] Source: Kafka, Alan, L. Why Does the Earth Quake in New England.
[116] Sources: USGS and Weston Observatory

Table 2-63 and Table 2-64 present the projected percentages of such earthquake magnitudes occurring within Connecticut. The chance (percent) of a minimum 5.0 earthquake occurring within a 350-year time period (maximum mapped for this plan) is relatively moderate for the New Haven-Greenwich area of Connecticut. This may be a result of the geographic proximity of this area to a Mesozoic rift basin.

Table 2-63: Probability of an earthquake of specific magnitude occurring in the Haddam-East Haddam-Portland area of Connecticut

Timeframe (years)	Equal or Greater Than a 5.0 Quake	Equal or Greater Than a 6.0
50	3.00%	0.30%
100	8.00%	0.50%
250	20.00%	1.50%
350	20.00%	2.00%

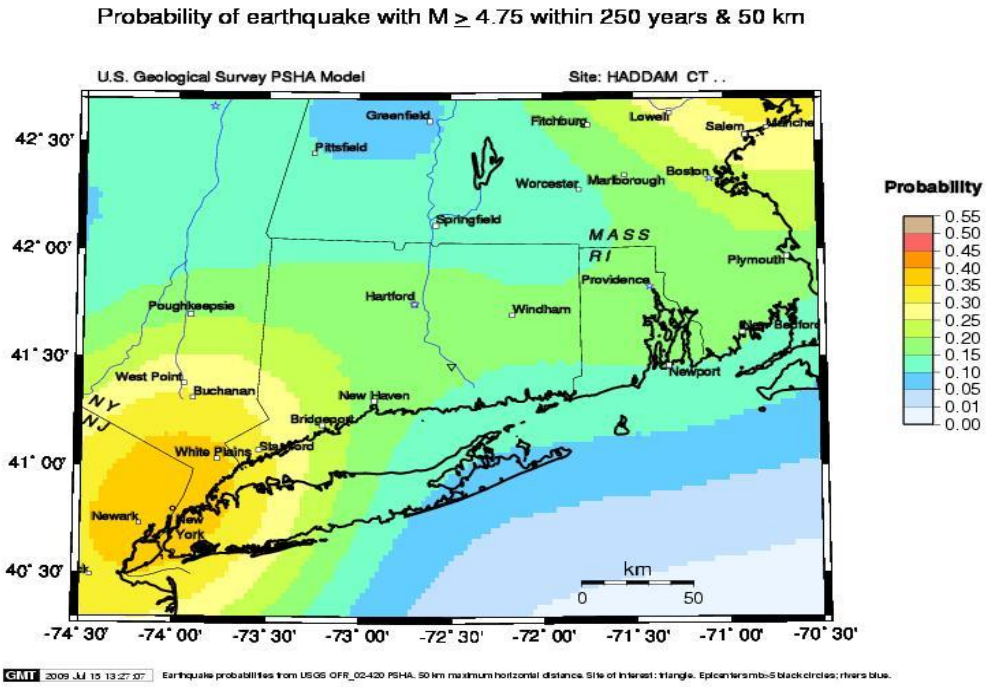

Figure 2-31: Example of Probability Maps Developed for Haddam-East Haddam-Portland and New Haven-Greenwich Areas of Connecticut

Table 2-64: Probability of an Earthquake of Specific Magnitude Occurring in the New Haven-Greenwich Area of Connecticut

Timeframe (years)	Greenwich		Stamford		Bridgeport		New Haven	
	≥ 5.0	≥ 6.0	≥ 5.0	≥ 6.0	≥ 5.0	≥ 6.0	≥ 5.0	≥ 6.0
50	7.50%	0.70%	8.00%	0.70%	5.00%	0.50%	4.00%	0.30%
100	18.00%	1.50%	12.00%	1.00%	10.00%	1.00%	8.00%	0.50%
250	30.00%	3.50%	30.00%	3.50%	20.00%	2.50%	15.00%	1.50%
350	40.00%	5.00%	40.00%	4.50%	30.00%	3.00%	20.00%	2.50%

Based on the historic record of earthquakes and the information collected for this plan, one can make the following conclusion with regards to risk of a future earthquake event occurring in Connecticut:

1. There are geographic areas within the state that have had seismic activity in the past;

2. Although the risk is relatively very low, the long-term probability does exist of an earthquake with a magnitude $\geq$ 5.0 to occur within the state; and

3. Although the probability of an earthquake with a magnitude $\geq$ 5.0 is extremely small (under 1%), based on Connecticut's historical record of earthquake events, it is likely that one or more earthquake(s) with a magnitude $\leq$ 3.0 will occur within the next hundred years.

2.17.9 Climate Change Impacts

Evidence that climate change has an impact on the occurrence or magnitude of earthquakes is currently inconclusive. Some recent research indicates that geologic events such as earthquakes are sensitive to changes on the earth's surface, such as shifts in water or atmospheric pressure. Other scientists have expressed doubts that earthquakes are significantly impacted by climate change.[117]

2.18 Earthquake Vulnerability Assessment

Earthquakes are low probability, high-consequence events. Although earthquakes may occur infrequently they can have devastating impacts. Ground shaking can lead to the collapse of buildings and bridges; disrupt gas, life lines, electric, and phone service. Deaths, injuries, and extensive property damage are possible vulnerabilities from this hazard. Some secondary hazards caused by earthquakes may include fire, hazardous material release, landslides, flash flooding, avalanches, tsunamis, and dam failure. Moderate and even very large earthquakes are inevitable, although very infrequent, in areas of normally low seismic activity. Consequently, buildings in these regions are seldom designed to deal with an earthquake threat; therefore, they are extremely vulnerable.

Most property damage and earthquake-related injuries and deaths are caused by the failure and collapse of structures due to ground shaking. The level of damage depends upon the amplitude and duration of the shaking, which are directly related to the earthquake size, distance from the fault, site, and regional geology. Other damaging earthquake effects include landslides, the down-slope movement of soil and rock (mountain regions and along hillsides), and liquefaction, in which ground soil loses shear strength and the ability to

[117] Pearce, Fred. 2012. Yale Environment 360. *Could a Changing Climate Set Off Volcanoes and Quakes?* https://e360.yale.edu/features/could_a_changing_climate_set_off_volcanoes_and_quakes

support foundation loads. In the case of liquefaction, anything relying on the substrata for support can shift, tilt, rupture, or collapse.

An earthquake risk assessment is difficult because it is challenging to monetize the potential damages accurately. FEMA has developed a software suite, Hazards US (Hazus), for estimating potential losses to natural disasters. The Hazus® earthquake model was utilized to estimate damages and losses to buildings, lifelines, and essential facilities from deterministic (scenario-based) and probabilistic earthquakes. The model which was first developed and released as HAZUS®99 and has continually been updated by FEMA since its release, leverages many of the methodologies for estimating damage and loss from the devastating effects of earthquakes. The update to this section uses 2010 census-based inventory data that comes standard and packaged with the software by state.

Hazus was utilized to perform a variety of earthquake scenarios for the current Plan Update; to include probabilistic scenarios for East Haddam, Haddam, Portland, and Stamford. Noting the unpredictability of earthquakes, these scenarios are in accordance with the recommended scenarios of the State of CT Geologic Survey and offer perspective of earthquake scenarios that the state could potentially experience. The probabilistic scenario is a multi-frequency annual chance scenario that takes into account a range of magnitudes across the entire state and no single epicenter is defined. In contrast, the various scenarios named by specific cities, demonstrate a specific shaking-scenario at a specific epicenter.

The two geographic areas most vulnerable to potential earthquakes in Connecticut are New Haven-Greenwich and Hartford-East Haddam-Haddam-Portland. Most at risk are people who work or live in unreinforced masonry buildings built on filled land or unstable soil.[118] Other population groups who may be more vulnerable to the impacts from a potential earthquake with a magnitude > 5.0 in both geographic areas include the elderly, the very young (under 18 years of age), people with various special needs.

For this plan update, Hazus simulations were re-run with 2010 inventory updates for the following earthquake scenarios:

- Magnitude 5.7, epicenter located in Portland (largest historic event, information within Hazus database);
- Magnitude 5.7, epicenter located in Haddam (largest historic event, information within Hazus database);
- Magnitude 6.4, epicenter located in East Haddam (largest historic event, information within Hazus database); and
- Magnitude 5.7, epicenter located in Stamford (magnitude scenario based on probabilities calculated by USGS in their probability maps).

The magnitudes chosen for these simulations and this plan are the maximum plausible magnitude for a potential earthquake in the scenario areas. The following should be noted for the review and use of these scenarios:

[118] Source: The Northeast States Emergency Consortium website, www.nesc.org/hazards/earthquakes.cfm.

No historic earthquake of a magnitude 5.0 or greater has been recorded for Fairfield County, however USGS potential probabilities for such an event are possible when calculated for a long time period (250 to 350 years); and the last large earthquake with a magnitude of 6.0 occurred around the Portland-Haddam-East Haddam area over 200 years ago. Seismographs were not in use at that time however, an expert determination was made based on damage reports and geographic extent to which the quaking was felt.

The results for each Hazus earthquake simulation are located in Appendix 2. Each Hazus simulation that was run included the entire state of Connecticut for its analysis region. Therefore, it should be noted that the damage and injury estimations are based on state-wide building and infrastructure inventories and Census 2010 population per census tract. These Hazus scenarios were run for planning purposes of this plan to highlight potential areas that may warrant further analysis either at the state, regional or local level. It is very difficult to predict what the actual impacts would be to the State of Connecticut from these earthquake scenarios. The range of potential impacts for these scenarios is wide and extends from minor impact to the maximum potential impacts as presented as a result of the Hazus analyses.

Table 2-65 presents the total estimated losses that may result from the earthquake scenarios created for this plan, as estimated by FEMA's Hazus software. Though the projected economic impacts resulting from these simulations may appear low, the results do indicate that attention does need to be given to potential economic impacts from a magnitude $\geq$ 5.7, since the earthquake epicenters would be located near highly urbanized areas of the state. Thus economic losses should be anticipated from the physical impacts of an earthquake $\geq$ 5.7.

2.18.1 Assessment of State Vulnerability and Potential Losses

Table 2-65 shows the estimated total losses by census tract for all four earthquake scenarios: East Haddam, Haddam, Portland, and Stamford. The East Haddam scenario, below shows the highest estimated losses (between $370 million and $900 million) occurring in the towns of East Haddam, East Hampton, Middletown, and Colchester. The Haddam scenario, shows Haddam, East Haddam, Middlesex, East Hampton and Middletown with the highest estimated losses (between $180 million and $590 million). Figure 2-35 depicting the Portland scenario, shows the towns of Middletown and Glastonbury with the highest estimated losses (between $360 million and $603 million). Figure 2-34 depicting the Stamford scenario, shows the highest estimated losses (between $270 million and $710 million) occurring in the towns of Greenwich, Stamford, New Canaan, and Fairfield.

Table 2-65: Hazus Estimated Direct Losses of Earthquake Scenario Events (shown in thousands of dollars and 2010 Census)

Epicenter Location	Estimated Total Capital Losses	Estimated Total Income Losses	Estimated Total Losses
Stamford	$26,034,390,000	$4,635,220,000	$374,382,622,244
Haddam	$13,714,610,000	$2,667,110,000	$175,758,678,251
Portland	$21,796,420,000	$5,034,860,000	$610,757,561,304
East Haddam	$31,551,170,000	$7,875,450,000	$479,293,444,345

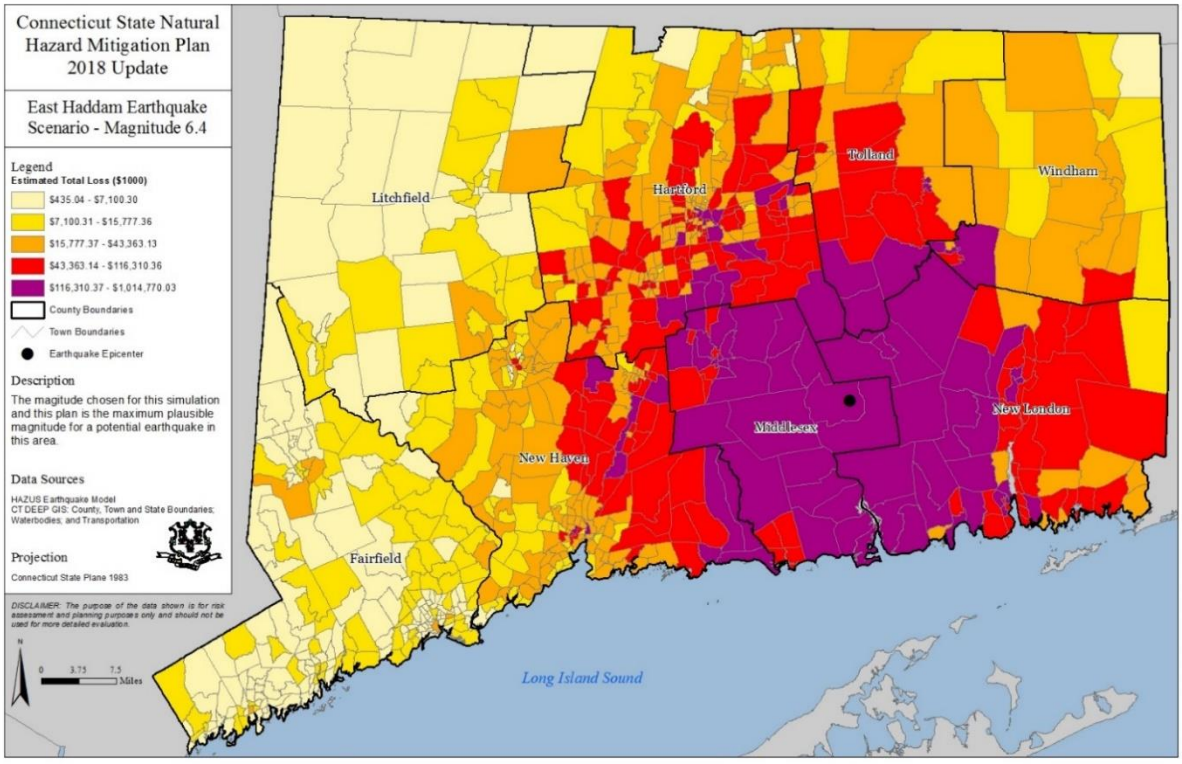

Figure 2-32: East Haddam Earthquake Scenario Estimated Total Losses

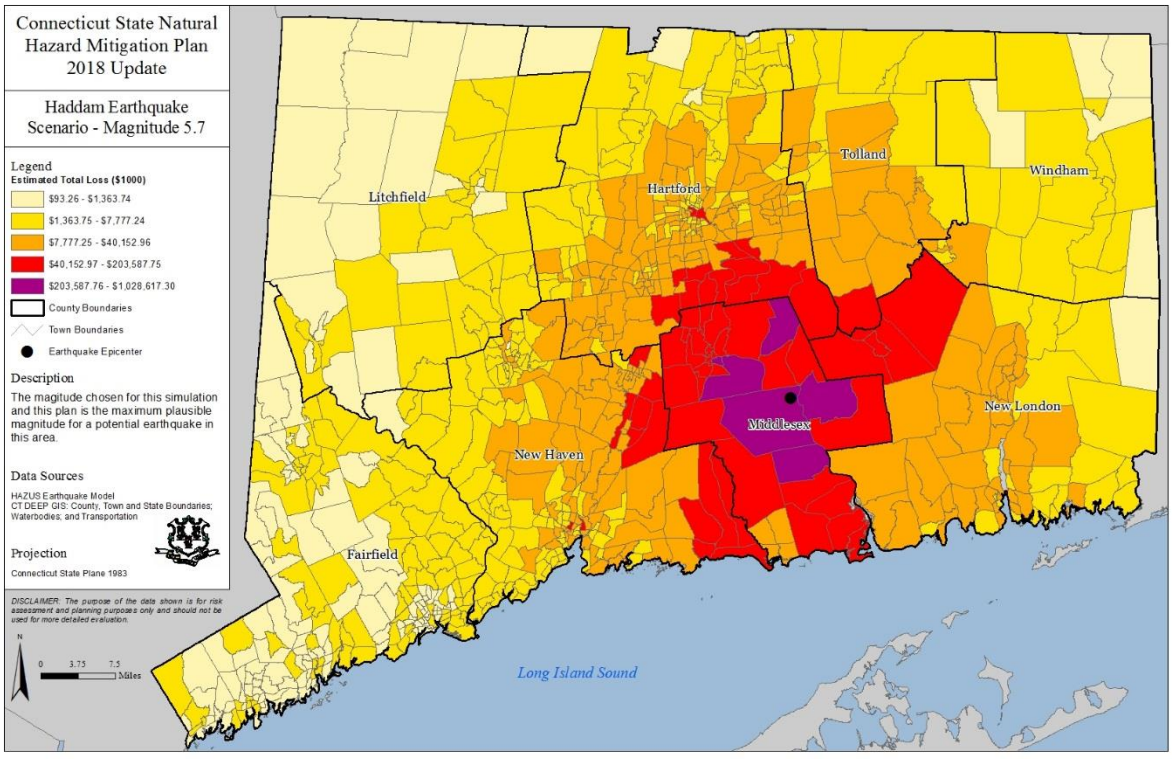

Figure 2-33: Haddam Earthquake Scenario Estimated Total Losses

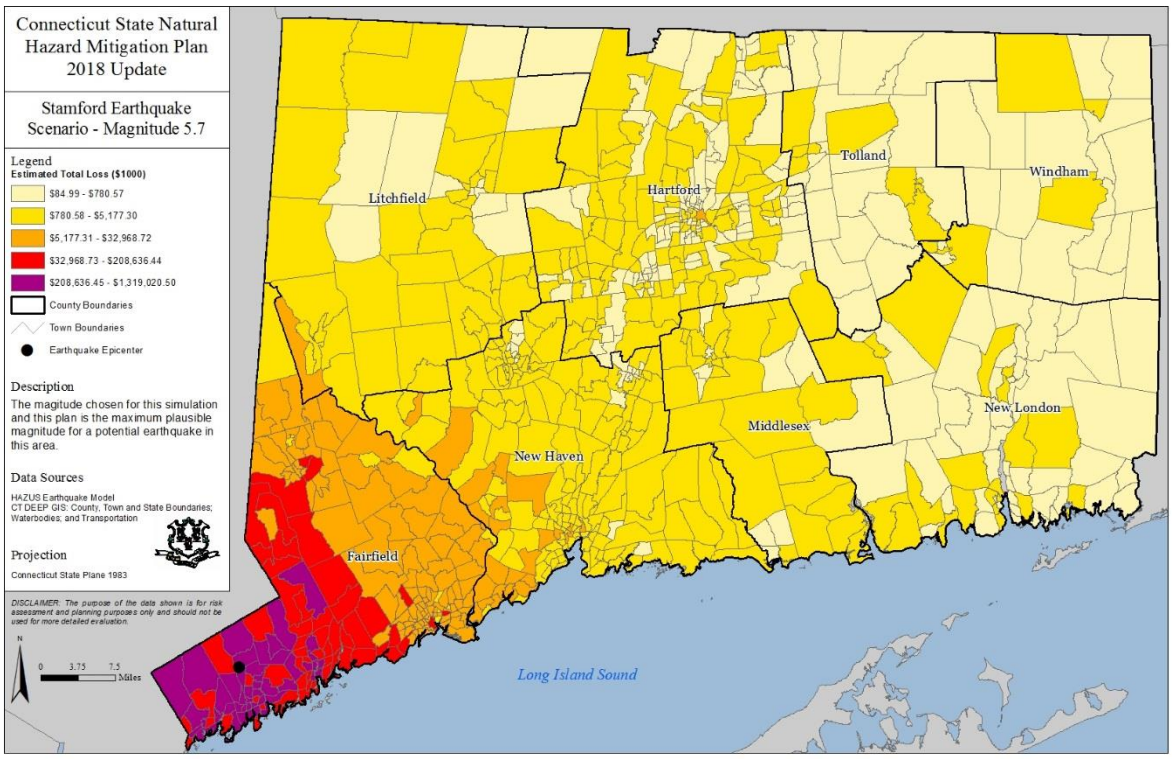

Figure 2-34: Stamford Earthquake Scenario Estimated Total Losses

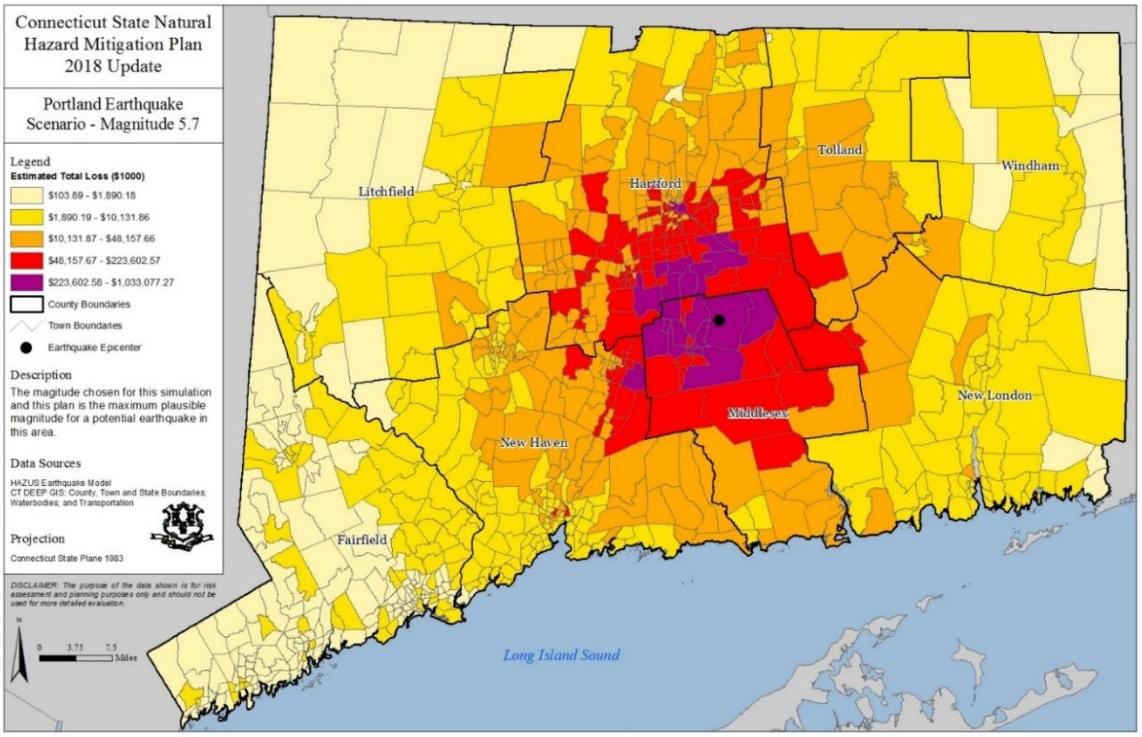

Figure 2-35: Portland Earthquake Scenario Estimated Total Losses

Table 2-66 shows the projected estimated building damage from the four earthquake scenarios. The estimated numbers in this table are based on the total building inventory for

the state. A significant percentage of buildings damaged (88-96%) to any degree are estimated to be either one-family homes or other residential buildings (e.g., apartment buildings, 2- or 3-family homes, etc.). Though residential structures comprise the majority of building damages in the simulations, other building occupancy types will also experience damage. Other building occupancy types include agriculture, commercial, education, government, industrial, and religion. Though smaller in total number of buildings, these other occupancy types are vital to communities and impacts to these structures will be felt by a wide group of people within the immediate location and beyond.

Table 2-66. Total number of buildings damaged by expected degree of damage.

Expected Damage	East Haddam (magnitude 6.40)	Haddam (magnitude 5.70)	Portland (magnitude 5.70)	Stamford (magnitude 5.7)
None	870,681	1,044,983	989,944	1,070,951
Slight	206,112	115,797	139,903	83,723
Moderate	96,265	44,136	62,530	41,029
Extensive	31,080	10,465	18,371	13,628
Complete	14,831	3,588	8,222	9,638

People requiring short-term shelter is estimated to be between 2,000+ to over 11,000 people, depending on the specific scenario. In addition, the estimated the number of displaced households ranged from almost 4,000 to a little over 11,000 in total. The estimates by Hazus may be on the maximum end of an impact range, but do indicate that the potential does exist for individual assistance needs such as sufficient temporary shelter accommodations, and household relocation assistance (temporary or possibly permanent relocation).

For the simulations, Hazus also calculated physical injuries to people by number per injury level. The injury levels are as follows:

- Severity Level 1 – injuries will require medical attention but hospitalization is not needed.
- Severity Level 2 – injuries will require hospitalization but are not considered life-threatening.
- Severity Level 3 – injuries will require hospitalization and can become life threatening if not promptly treated.
- Severity Level 4 – victims are killed by the earthquake.

Injury estimates were developed for three times of day (i.e., 2:00 a.m., 2:00 p.m., and 5:00 p.m.) representing various times of the day during which different community sectors are at their peak occupancy loads. The community sectors considered for the analysis were: commuting; educational; hotels; industrial; other residential; and single family. The vast majority of injuries projected for all scenarios (92-96%) fall within the Severity Level 1 or 2 categories. An analysis of potential fire ignitions resulting from each scenario is shown in Table 2-67. The data from this analysis was not updated in the 2019 plan update, due to the disabling of Fire Following Earthquake in Hazus Version 4.0.

Table 2-67: Potential Fire Impact from Each Earthquake Scenario*

Epicenter Scenario	Number of Ignitions	Population Exposed	Value of Exposed Structures (thousands)
East Haddam	43	552	$58,693
Haddam	71	619	$62,797
Portland	25	351	$38,240
Stamford	15	435	$50,482

**Fire Following Earthquake was disabled in Hazus Version 4.0 (GETTING STARTED WITH HAZUS V4.0, Page 16)*

For the Stamford scenario, all projected fire ignitions were located in Fairfield County. For the other three scenarios, the majority, were estimated to be within communities in Hartford, Middlesex, New Haven, and New London counties. The projected estimates for both injuries and fire starts directly related to a magnitude $\geq$ 5.7 earthquake indicate an increased demand on state and local medical and emergency services (including police and fire) for injuries ranging from non-life-threatening to loss of life.

2.18.2 Assessment of Local Vulnerability and Potential Losses

Connecticut's geology, combined with the fact that earthquake events are more likely to be felt as a result of an earthquake that occurs in the surrounding region rather than originating within Connecticut, results in a relatively small difference in local impacts across the state. The New Haven-Greenwich and Hartford-East Haddam-Haddam-Portland areas are the most vulnerable to potential earthquakes in Connecticut. Additionally, Hartford and New Haven are large population centers, with a higher concentration of low income and underserved communities, making these areas particularly vulnerable to the impacts of an earthquake.

While Connecticut is predicted to experience a low population growth rate between 2016 and 2040, many smaller communities may begin to experience increased development pressures, especially when larger communities reach their build-out limits. This will increase the importance of hazard mitigation planning and natural resource management on a local level to help mitigate and/or reduce potential losses such development activities can create. In particular, strengthening local building codes will help mitigation damage from earthquakes.

2.18.3 Changes in Development

Connecticut is expected to have a 2.2% population growth rate between 2016 and 2040. This low rate reflects the state's relatively stable development projections. As of 2016, approximately 65.7% of the building permits statewide were in Fairfield and Hartford Counties, and both of these counties accounted for nearly half of all the housing units in the State. If recent trends in development continue, these two Counties will continually increase their vulnerability to earthquakes. According to the Connecticut State Data Center, New Haven County is expected to see the most growth, exceeding 900,000 residents by 2025. As the baby boomer generation ages, a generational shift is projected to occur in Connecticut as the Millennials (individuals born 1981-2000) remain a nearly stable

population in Connecticut while the population born after 2000 is projected to continue to rise from 637,464 in 2015 to a projected 1,817,658 by 2040. While Connecticut as a whole is projected to see stable growth in the near future, areas where higher population growth is expected should prepare to develop in ways that mitigate the earthquake vulnerability of its residents.

2.18.4 Hazard Ranking

Quantitative risk assessment, to the degree possible, has been completed for earthquake using the methodology described in the Hazard Analysis and Ranking methodology Section 2.6 of this chapter. Scores for each jurisdiction were calculated based on population, building permits, average score from local plan rankings, average hazard concern, and measures of historical impact including injuries and deaths, property damage, and the number of reported events. The number of impacted critical facilities was also incorporated, and ranked based on the number of facilities impacted in relation to the number of total critical facilities in Connecticut. As shown in Table 2-68, the composite earthquake rank shows Fairfield, Hartford, and New Haven Counties as medium risk; Litchfield, Middlesex, New London, and Tolland Counties as medium-low risk; and Windham County as low risk.

Table 2-68 Hazard Ranking by County for Earthquake

County	Hazard Concern Rank	Local Plans Hazard Rank	Geographic Extent Rank	Population Density Rank	Building Permits Rank	Facility Intersect Rank	Ann. Events Rank	Ann. Losses Rank	Injury & Death Rank	Composite Ranks
Fairfield	Medium-Low	Medium-Low	Medium-Low	High	High	High	Medium-High	Low	Low	**Medium**
Hartford	Low	Medium-Low	Medium-Low	High	High	High	Medium-High	Low	Low	**Medium**
Litchfield	Medium-Low	Medium-Low	Medium-Low	Low	Low	High	Medium-High	Low	Low	**Medium-Low**
Middlesex	Low	Medium-Low	Low	Medium-Low	Medium-Low	High	Medium-High	Low	Low	**Medium-Low**
New Haven	Medium-Low	Medium-Low	Medium-Low	High	Medium	High	Medium-High	Low	Low	**Medium**
New London	Low	Medium-Low	Low	Medium-Low	Medium-Low	High	Medium-High	Low	Low	**Medium-Low**
Tolland	Medium-Low	Medium-Low	Low	Medium-Low	Medium-Low	High	Medium-High	Low	Low	**Medium-Low**
Windham	Low	Medium-Low	Low	Medium-Low	Low	High	Medium-High	Low	Low	**Low**

2.19 Drought Hazard Profile

2019 Plan Update Changes

- The hazard profile has been significantly enhanced to include a detailed hazard description, location, extent, previous occurrences, probability of future occurrence, and potential change in climate and its impacts on the drought hazard is discussed
- New and updated figures from federal and state agencies are incorporated
- U.S. 2010 Census data was incorporated, where appropriate

- Previous occurrences were updated with events that occurred between 2013 and 2017
- Incorporation of information from the 2017 Connecticut State Water Plan

2.19.1 Hazard Description

Droughts can vary widely in duration, severity, and local impact. They may have widespread social and economic significance that require the response of numerous parties. Although associated with deficient precipitation, droughts are measured in a number of ways.

The 2003 Connecticut Drought Preparedness and Response Plan identifies seven criteria for assessing drought:

- Precipitation
- Groundwater
- Streamflow
- Reservoir levels
- Palmer Drought Severity Index (PDSI)
- Crop Moisture
- Fire Danger

Other entities, such as water utilities, may measure drought conditions by these or other criteria, such as the duration in which their well pumps must operate in a day.

Four categories of drought are listed in the drought literature. The first three types of drought are physical in nature, while the fourth type of drought is measured by societal impact[119]:

1. Meteorological Drought – Is a measure of departure of precipitation from the normal. It is relatively regional in nature and affects a specific geographic area due to large variability of precipitation and climatic differences between geographic locations.

2. Hydrological Drought – Occurs when surface and subsurface water supplies are below normal.

3. Agricultural Drought – Refers to a situation where the amount of moisture in the soil no longer meets the needs of a particular crop grown in an area. The key to vulnerability to this type of drought is two-fold—severity and timing. This type of drought tends to be more serious if it occurs when plants are forming or filling their seed (mid-summer in Connecticut).[120]

4. Socioeconomic Drought – The situation that occurs when physical water shortages begin to affect people.

[119] Sources of information on the four drought categories include the National Weather Service Forecast Office, National Drought Mitigation Center, and the Connecticut State Climate Center.
[120] Miller, Dr. David. Drought, Forests, and Agriculture in Connecticut, 2002. The University of Connecticut.

Although all droughts originate with a deficiency of precipitation, hydrologists are more concerned with how this deficiency plays out through the hydrologic system. Hydrological droughts are usually out of phase with the occurrence of meteorological and agricultural droughts. It takes longer for precipitation deficiencies to show up in components of the hydrological system such as soil moisture, streamflow, and ground water and reservoir levels. As a result, these impacts are out of phase with impacts in other economic sectors. For example, a precipitation deficiency may result in a rapid depletion of soil moisture that is almost immediately discernible to agriculturalists, but the impact of this deficiency on reservoir levels may not affect hydroelectric power production, drinking water supply availability, or recreational uses for many months.

Human actions can increase the risk of water shortage without any change in meteorological conditions. For instance, as the degree of imperviousness and water run-off is increased during land development, recharge of groundwater is reduced. This not only reduces the availability of groundwater to wells, it also reduces dry weather flows in streams.[121] Although weather condition is a primary contributor to hydrological drought, other factors such as changes in land use, land degradation, and the construction of dams all affect the hydrological characteristics of a water basin.

2.19.2 Location

Connecticut's general climate has four main characteristics relevant to drought:[122]

- Equitable distribution of precipitation among the four seasons;
- Large ranges of temperature both daily and annually;
- Great differences in the same season or month of different years, and
- Considerable diversity of the weather over short periods of time.

From north to south of the state, the mean annual temperature difference is approximately 6 degrees Fahrenheit. The greatest temperature contrast occurs during the winter season. Precipitation is generally evenly distributed throughout all parts of the state, with Connecticut averaging 120 days of rainfall annually.

Three types of air affect the state, with the first two types influencing the state's climate the most:

- Cold, dry air coming down from sub-arctic North America;
- Warm, moist air flowing up overland from the Gulf of Mexico and sub-tropical waters of the Atlantic; and
- Cool damp air moving in from the Atlantic.

Climate divisions are regions within a state that are climatically homogenous. The National Oceanic and Atmospheric Administration (NOAA) has divided the United States into 359 climate divisions. The boundaries of these divisions typically coincide with the county boundaries, except in the western United States, where they are based largely on drainage

[121] The National Drought Mitigation Center website, *Understanding and Defining Drought*.
[122] Narration from Weather America 2001, and presented on Connecticut's State Climate Center website.

basins. According to NOAA, Connecticut is made up of three climate divisions: Northwest (01), Central (02), and Coastal (03).[123] Figure 2-37[124] shows the climate divisions throughout the United States and Figure 2-36 shows the climate divisions of Connecticut.

As seen in Figure 2-36, the State is divided into three climate divisions for purposes of computing the Palmer Drought Severity Index:

- Northwest Climate Division – Consisting of Litchfield County;
- Central Climate Division – Consisting of parts of Tolland, Windham, Hartford counties and portions of Fairfield, New Haven Middlesex, and New London counties; and
- Coastal Climate Division – Consisting of the coastal portions of Fairfield, New Haven, Middlesex, and New London counties.

[123] http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/regional_monitoring/CLIM_DIVS/states_counties_climate-divisions.shtml
[124] https://www.ncdc.noaa.gov/monitoring-references/maps/us-climate-divisions.php

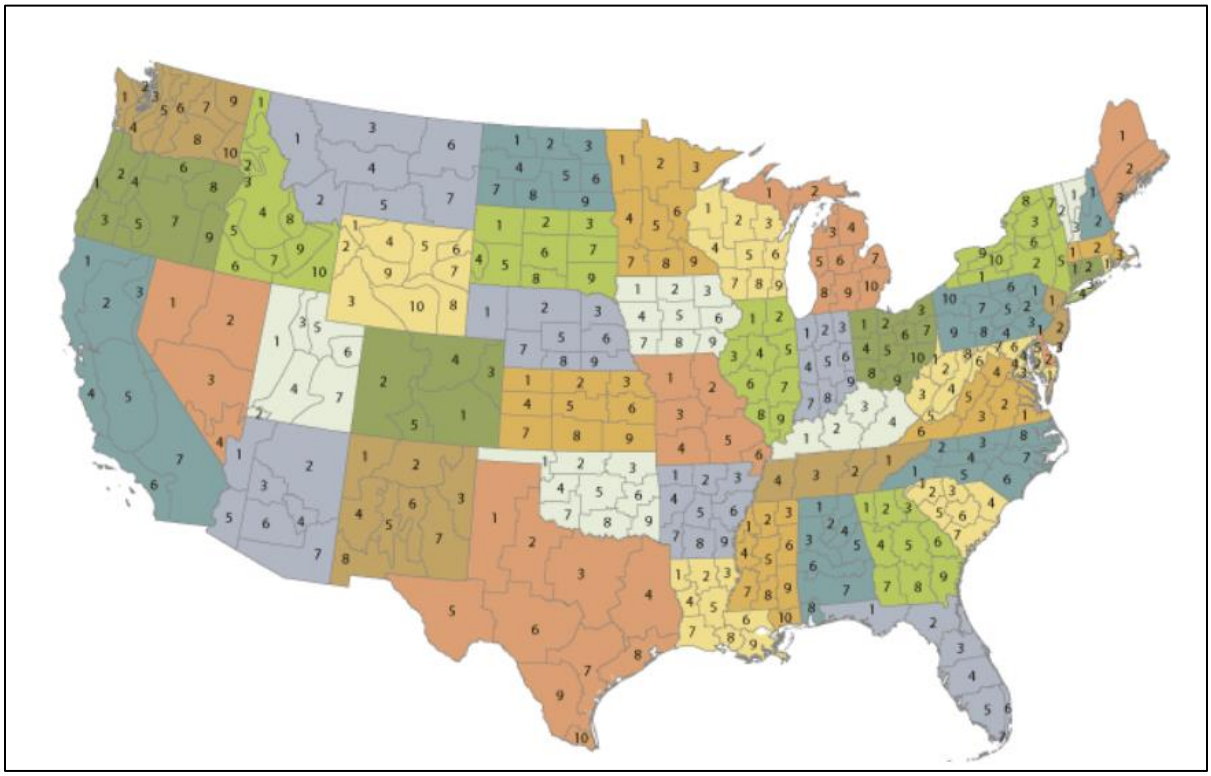

Figure 2-37 Climate Divisions of the United States

Figure 2-36: Climate Divisions of Connecticut

2.19.3 Extent

The extent (i.e., magnitude or severity) of drought can depend on the duration, intensity, geographic extent, and the regional water supply demands made by human activities and vegetation. The intensity of the impact from drought could be minor to total damage in a localized area or regional damage affecting human health and the economy. Generally, impacts of drought evolve gradually, and regions of maximum intensity change with time.

The severity of a drought is determined by areal extent as well as intensity and duration. The frequency of a drought is determined by analyzing the intensity for a given duration, which allows determination of the probability or percent chance of a more severe event occurring in a given mean return period.

The U.S. Drought Monitor is a related product produced in partnership between the National Drought Mitigation Center, the United States Department of Agriculture, and the National Oceanic and Atmospheric Administration. As shown in

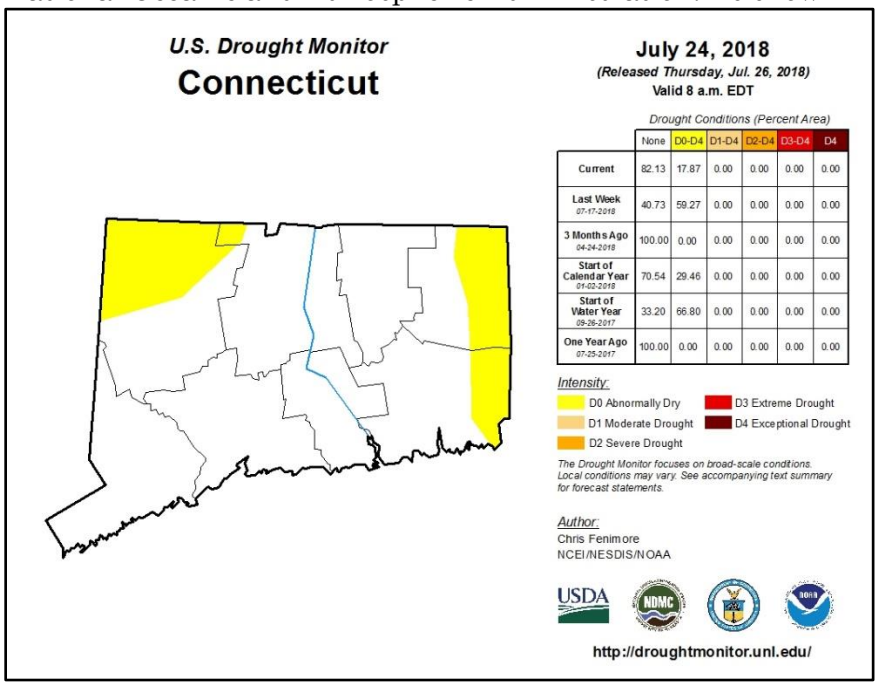

Figure 2-38, as of July 2018 the northwestern and eastern portions of the state were designated abnormally dry by the US Drought Monitor.

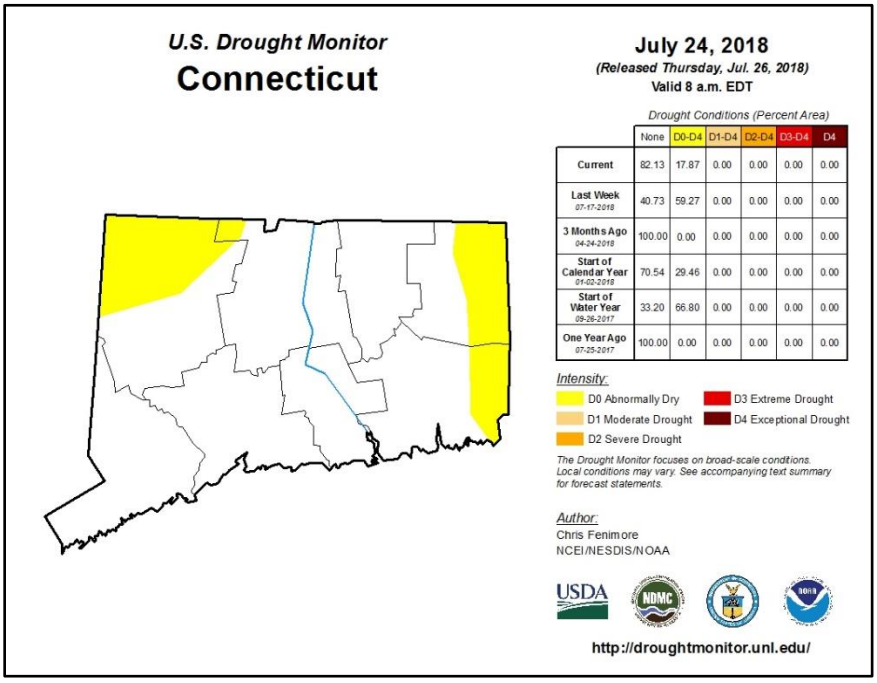

Figure 2-38 U.S. Drought Monitor for Connecticut as of July 24th, 2018 obtained from the National Drought Mitigation Center

2.19.4 Primary and Secondary Impacts

On July 1, 2014, Public Act 14-163, "An Act Concerning the Responsibilities of the Water Planning Council," directed the state's Water Planning Council (WPC) to develop a State Water Plan. The WPC is comprised of representatives of the four state entities with oversight or regulatory responsibility for water management: The Department of Energy and Environmental Protection (DEEP), the Department of Public Health (DPH), the Office of Policy and Management (OPM), and the Public Utilities Regulatory Authority (PURA). While Connecticut has historically enjoyed plentiful, clean water, unique factors in the state have combined to emphasize the importance of the Public Act and its recommended evaluation of water management strategies in the future:

- The recent drought in 2016 raised awareness that even in Connecticut, river basins can be depleted.
- Connecticut is the only state in the U.S. that prohibits wastewater discharges to drinking water sources, preserving the highest quality water for drinking (Class A). This protects human health and helps keep treatment costs low, but the policy could, however, limit future drinking water sources.
- New state streamflow requirements downstream of water supply reservoirs are highlighting the ecological need for water, which must be balanced with other water needs.

- Future climate trends in the northeast are uncertain, and planning for adaptation is essential.[125]

Droughts may have devastating effects on communities and the surrounding environment. The amount of devastation depends on the strength and duration of a drought event. One impact of drought is its impact on water supply. When drought conditions persist with little to no relief, water restrictions may be put into place by local or state governments. These restrictions can include watering of lawns, washing cars, etc. In exceptional drought conditions, watering of lawns and crops may not be an option. If crops are not able to receive water, farmland will dry out and crops will die. This can lead to crop shortages, which, in turn, increases the price of food (North Carolina State University 2013).

Droughts also have the potential to lead to water pollution due to the lack of rain water to dilute any chemicals in water sources. Contaminated water supplies may be harmful to plans and animals. If water is not getting into the soils, the ground will dry up and become unstable. Unstable soils increase the risk of erosion and loss of top soil (North Carolina State University 2013).

The impacts on public health from drought can be severe which includes increase in heat-related illnesses, waterborne illnesses, recreational risks, limited food availability, and reduced living conditions. Those individuals who rely on water, such as farmers, may experience financial-related stress. Decreased amounts and quality of water during drought events have the potential to reduce the availability of electricity (hydropower, coal-burning and nuclear) (North Carolina State University 2013).

2.19.5 Severity

In 2010 the WPC tasked the WPC Advisor Group to update the Drought Plan. Significant changes in the updated draft Plan include a provision that drought declarations can apply to any geographic area; drought stage names were revised to clarify their severity and to avoid confusion with similarly-named stages in the Individual Water Supply Plans; and encouragement for the use of professional judgment concerning recommendations for drought declarations and related response activities. Enforceable actions are not identified. The draft Drought Plan identifies the following five stages of increasingly dry conditions:

- Heightened Awareness
- Below Normal Conditions
- Moderate Drought
- Severe Drought
- Extreme Drought[126]
- These proposed classifications are intended to align more closely with U.S. Drought Monitor terminology and limit confusion with any individual utility drought statuses.

[125] http://www.ct.gov/water/cwp/view.asp?a=4801&Q=586878&PM=1
[126] Connecticut State Water Plan

However, some water utilities still utilize the older five-stage method that pre-dates the 2003 *Connecticut Drought Preparedness and Response Plan:*

- "Alert" which did not include a reduction goal
- "Advisory" with a voluntary 10% reduction goal
- "Emergency Phase I" with a voluntary 15% reduction goal
- "Emergency Phase II" with a voluntary 20% reduction goal
- "Emergency Phase III" with water rationing

2.19.6 Warning Time

As per the National Drought Mitigation Center (NDMC), droughts are climatic patterns that occur over long periods of time. Only generalized warning can take place due to the numerous variables that scientists have not pieced together well enough to make accurate and precise predictions.

The NDMC states that empirical studies conducted over the past century have shown that meteorological drought is never the result of a single cause. It is the result of many causes, often synergistic in nature; these include global weather patterns that produce persistent, upper-level high-pressure systems along the West Coast with warm, dry air resulting in less precipitation.

The National Weather Service Climate Prediction Center can provide seasonal outlooks for droughts that last for 3 month increments. To view the current seasonal outlook, visit http://www.cpc.ncep.noaa.gov/products/expert_assessment/sdo_summary.php. Predicting drought depends on the ability to forecast precipitation and temperature. Anomalies of precipitation and temperature may last from several months to several decades. How long they last depends on interactions between the atmosphere and the oceans, soil moisture and land surface processes, topography, internal dynamics, and the accumulated influence of weather systems on the global scale.

The Interagency Drought Advisory Workgroup, comprised of the Commissioners of DPH and the Department of Energy and Environmental Protection (DEEP), and the Chairman of the Public Utility Regulatory Authority (PURA), monitors and analyzes water-related data to ensure that Connecticut's water supplies remain stable.[127] The Workgroup has drought benchmarks that include: precipitation, ground water, streamflow, reservoirs, Palmer Drought Severity Index, Crop Moisture Index, and fire danger.[128]

2.19.7 Previous Occurrences and Losses

Considering just the Palmer Drought Severity Index (PDSI), severe droughts have occurred periodically in Connecticut, most recently during 1929-1931, 1957, 1964-1966, 2002, 2007-2008, 2012, 2013, and 2015-2017.129 While the agricultural drought of 1957 was especially

[127] Drought Advisory Press Release 6_24_16
[128] Drought Preparedness Response Plan 2003

[129] http://www.nrcc.cornell.edu/regional/drought/drought.html

disastrous to the State's agricultural interests it was also a severe meteorological drought for small reservoirs in the State. Other meteorological droughts of June 1929 through March 1931 and the mid-1960s were also very serious. Connecticut experienced its drought of record during the 1960s with rainfall deficits reaching their highest levels in the spring of 1965. This drought severely limited water resources throughout the state.

A meteorological drought was declared in 2012 as the result of precipitation that had been approximately one half of normal from January 2012 through April 2012. The main impact of the drought was periods of very high fire danger. In addition, small pond levels were reduced. While soil moisture was well below normal, this drought occurred prior to the beginning of the growing season. Thus, no agricultural impacts were realized.

The region became free of severe drought for the first time since late June 2016. Moderate drought eased in Maine, Massachusetts, New York, most of New Hampshire and Vermont, and portions of Connecticut, Pennsylvania, and Maryland. According to an April 21 press release, all of Connecticut Water's reservoirs throughout the state were at 100 percent of capacity, so the water supply advisory was lifted. Aquarion's Bridgeport and Greenwich (Connecticut) reservoirs were at near to above-average capacity as of April 24th but its Stamford reservoir was still below-average capacity at 88.4 percent as of April 25th. Effective April 1st, the Connecticut River Valley and southeast Massachusetts improved to a Drought Advisory from a Drought Watch, while western Massachusetts improved to normal status from a Drought Advisory.[130]

A total of four distinct drought events have been recorded in NCEI from 1996 to 2017, with at least one event impacting each of the state's eight counties during this time (

[130] http://www.nrcc.cornell.edu/regional/narrative/narrative.html

Table 2-69). These events did not have any deaths, injuries, or damages associated with them. However, the USDA reported a total of over $57.4 million in crop insurance claims between 1996 and 2016 in the State of Connecticut.[131]

[131] https://www.rma.usda.gov/data/cause.html

Table 2-69: NCEI Total Drought Events 1996 – 2017, and USDA Annualized Crop Losses 1996 - 2016

County	Number of Events	USDA Annualized Insured Crop Losses
Fairfield	6	$26,002
Hartford	9	$31,826,077
Litchfield	2	$3,055,123
Middlesex	6	$1,069
New Haven	6	$360,109
New London	6	$340,087
Tolland	9	$11,850,855
Windham	7	$9,988,829

FEMA Disaster Declarations

Between 1954 and 2017, the State of Connecticut was not included in any FEMA drought-related major disaster (DR) or emergency (EM) declarations.

USDA Disaster Declarations

Agriculture-related drought disasters are quite common. One-half to two-thirds of the counties in the United States have been designated as disaster areas in each of the past several years. The USDA Secretary of Agriculture is authorized to designate counties as disaster areas to make emergency loans to producers suffering losses in those counties and in counties that are contiguous to a designated county. USDA Secretarial disaster designations must be requested of the Secretary of Agriculture by a governor or the governor's authorized representative, by an Indian Tribal Council leader or by an FSA State Executive Director (SED). The Secretarial disaster designation is the most widely used and its process is the most complicated of the four. An expedited process for drought was introduced in 2012.[132] Table 2-70 presents USDA declared drought and excessive heat events impacting the State.[133]

Table 2-70: Drought-Related USDA Declarations (2013-2017)

Year	Approval Date	Designation Number	Description of Disaster	Counties Affected
2012	10/24/2012	S3427	Drought, Excessive Heat	Fairfield, Litchfield
2014	12/10/2014	S3775	Drought	Hartford, Litchfield, Middlesex, New Haven, New London, Tolland, Windham

[132] https://www.fsa.usda.gov/Assets/USDA-FSA-Public/usdafiles/FactSheets/2017/emergency_disaster_designation_and_declaration_process_oct2017.pdf
[133] https://www.fsa.usda.gov/programs-and-services/disaster-assistance-program/disaster-designation-information/index

Year	Approval Date	Designation Number	Description of Disaster	Counties Affected
2015	11/4/2015	S3928	Drought	Fairfield, Hartford, Litchfield, Middlesex, New Haven, New London, Tolland, Windham
2016	9/7/2016	S4032	Drought – Fast Track	Windham
2016	9/21/2016	S4045	Drought – Fast Track	New London
2016	9/21/2016	S4047	Drought – Fast Track	Hartford, Litchfield, Tolland, Windham
2016	9/21/2016	S4050	Drought	Litchfield
2016	9/28/2016	S4055	Drought – Fast Track	Fairfield, Hartford, Litchfield, Middlesex, New Haven, New London, Tolland, Windham
2016	10/19/2016	S4076	Drought	New London, Windham
2017	3/3/2017	S4160	Drought – Fast Track	Hartford, Litchfield, Tolland

Note: Fast track designations for severe droughts provide a nearly automatic designation when, during the growing season, any portion of the county meets the severe drought intensity value for eight consecutive weeks or a higher drought intensity value for any length of time as reported by the U.S. Drought Monitor.

2.19.8 Probability of Future Events

As noted by the National Drought Mitigation Center, drought risk is based on four elements:

- Frequency;
- Severity;
- Physical nature of the drought; and
- The affected area's vulnerability to the effects of the drought.

Predicting the future occurrence of a drought within a given time period is difficult. Other factors may also contribute to the degree of droughts and their impacts on Connecticut. These include projections of humidity levels (decrease), hotter temperatures and increased heat wave occurrences, transpiration rates, increased water demands by the general population, and industry sectors.

However there are indicators and tools available that can help indicate to scientists when a drought may occur and to monitor the duration of said drought. Connecticut, as with most states within the United States, use both the PDSI and the Crop Moisture Index (CMI) as indices for a drought occurrence. The PDSI indicates prolonged and abnormal moisture deficiency or excess and helps climatologists evaluate the scope severity and frequency of prolonged periods of dryness, while the CMI (a derivative of the PDSI) provide information on the short-term or current status of purely agricultural drought or moisture surplus. The PDSI is most effective for determining long-term drought conditions, while the CMI is effective at helping determine short-term droughts.

Based on historical data, it is reasonable to assume that Connecticut has a medium probability of future drought events. Table 2-71 summarizes the probability of future events by county (annualized events) highlighting the probability of a drought every two to three years.

Table 2-71: NCEI Annualized Events for Drought Hazards

County	Annualized Events	Total Annualized Damages
Fairfield	0.27	$1,182
Hartford	0.41	$1,446,640
Litchfield	0.09	$138,869
Middlesex	0.27	$49
New Haven	0.27	$16,369
New London	0.27	$15,459
Tolland	0.41	$538,675
Windham	0.32	$454,038

Note: Reporting Period from January 1993 to December 2017

2.19.9 Climate Change Impacts

As a result of the analysis done in the Connecticut State Water Plan, there is general consensus in the climate models for a hotter and wetter future. Mean annual temperature changes for the 2080 planning horizon, compared to historical baseline, range from approximately +0.5 ˚C to + 6.5 ˚C. Mean annual precipitation changes range from approximately -5% to +30%, with the vast majority of the projections predicting an increase in mean annual precipitation.

Both summer and winter temperatures are projected to increase by similar amounts; and a similar shift is observed for both extreme cold and extreme hot months. Precipitation projections are more variable, although consistently projecting a generally wetter future. The largest precipitation increases are projected for the wetter months (higher percentiles), including extreme wet months. The seasonality plots show that winter and spring precipitation changes are projected to be larger than summer and autumn changes. Drier months are generally projected to remain about the same in terms of both frequency and rainfall level. Small decreases in extreme dry month precipitation are projected for the "hot/dry" scenario.

Typical climate forecasts tend to suggest that increased temperatures coupled with increased annual precipitation generally correspond to higher intensity storms (greater flood risk) and longer dry periods in the summer months (more frequent and/or intense droughts). Because Connecticut has so many small reservoir systems, these systems could be very sensitive to such changes.

Demands could similarly be impacted, with increasing demands due to higher temperatures, but with changes tempered by increased rainfall. The timing of water

availability and stream flows will also undoubtedly be impacted, with less snow pack and earlier melt. The combination of potential rapid snow melt and higher extreme precipitation events could translate to an increased flooding risk. Lastly, river water quality could be negatively impacted by the higher temperatures; higher water temperatures can lead to increased growth rates of both algae and bacteria, and lower dissolved oxygen saturation levels. The results presented above generally agree with other studies that have been done on potential future climate trends in Connecticut. In 2010, a report was issued by Climate Change Connecticut that suggested the following summary conclusions:

1. Connecticut could see a temperature increase of 4 – 7.5°F by end of the 21st century.
2. Precipitation in Connecticut could increase by 5-10% by end of the century, and redistribute itself so that more of this increase occurs during winter months.
3. Sea-level rise may increase 12-23 inches by the end of the century.
4. Drought frequency may increase as well as duration and intensity.
5.

2.20 Drought Vulnerability Assessment

To understand risk, the assets exposed and vulnerable to the hazard areas are identified. For the drought hazard the entire State of Connecticut is exposed. This section addresses assessing vulnerability and estimating potential losses by jurisdiction within Connecticut and to State facilities.

Table 2-5 includes the number of state infrastructure/facilities, building value and contents value by municipality. There are 3,327 mapped state-owned facilities. Based on a combination of the 2013 JESTIR database and Connecticut Open Data, the estimated total value of state buildings is $5.6 billion, with over $866 million in content value; the building and contents values have not been estimated for all state-owned building. The State's total building and contents value only includes those buildings where value information was available and is intent for use in this plan and should not be used for other applications. The state contains 1,940 identified critical facilities in the categories of correctional institutions, EMS facilities, fire stations, gas stations with generator, health departments, law enforcement facilities, municipal solid waste, nuclear power plants, and storage tank farms. 1,846 of these critical facilities were able to be geospatially mapped for analysis.

For the purposes of this 2019 Plan update, all State buildings and local assets are exposed to droughts. As the State of Connecticut continues to become more urbanized, the State facilities will need to be developed in locations that will serve the growing population.

2.20.1 Assessment of State Vulnerability and Potential Losses

Drought events generally do not impact buildings, however they have the potential to impact agriculture-related facilities and critical facilities that are associated with potable water supplies. No structures are anticipated to be directly affected by a drought, and all

are expected to be operational during a drought event. However, droughts contribute to conditions conducive to wildfires. Risk to life and property is greatest in areas where forested areas adjoin urbanized areas (high-density residential, commercial, and industrial), known as the wildland-urban interface (WUI). Therefore, all state buildings, critical facilities and infrastructure within the WUI zone are considered vulnerable to wildfire. Section 2.27 describes the wildland fire hazard in the State.

2.20.2 Assessment of Local Vulnerability and Potential Losses

Drought impacts cross jurisdictional boundaries and primarily impact the population's water supply and the agricultural industry. Buildings are not anticipated to be directly affected by a drought, and all are expected to be operational during a drought event.

To estimate land exposure to drought, agricultural land acreage was used. Table 2-72 lists the agricultural statistics, by county, for the State of Connecticut. The counties with the greatest acreage of farmland include: Litchfield and New London.

Table 2-72: USDA Agricultural Statistics for Connecticut

County	Number of Farms	% of Total Farms in State	Land in Farms (acres)	Market Value of Products Sold	% of State Total
Fairfield	439	7.34%	53,948	$34,820,000	6.32%
Hartford	899	15.04%	54,062	$113,896,000	20.69%
Litchfield	1,207	20.19%	90,963	$46,281,000	8.41%
Middlesex	518	8.67%	24,070	$53,487,000	9.71%
New Haven	695	11.63%	42,309	$84,620,000	15.37%
New London	949	15.88%	65,159	$118,331,000	21.49%
Tolland	578	9.67%	47,764	$54,972,000	9.98%
Windham	692	11.58%	58,264	$44,212,000	8.03%

The agricultural industry is most at risk. Damaged and dead crops are also vulnerable to wildland fires which can spread easily during periods of drought. A prolonged drought event could have significant impacts to the State's economy, particularly in counties that have large amounts of agricultural lands. While agriculture is not the primary commodity for Connecticut, it is significant enough to impact the State should a prolonged drought occur.

According to the 2012 USDA Agricultural Census, the top three counties for agricultural production, in terms of percent of state total market value of products sold, are: New London (21.5-percent), Hartford (20.7-percent), and New Haven (15.4-percent).

According to the 2012 USDA Agricultural Census, approximately 2,766 farm operators reported farming as their primary occupation. The market value of agricultural products sold from all farms in the State total over $550 million, with total sales averaging $92,123

per farm. Crop sales, including nursery and greenhouse, accounted for over $389 million (71-percent) of total sales. Livestock sales accounted for over $161 million (29-percent) of total sales. The lead agricultural products sold were nursery, greenhouse, floriculture, and sod ($252.9 million); milk from cows ($69.8 million); and poultry and eggs ($48.8 million) (USDA National Agricultural Statistics Service 2012). It is evident that damage or complete loss of a crop will have direct economic impacts on the agricultural industry.

There are approximately 322,578 private residential wells in Connecticut that serve approximately 23% of the state's population of 3,574,097 persons (2010 census). About 822,575 people are served by their own private residential well. Residents who rely on well water may experience a decrease in water supply during times of drought. As development continues in Connecticut, the demand for water will increase as well. While the State is not particularly prone to extreme instances of drought, increased demand has the potential to exacerbate moderate or severe droughts.

Drought events impact the economy, including loss of business function and damage and loss of inventory. Industries that rely on water for business may be impacted the hardest (e.g., landscaping businesses). Even though most businesses will still be operational, they may be impacted aesthetically. These aesthetic impacts are most significant to the recreation and tourism industry.

2.20.3 Changes in Development

An understanding of population and development trends can assist in planning for future development and ensuring that appropriate mitigation, planning, and preparedness measures are in place. The State considered the following factors to examine previous and potential conditions that may affect hazard vulnerability:

- Potential or projected development
- Projected changes in population
- Other identified conditions as relevant and appropriate

Since the entire State is exposed to drought, any new development and increases in population will be vulnerable to the impacts from these events. As discussed in Section 1.2.4 (Land Use and Development), Fairfield County and Hartford County continue to see the majority of development. As of 2016, approximately 65.7% of the building permits statewide were in Fairfield and Hartford Counties, and both of these counties accounted for nearly half of all the housing units in the State. Statewide, there is an estimated 2.2% change in population expected between 2020 and 2040. In regard to drought, a major concern with increased development is the added stress on the water supply. Increases in development and population will result in a greater water requirement for the region, and in times drought, will put more of the population at risk unless the water supply is properly managed.

2.20.4 Hazard Ranking

Quantitative risk assessment, to the degree possible, has been completed for drought using the methodology described in the Hazard Analysis and Ranking methodology Section 2.6 of this chapter. Scores for each jurisdiction were calculated based on population, building permits, geographic extent, average score from local plan rankings, average hazard concern, and measures of historical impact including injuries and deaths, property damage, and the number of reported events. The number of impacted critical facilities was also incorporated, and ranked based on the number of facilities impacted in relation to the number of total critical facilities in Connecticut. For drought, critical facilities was given a weight of 0.5, compared to the weight of 1 given for all other hazards. This reduced weight reflects the low impact drought has on structures, and the high impact it has on agricultural areas. As shown in Table 2-73, the composite drought rank shows Hartford County as medium-high risk; Fairfield and New Haven Counties as medium risk; and Litchfield, Middlesex, New London, Tolland, and Windham as medium-low risk.

Table 2-73: Hazard Ranking by County for Drought

County	Hazard Concern Rank	Local Plans Hazard Rank	Geographic Extent Rank	Population Density Rank	Building Permits Rank	Facility Intersect Rank	Ann. Events Rank	Ann. Losses Rank	Injury & Death Rank	Composite Ranks
Fairfield	Medium-High	Medium	Low	High	High	Medium	Medium	Low	Low	**Medium-Low**
Hartford	Medium-High	Medium	Low	High	High	High	Medium-High	Low	Low	**Medium**
Litchfield	Medium-High	Medium	High	Low	Low	Medium-High	Medium-High	Low	Low	**Medium**
Middlesex	Medium-High	Medium	Low	Medium-Low	Medium-Low	Medium	Medium	Low	Low	**Medium-Low**
New Haven	Medium-High	Medium	Low	High	Medium	Medium-High	Medium	Low	Low	**Medium-Low**
New London	Medium-High	Medium	Low	Medium-Low	Medium-Low	Medium	Medium	Low	Low	**Medium-Low**
Tolland	Medium-High	Medium	High	Medium-Low	Medium-Low	Medium-High	Medium-Low	Low	Low	**Medium**
Windham	Medium-High	Medium	High	Medium-Low	Low	Medium-High	Medium-Low	Low	Low	**Medium**

2.21 Thunderstorm Related Hazards Profile

2019 Plan Update Changes

- The hazard profile has been significantly enhanced to include a detailed hazard description, location, extent, impact (severity, warning time, and secondary impacts), previous occurrences, probability of future occurrence, and potential change in climate and its impacts on the thunderstorm hazard is discussed

- Previous occurrences were updated with events that occurred between 2013 and 2017

- Events reported in this update include Hail, High wind, Lightning, Strong Wind, and Thunderstorm Wind. Hail events were not reported in the 2014 update

2.21.1 Hazard Description

Thunderstorms are formed when the right atmospheric conditions combine to provide moisture, lift, and warm unstable air that can rise rapidly. Thunderstorms occur any time of the day and in all months of the year, but are most common during summer afternoons and evenings and in conjunction with frontal boundaries. The National Weather Service classifies a thunderstorm as severe if it produces hail at least one inch in diameter, winds of 58 mph or greater, or a tornado. About 10 percent of the estimated 100,000 annual thunderstorms that occur nationwide are considered severe. [134] Thunderstorms affect a smaller area compared with winter storms or hurricanes, but they can be dangerous and destructive for a number of reasons. Storms can form in less than 30 minutes, giving very little warning; they have the potential to produce lightning, hail, tornadoes, powerful straight-line winds, and heavy rains that produce flash flooding. Thunderstorms can contribute to other hazard events, such as flooding (Section 1.13), strong straight-line winds, tornadoes (Section 1.25), hail, and lightning, as well as the possibility of lightning-initiated fires. For the purpose of this plan update, this section will include thunderstorms, hail, lightning, and straight-line winds.

Thunderstorms and Lightning

All thunderstorms produce lightning, and therefore all thunderstorms are dangerous. Lightning often strikes outside of areas where it is raining, and may occur as far as 10 miles away from rainfall. It can strike from any part of the storm, and may even strike after the storm has seemed to pass. Hundreds of people across the nation are injured annually by lightning, most commonly when they are moving to a safe place but have waited too long to seek shelter. Lightning strike victims often suffer long-term effects such as memory loss, sleep disorders, weakness and fatigue, chronic pain, depression and muscle spasms.[135]

Hail

Hail forms inside a thunderstorm where there are strong updrafts of warm air and downdrafts of cold water. If a water droplet is picked up by the updrafts, it can be carried well above the freezing level. Water droplets freeze when temperatures reach 32°F or colder. As the frozen droplet begins to fall, it may thaw as it moves into warmer air toward the bottom of the thunderstorm. However, the droplet may be picked up again by another updraft and carried back into the cold air and re-freeze. With each trip above and below the freezing level, the frozen droplet adds another layer of ice. The frozen droplet, with many

[134] National Oceanic and Atmospheric Administration, http://www.nws.noaa.gov/om/severeweather/resources/ttl6-10.pdf.
[135] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3737249/

layers of ice, falls to the ground as hail. Most hail is small and typically less than two inches in diameter.[136]

Straight-Line Winds

High winds, other than tornadoes, are experienced in all parts of the United States. Areas that experience the highest wind speeds are coastal regions from Texas to Maine, and the Alaskan coast; however, exposed mountain areas experience winds at least as high as those along the coast.[137] Wind begins with differences in air pressures. It is rough horizontal movement of air caused by uneven heating of the earth's surface. Wind occurs at all scales, from local breezes lasting a few minutes to global winds resulting from solar heating of the earth. Effects from high winds can include downed trees and power lines, and damages to roofs, windows, etc.[138] Table 2-74 provides the descriptions of winds used by the NWS.

Table 2-74: NWS Wind Descriptions

Descriptive Term	Sustained Wind Speed (miles per hour)
Strong, dangerous, or damaging	≥40
Very Windy	30-40
Windy	20-30
Breezy, brisk, or blustery	15-25
None	5-15 or 10-20
Light or light and variable wind	0-5

Two basic types of damaging wind events other than tropical systems affect Connecticut: synoptic-scale winds and thunderstorm winds. Synoptic-scale winds are high winds that occur typically with cold frontal passages or Nor'easters. When thunderstorm winds exceed 58 mph, the thunderstorm is considered severe and a warning is issued. "Downbursts" cause the high winds in a thunderstorm. Downburst winds result from the sudden descent of cool or cold air toward the ground. As the air hits the ground, it spreads outward, creating high winds. Unlike tornadoes, downburst winds move in a straight line, without rotation. The term "microburst" refers to a small downburst with damaging winds up to 168 mph and less than 2.5 miles in length. The term "macroburst" refers to a large downburst that can extend greater than 2.5 miles with winds up to 134 mph and can last 5 to 30 minutes.

Another widespread thunderstorm wind event is known as a derecho. Derechos are associated with lines (squall lines) of fast-moving thunderstorms that might vary in length and have the potential to travel hundreds of miles. Winds in these types of events can rival those of "weaker" tornadoes with gusts of 80 to 100 mph covering a wide area.

[136] NWS. 2010. "Hail Awareness." On-Line Address: http://www.weather.gov/cae/hail.html
[137] FEMA. 1997. "Atmospheric Hazard." On-Line Address: http://www.fema.gov/media-library-data/20130726-1545-20490-1407/mhira_n1.txt
[138] Rosenstiel School of Marine & Atmospheric Science. 2005. "Katabatic Winds." University of Miami. December 1. On-Line Address: http://www.rsmas.miami.edu/personal/milicak/katabatic/node3.html

In the United States, an average of 300 people are injured and 80 people are killed by lightning each year. Typical thunderstorms are 15 miles in diameter and last an average of 30 minutes. An estimated 100,000 thunderstorms occur each year in the United States, with approximately 10% of them classified as severe. During the warm season, thunderstorms are responsible for most of the rainfall.[139]

2.21.2 Location

Thunderstorms and Lightning

Thunderstorms affect relatively small localized areas, rather than large regions like winter storms and hurricane events. Thunderstorms can strike in all regions of the United States; however, they are most common in the central and southern states. The atmospheric conditions in these regions of the country are ideal for generating these powerful storms. It is estimated that there are as many as 40,000 thunderstorms each day worldwide.

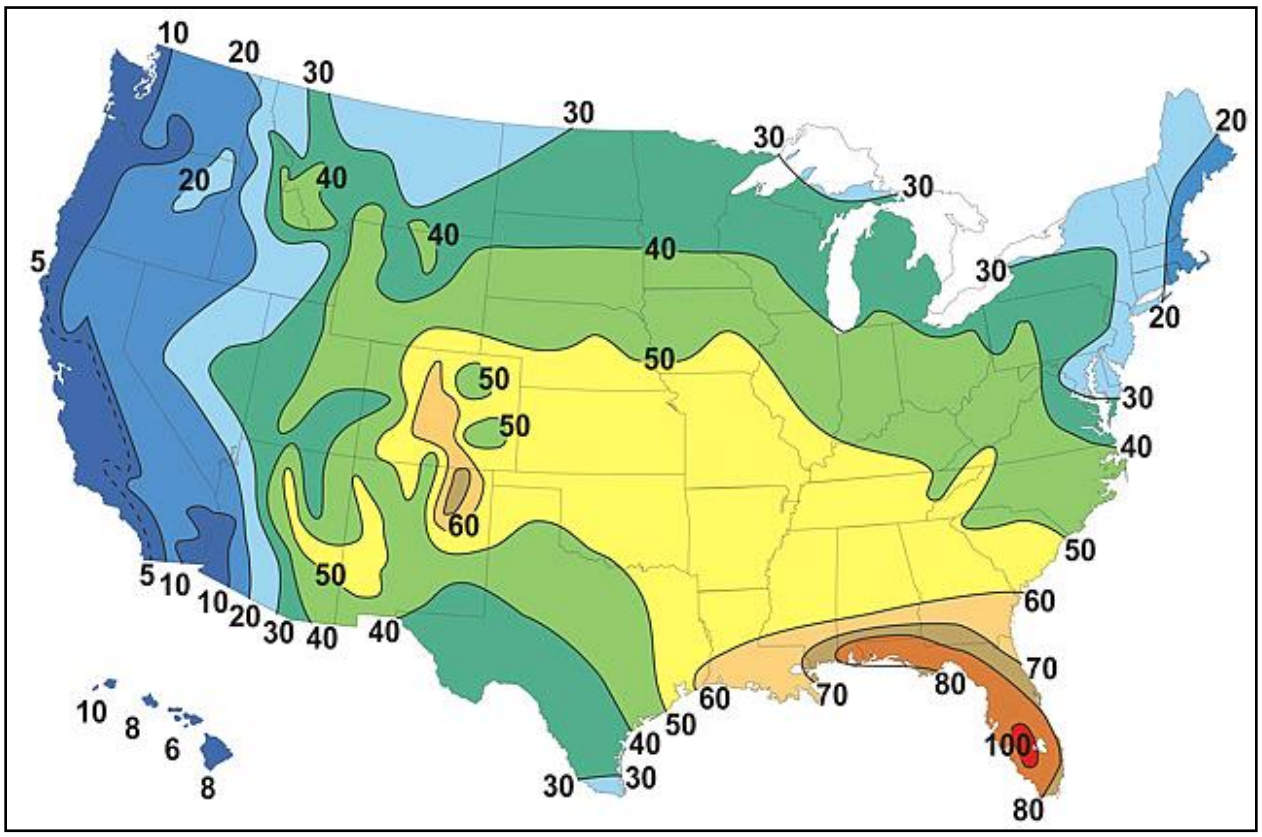

Figure **2-39** shows the average number of thunderstorm days throughout the United States. The most thunderstorms are seen in the southeast states, with Florida having the highest incidences (80 to over 100 thunderstorm days each year). This illustrates that locations in Connecticut experience between 20 and 30 thunderstorm days each year.[140] The black circle

[139] https://www.nssl.noaa.gov/education/svrwx101/thunderstorms/
[140] https://www.weather.gov/jetstream/tstorms_intro

indicates the approximate location of Connecticut. According to this figure, the State experiences an average between 20 and 30 thunderstorms annually.

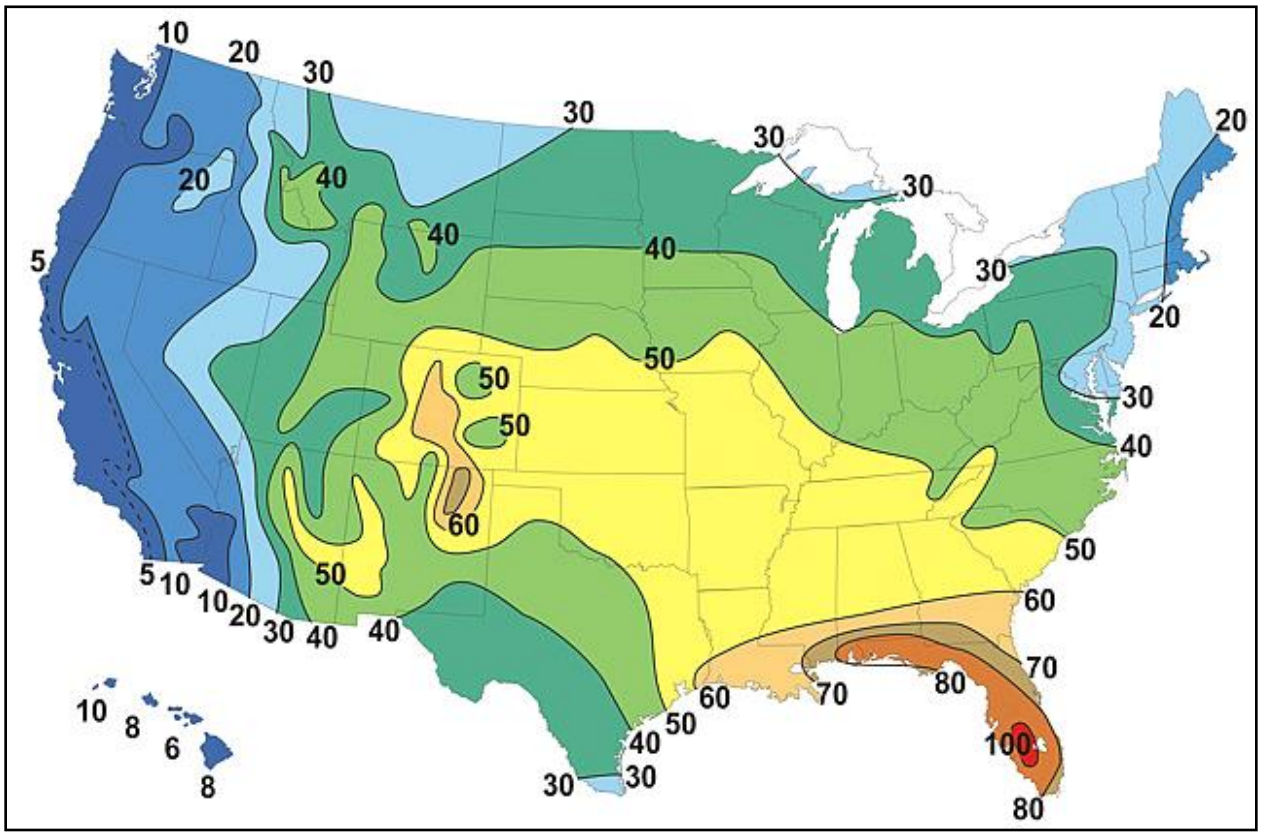

Figure 2-39: Annual Average Number of Thunderstorm Days in the United States

Hail

Hail causes nearly $2 billion in crop and property damages, on average, each year in the United States. Hail occurs most frequently in the southern and central plain states; however, since hail occurs with thunderstorms, the possibility of hail damage exists throughout the entire United States.[141] Figure 2-40 indicates that Connecticut experiences between three and four severe hail days a year, on average.

[141] http://www.flash.org/peril_hail.php

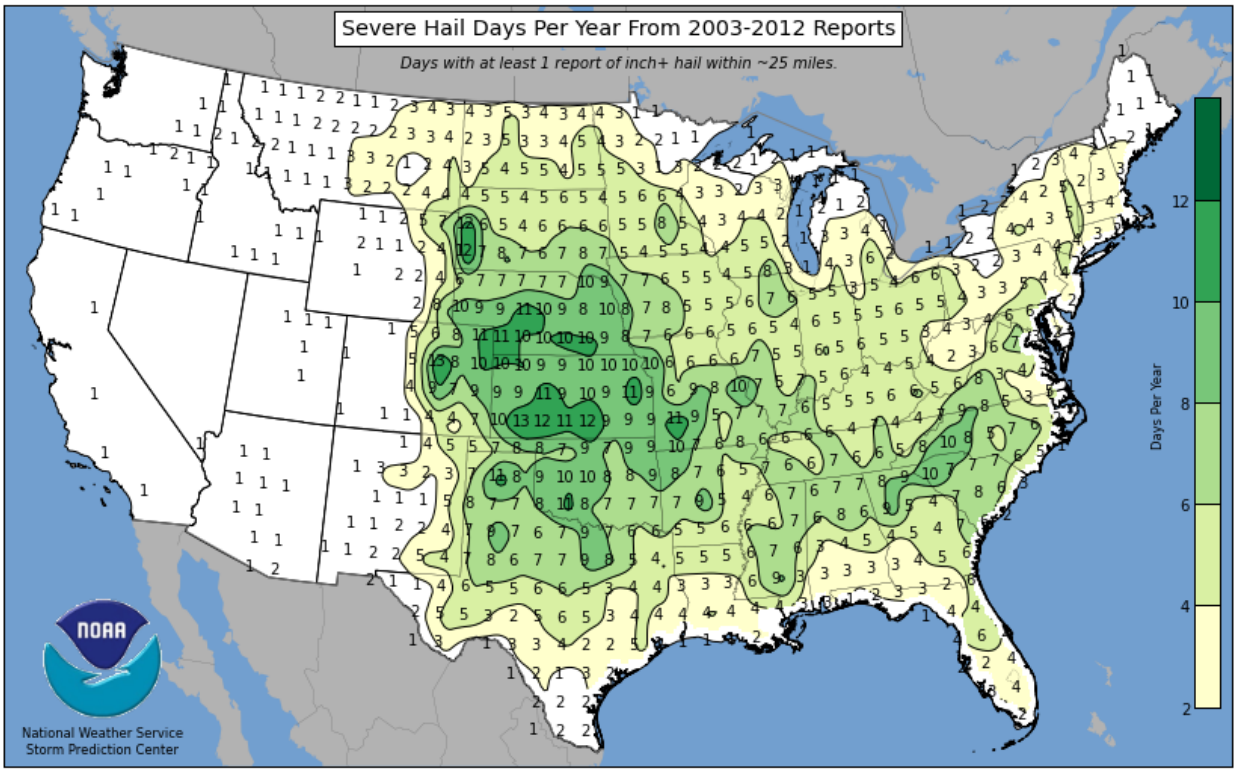

Figure 2-40: Annual Frequency of Hailstorms in the United States, NOAA

Straight-Line Winds

Figure 2-41 indicates how the frequency and strength of windstorms impacts the United States and the general location of the most wind activity. This is based on 40 years of tornado data and 100 years of hurricane data, collected by FEMA. States located in Wind Zone IV have experienced the greatest number of tornadoes and the strongest tornadoes. Connecticut is located within Wind Zone II, which may experience wind speeds up to 160 mph. The entire State is also located within the hurricane-susceptible region.

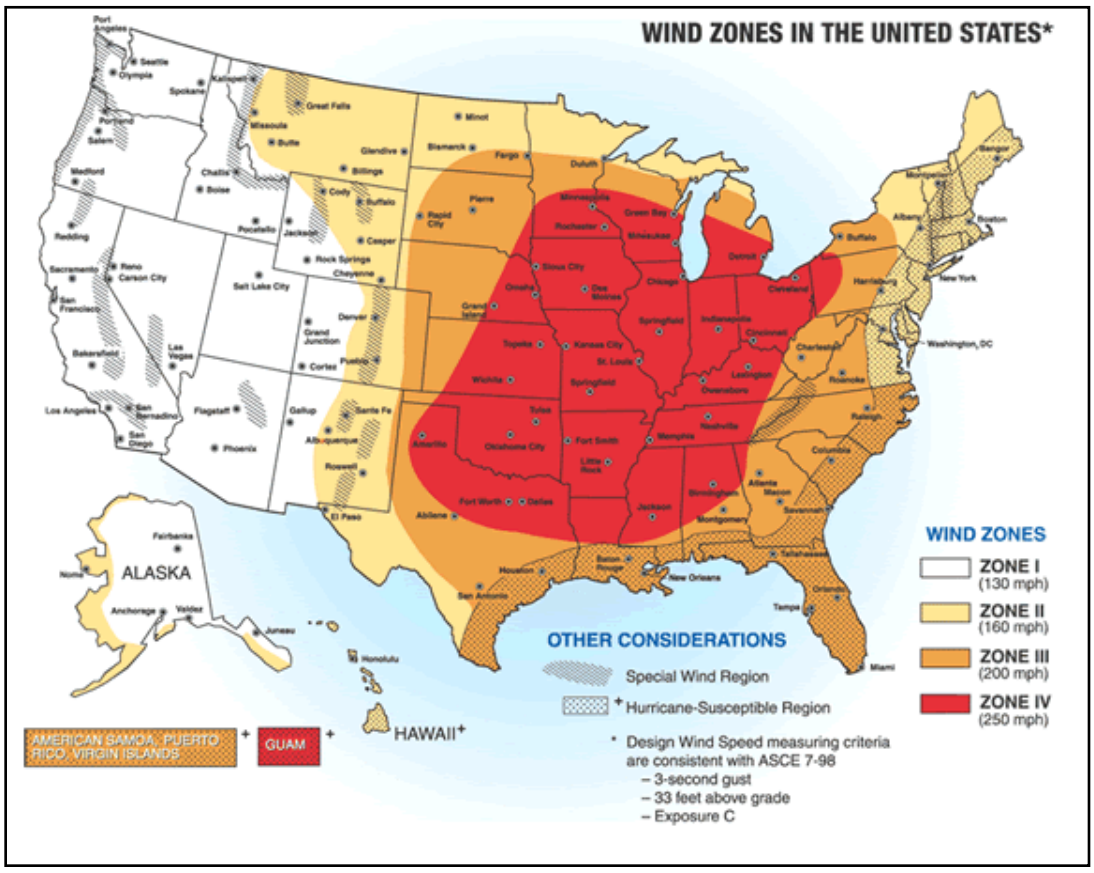

Figure 2-41: Wind Zones in the United States, FEMA, 2012

2.21.3 Extent

Thunderstorms and Lightning

Worldwide, there are an estimated 16 million thunderstorms each year, and at any given moment, there are roughly 2,000 thunderstorms in progress. There are about 100,000 thunderstorms each year in the U.S. alone. About 10% of these reach severe levels.[142] A Severe Thunderstorm is defined by the National Weather Service as a thunderstorm that produces a tornado, winds of at least 58 mph (50knots), and/or hail at least 1" in diameter. Structural wind damage may imply the occurrence of a severe thunderstorm. A thunderstorm wind equal to or greater than 40 mph (35 knots) and/or hail of at least 1" is defined as approaching severe.[143]

Hail

Hail can be produced from many different types of storms. Typically, hail occurs with thunderstorm events. The size of hail is estimated by comparing it to a known object. Most hailstorms are made up of a variety of sizes, and only the very largest hail stones pose

[142] https://www.nssl.noaa.gov/education/svrwx101/thunderstorms/
[143] http://w1.weather.gov/glossary/index.php?letter=s

serious risk to people, when exposed. Table 2-75 shows the different sizes of hail and the comparison to real-world objects.

Table 2-75: Hail Size, NOAA 2012

Size	Inches in Diameter
Pea	0.25 inch
Marble/mothball	0.50 inch
Dime/Penny	0.75 inch
Nickel	0.875 inch
Quarter	1.0 inch
Ping-Pong Ball	1.5 inches
Golf Ball	1.75 inches
Tennis Ball	2.5 inches
Baseball	2.75 inches
Tea Cup	3.0 inches
Grapefruit	4.0 inches
Softball	4.5 inches

Straight-Line Winds

Straight-line winds, winds that come out of a thunderstorm, in extreme cases, can cause wind gusts exceeding 100 mph. These winds are most responsible for hailstorm and thunderstorm wind damage. Windstorms have been known to cause damage to utilities. The predicted wind speed given in wind warnings issued by the NWS is for a one-minute average; gusts may be 25% to 30% higher.

The NWS issues advisories, watches, and warnings for winds. A wind advisory is defined as sustained winds 25 to 39 mph and/or gusts of 46 to 57 mph. Issuance is normally site-specific. High wind advisories, watches, and warnings are products issued by the NWS when wind speeds may pose a hazard or are life threatening. The criterion for each of these varies from state to state (NWS 2010).

2.21.4 Primary and Secondary Impacts

Severe thunderstorms, like tornadoes, are often accompanied by strong winds and hail. Both of these hazards have the potential to damage critical infrastructure. Additionally, flash flooding, particularly in low lying areas, is a secondary effect of thunderstorms as intense rain often accompanies thunderstorms.

The most significant secondary hazard of high wind storms is utility failure resulting from downed power lines and tree branches. As noted, high wind storms can cause localized or regional power outages, thus leading to exposure extreme temperatures for vulnerable populations. An example was the widespread power outages following Superstorm Sandy

and the exceptionally cold temperatures which led counties to open additional shelter place for displaced residents. An additional secondary hazard is traffic accidents that may occur when power to traffic control devices is disrupted.

Hailstorms, like many of the other hazards discussed, are often accompanied by other severe weather. One secondary effect of hailstorms is the damage to critical infrastructure which in turn may lead to utility failure. Additionally, extreme hailstorms impact traffic route and may lead to transportation accidents.

2.21.5 Severity

The most common problems associated with severe storms (thunderstorms) are immobility and loss of utilities. Fatalities are uncommon, but can occur due to lightning strikes. Roads may become impassable due to flooding, downed trees, or a landslide. Power lines may be downed due to high winds, and services such as water or phone may be disrupted. Lightning can cause severe damage and injury. Wind storms can be a frequent problem and have caused damage to utilities. Wind storms, as mentioned previously, may occur as part of thunderstorms or independently. The predicted wind speed given in wind warnings issued by the NWS is for a one-minute average; gusts may be 25 to 30% higher.

The severity of hail is measured by duration, hail size, and geographic extent. All of these factors are directly related to thunderstorms, which creates hail. There is wide potential variation in these severity components. The most significant impact of hail is damage to crops. Hail also has the potential to damage structures and vehicles during hailstorms. The State has a relatively low potential for significant hail events, based on previous records.

2.21.6 Warning Time

Meteorologists can often predict the likelihood of a severe thunderstorm and hailstorms. This can give several days warning. However, meteorologists cannot predict the exact time of onset, specific location, or the severity of the storm. Some storms may come on more quickly and have only a few hours of warning time. Like a Tornado Warning, the Severe Thunderstorm Warning is issued by your National Weather Service Forecast Office (NWFO). Severe Thunderstorm Warnings will include where the storm was located, what towns will be affected by the severe thunderstorm, and the primary threat associated with the severe thunderstorm warning. If the severe thunderstorm will affect the nearshore or coastal waters, it will be issued as the combined product--Severe Thunderstorm Warning and Special Marine Warning. If the severe thunderstorm is also causing torrential rains, this warning may also be combined with a Flash Flood Warning. If there is an ampersand (&) symbol at the bottom of the warning, it indicates that the warning was issued as a result of a severe weather report.

After it has been issued, the affected NWFO will follow it up periodically with Severe Weather Statements. These statements will contain updated information on the severe thunderstorm and they will also let the public know when the warning is no longer in effect.

A Severe Thunderstorm Watch is issued by the National Weather Service when conditions are favorable for the development of severe thunderstorms in and close to the watch area. A

severe thunderstorm by definition is a thunderstorm that produces one inch hail or larger in diameter and/or winds equal or exceed 58 miles an hour. The size of the watch can vary depending on the weather situation. They are usually issued for a duration of 4 to 8 hours. They are normally issued well in advance of the actual occurrence of severe weather. During the watch, people should review severe thunderstorm safety rules and be prepared to move a place of safety if threatening weather approaches.

A Severe Thunderstorm Watch is issued by the Storm Prediction Center in Norman, Oklahoma. Prior to the issuance of a Severe Thunderstorm Watch, SPC will usually contact the affected local National Weather Service Forecast Office (NWFO) and they will discuss what their current thinking is on the weather situation. Afterwards, SPC will issue a preliminary Severe Thunderstorm Watch and then the affected NWFO will then adjust the watch (adding or eliminating counties/parishes) and then issue it to the public by way of a Watch Redefining Statement. During the watch, the NWFO will keep the public informed on what is happening in the watch area and also let the public know when the watch has expired or been cancelled.

A Severe Thunderstorm Warning is issued when either a severe thunderstorm is indicated by the WSR-88D radar or a spotter reports a thunderstorm producing hail one inch or larger in diameter and/or winds equal or exceed 58 miles an hour; therefore, people in the affected area should seek safe shelter immediately. Severe thunderstorms can produce tornadoes with little or no advance warning. Lightning frequency is not a criteria for issuing a severe thunderstorm warning. They are usually issued for a duration of one hour. They can be issued without a Severe Thunderstorm Watch being already in effect.

2.21.7 Previous Occurrences and Losses

The entire State of Connecticut is vulnerable to thunderstorms and their impacts. The NCEI database was used to identify thunderstorms that occurred in the State between January 1955 and December 2017. It should be noted that the database does not categorize thunderstorms as storm events, but it does categorize thunderstorm characteristics. To create

Table 2-76, the following thunderstorm characteristics were searched: hail, high wind, lightning, strong wind, and thunderstorm wind. According to NCEI storm events records, there were at least 4 fatalities and 160 injuries reported within the state between January 1955 and December 2017. The thunderstorm related hazards used in this analysis are defined as:

- Hail - Frozen precipitation in the form of balls or irregular lumps of ice.
- High wind - Sustained non-convective winds of 35 knots (40 mph) or greater lasting for 1 hour or longer, or gusts of 50 knots (58 mph) or greater for any duration (or otherwise locally/regionally defined).
- Lightning - A sudden electrical discharge from a thunderstorm, resulting in a fatality, injury, and/or damage.
- Strong wind - Non-convective winds gusting less than 50 knots (58 mph), or sustained winds less than 35 knots (40 mph), resulting in a fatality, injury, or damage.
- Thunderstorm Winds - Winds, arising from convection (occurring within 30 minutes of lightning being observed or detected), with speeds of at least 50 knots (58 mph), or winds of any speed (non-severe thunderstorm winds below 50 knots) producing a fatality, injury, or damage.

Table 2-76 provides a summary of historic thunderstorm events, by county, that occurred in the State. It should be noted that many sources provided historical information regarding previous occurrences and losses associated with tornadoes that impacted the State of Connecticut. With many sources reviewed for the purpose of this HMP update, loss and impact information could vary depending on the source. Therefore, accuracy of monetary figures discussed is based only on the available information identified during research for this HMP update.

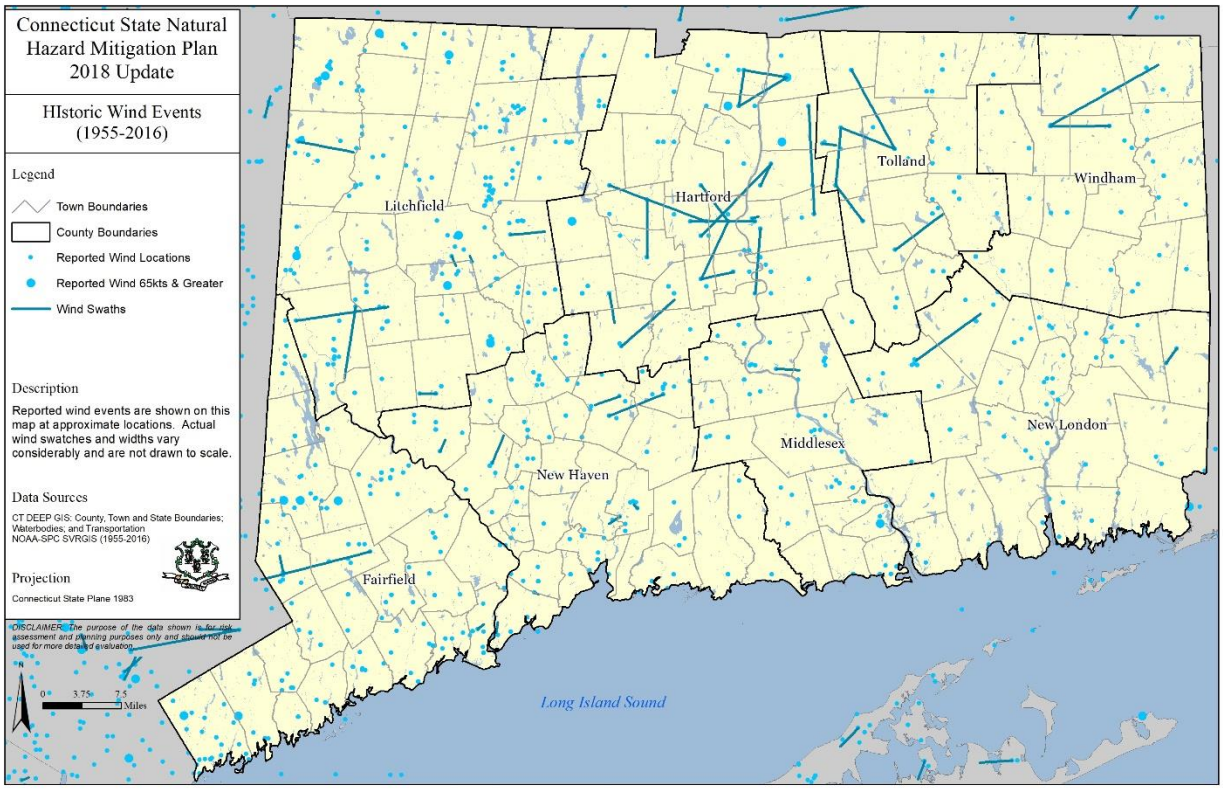

Figure 2-42 shows the locations and tracks of historic wind events in Connecticut from 1955 to 2016.

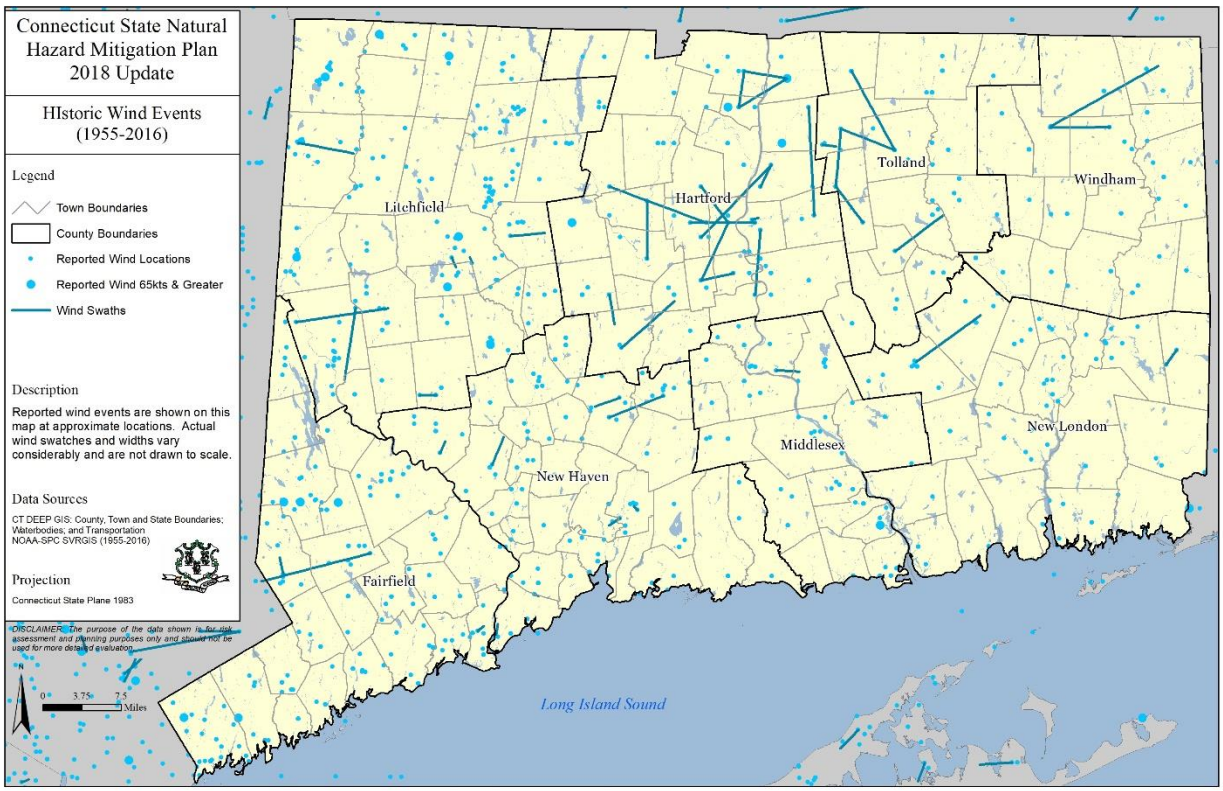

Figure 2-42: Historic Wind Events, Connecticut and Adjacent States

Table 2-76: NCEI Total Thunderstorm Events, 1950 – 2017, Adjusted to 2017 Dollars

County	Number of Events	Number of Injuries	Number of Deaths	Property Damages	Crop Damages
Fairfield	525	58	2	$14,535,986	$0.00
Hartford	571	33	0	$7,583,758	$0.00
Litchfield	593	17	1	$3,518,514	$45,705
Middlesex	186	4	0	$1,058,327	$0.00
New Haven	424	19	1	$3,346,215	$0.00
New London	247	21	0	$3,088,788	$0.00
Tolland	250	5	0	$2,386,188	$0.00
Windham	199	3	0	$1,765,217	$0.00
Total	**	160	4	$37,282,991	$45,705

*Note: *Number of Injuries and Deaths are reported by NWS as zonal events and as a result the individual jurisdiction totals are not cumulative for the state.*
***Event totals were not included because NCEI events may be counted more than once if one storm event affects multiple counties. This duplication renders totaling by county inaccurate.*

Some of the most notable thunderstorm events in recent history in the state of Connecticut in terms of deaths, injuries, and/or property damages include the following (dollar values listed in the descriptions below are not adjusted for inflation):

1. October 19, 1996: a strong low-pressure system developed on a cold front over the DelMarVa Peninsula resulting in strong winds. With a high pressure system in place across Northern New England, the low intensified and moved slowly off the Southern New Jersey Coast. As the difference in pressures increased, strong and gusty east winds developed across the region. Strong gusty winds and torrential rain combined to down trees and power lines. In New Canaan (Southern Fairfield County), a 40 year old man died when a tree fell on the pick-up truck he was driving on Route 23. His 13 year old daughter was treated for injury. High winds downed numerous trees and power lines from Greenwich east to Norwalk, including New Canaan. At Bridgeport Airport, the peak wind gust was 56 mph. High winds combined with high tides wrecked at least $1 million worth of sail and power boats torn from the moorings off Wilson Cove. More than a dozen luxury yachts and assorted smaller boats were smashed against private sea walls and the Bell Island Bridge in Bell Island. In Southern New Haven County, the peak wind gust measured at Outer Island was 58 mph. In New Haven, a woman was taken to St. Raphael's hospital with minor injuries after being struck by a falling tree limb.

2. June 24, 2010: A cold front and strong upper level trough moved across the Tri-State, triggering severe thunderstorms across Southwest Connecticut. Including both supercells and squall lines, producing an EF-1 tornado with 100 mph winds in Bridgeport area just north of Interstate 95. In Bridgeport, straight line winds and the EF1 tornado, caused the collapse of 5 complete buildings, and damage to 9 other buildings. The winds also blew a billboard off an apartment building, blew out windows and off bricks from buildings, flipped over a tractor trailer on I-95 between

exits 27 and 28, flipped over cars on Route 25 between exits 3 and 4. Around two dozen people were displaced by the storm. Significant tree damage was reported throughout the Southwest, with some falling on houses.

3. October 29, 2012: Sandy, a hybrid storm with both tropical and extra-tropical characteristics, brought high winds and coastal flooding to southern New England. Record breaking high tides and wave action was combined with sustained winds of 40 to 60 mph and wind gusts of 80 to 90 mph. Emergency managers recommended mandatory evacuations of 362,000 people that lived in low lying areas. Widespread significant statewide power outages of 667,598 lasted up to 8 days. Subsection 2.72 and 2.75 include additional details on Superstorm Sandy.

4. May 27, 2014: An isolated thunderstorm moved southeast through Litchfield County during the late afternoon and early evening hours. The thunderstorm strengthened as it reached the southern portion of the county and produced a period of gusty winds, heavy rainfall and frequent cloud to ground lightning. The storm produced wind damage to trees and homes in the town of New Milford. Several roads were closed as a result of downed trees and power lines. In addition, schools in New Milford were closed the following day due to ongoing cleanup from the storm damage. A NWS Storm Survey determined that straight line winds produced winds up to 100 MPH. Unfortunately, one person in New Milford died due to electrocution as a result of downed wires falling on a vehicle. Up to 13,000 people through the area lost power as a result of the thunderstorms.

FEMA Disaster Declarations

Between 1954 and 2017, the State of Connecticut was included in 9 severe storm-related major disasters (DR) or emergency (EM) declarations classified as one or a combination of the following disaster types: severe storm, flooding, and tornadoes. Generally, these disasters cover a wide region of the State; therefore, they can impact many counties. However, not all counties were included in the disaster declarations as determined by FEMA.[144] Since the 2013 State HMP, Connecticut has not been included in any additional declarations.

2.21.8 Probability of Future Events

Due to the somewhat unpredictable nature (especially into the longer term) of damaging wind and thunderstorms in particular, it is difficult to quantitatively determine future probability of the hazard. Modeling of future occurrence is difficult and not practical for purposes of this plan. Instead, an examination of past events was performed using NCEI data that dates to 1950. Historically, thunderstorm events have occurred throughout the state, with more than 16 events expected in any given year, with western (Hartford, New Haven, Fairfield, and Litchfield) Connecticut experiencing the greatest number of events. Litchfield typically will experience over nine events annually while Middlesex and Windham may experience three events per year. Table 2-77 provides the annualized

[144] https://www.fema.gov/disasters

number of the combined thunderstorm categories by jurisdiction based on the NCEI historical record. The categories summarized include hail, high wind, lightning, strong wind, and thunderstorms.

Table 2-77: Annualized Events and Losses for Thunderstorms

County	Annualized Events	Annualized Damages
Fairfield	8.37	$230,730
Hartford	9.06	$120,377
Litchfield	9.41	$56,575
Middlesex	2.95	$16,799
New Haven	6.73	$53,115
New London	3.92	$49,028
Tolland	3.97	$37,876
Windham	3.16	$28,019
Total	*	$592,519

*Note: *annualized event totals were not included because NCEI events may be counted more than once if one storm event affects multiple counties. This duplication renders totals inaccurate.*

It is reasonable to assume that Connecticut will continue to experience thunderstorms and is considered to have a high probability of future events. Table 2-77 summarizes the probability of future events by county (annualized events). It is worth noting that the differences in the number of reported events may be significantly related to population and population density. Regardless, based on this analysis, it is clear that thunderstorms are a significant hazard to Connecticut.

In general, the pattern of occurrence and potential locations for tornadoes to occur in Connecticut is expected to remain relatively unchanged in the 21st Century. Based on NOAA's historical data, the northwest area of the state, namely Litchfield and Hartford counties, have the highest historical incidences of tornadoes and therefore may be considered to have a higher risk for the occurrence of future tornadoes. The second area of moderate to high risk based on historical occurrences is in Fairfield and New Haven counties. The counties of Middlesex, Tolland, and Windham have a moderate risk, while the counties of Windham and New London may be considered to have a low risk since tornadoes have historically occurred less frequently than in other counties in the state. More information on Tornado Hazards can be found in Section 1.25.

2.21.9 Climate Change Impacts

Connecticut's climate is changing. The state has warmed two to three degrees (F) in the last century. Throughout the northeastern United States, spring is arriving earlier and bringing more precipitation, heavy rainstorms are more frequent, and summers are hotter and drier. Sea level is rising, and severe storms increasingly cause floods that damage property and

infrastructure. In the coming decades, changing the climate is likely to increase flooding, harm ecosystems, disrupt farming, and increase some risks to human health.[145]

Major clusters of summertime thunderstorms in North America will grow larger, more intense, and more frequent later this century in a changing climate, unleashing far more rain and posing a greater threat of flooding across wide areas.[146] At century's end, the number of summertime storms that produce extreme downpours could increase by more than 400 percent across parts of the United States, including sections of the Gulf Coast, Atlantic Coast, and the Southwest. In addition, the intensity of individual extreme rainfall events could increase by as much as 70 percent in some areas.[147]

Thunderstorms and other heavy rainfall events are estimated to cause more than $20 billion of economic losses annually in the United States. Particularly damaging, and often deadly, are mesoscale convective systems (MSCs): clusters of thunderstorms that can extend for many dozens of miles and last for hours, producing flash floods, debris flows, landslides, high winds, and/or hail. The persistent storms over Houston in the wake of Hurricane Harvey were an example of an unusually powerful and long-lived MCS.[148]

Storms have become more intense in recent decades, and a number of scientific studies have shown that this trend is likely to continue as temperatures continue to warm. The reason, in large part, is that the atmosphere can hold more water as it gets warmer, thereby generating heavier rain.[148]

Modeling has found that the number of severe MCSs in North America more than tripled by the end of the (21st) century. Moreover, maximum rainfall rates became 15 to 40 percent heavier, and intense rainfall reached farther from the storm's center. As a result, severe MCSs increased throughout North America, particularly in the northeastern and mid-Atlantic states, as well as parts of Canada, where they are currently uncommon.[148]

The study also looked at the potential effect of particularly powerful MCSs on the densely populated Eastern Seaboard. It found, for example, that at the end of the century, intense MCSs over an area the size of New York City could drop 60 percent more rain than a severe present-day system. That amount is equivalent to adding six times the annual discharge of the Hudson River on top of a current extreme MCS in that area.[148]

Additionally, National Aeronautics and Space Administration (NASA) scientists suggest that the United States will face more severe thunderstorms in the future, with deadly lightning, damaging hail, and the potential for tornadoes in the event of climate change. A recent study conducted by NASA predicts that smaller storm events like thunderstorms will also be more dangerous due to climate change.[149]

[145] https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/climate-change-ct.pdf
[146] https://www2.ucar.edu/atmosnews/news/130085/north-american-storm-clusters-could-produce-80-percent-more-rain
[147] https://www2.ucar.edu/atmosnews/news/124334/extreme-downpours-could-increase-fivefold-across-parts-us
[148] https://www2.ucar.edu/atmosnews/news/130085/north-american-storm-clusters-could-produce-80-percent-more-rain
[149] https://climate.nasa.gov/news/897/severe-thunderstorms-and-climate-change/

2.22 Thunderstorm Vulnerability Assessment

To understand risk, the assets exposed to hazards must be identified. Certain areas are more vulnerable to specific thunderstorm-related events than others due to geographic location and local weather patterns. For thunderstorm hazard, the entire State of Connecticut is exposed. Therefore, all State assets are potentially vulnerable.

Wind poses a threat to Connecticut in many forms, including that produced by severe thunderstorms and tropical weather systems. The effects can include blowing debris, interruptions in elevated power and communications utilities and intensified effects of winter weather. Harm to people and animals as well as damage to property and infrastructure may be the result.

Building construction, location, and nearby trees or other tall structures will have a large impact on how vulnerable an individual facility is to a lightning strike. A rough estimate of a structure's likelihood of being struck by lightning can be calculated using the structure's ground surface area, height, and striking distance between the downward-moving tip of the stepped leader (negatively charged channel jumping from cloud to earth) and the object.[150] In general, buildings are more likely to be struck by lightning if they are located on high ground or if they have tall protrusions such as steeples or poles which the stepped leader can jump to. Electrical and communications utilities are also vulnerable to direct lightning strikes. Damage to these lines has the potential to cause power and communications outages for businesses, residencies, and critical facilities.

[150] Hasbrouck, P.E. *Determining the Probability of Lightning Striking a Facility*, National Lightning Safety Institute, http://lightningsafety.com/nlsi_lhm/prbshort.html (April 2004).

Structure vulnerability to hail is determined mainly by construction and exposure. Metal siding and roofing is better able to stand up to the damages of a hailstorm than many other materials, although it may also be damaged by denting. Exposed windows and vehicles are also susceptible to damage. Crops are extremely susceptible to hailstorm damage, as even the smallest hail stones can rip apart unsheltered vegetation.

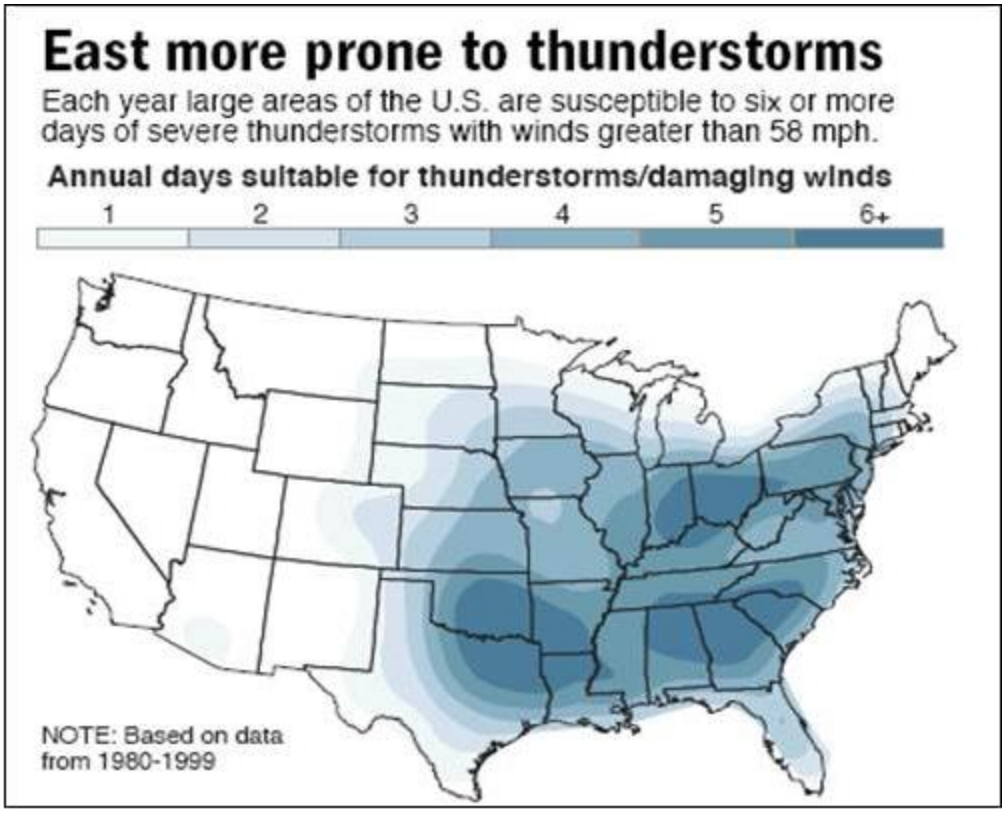

Figure 2-43: Annual Days Suitable for Thunderstorms / Damaging Winds

Human vulnerability is largely determined by the availability and reception of early warnings for the approach of severe storms, and by the availability of nearby shelter. Individuals who immediately seek shelter in a sturdy building or metal-roofed vehicle are much safer than those who remain outdoors. Early warnings of severe storms are also vital for aircraft flying through the area.

Table 2-76 gave a breakdown of injuries and deaths attributed to thunderstorms in Connecticut between 1955 and 2017. Fairfield County tops the list with 72 injuries.

As discussed above, risk, as defined as probability multiplied by impact, cannot be fully estimated for damaging winds due to the lack of intensity-damage models for this hazard. Instead, financial impacts of damaging winds can be analyzed based on NCEI Storm Events data. Using this data, which was displayed above in Table 2-77, total damage related to thunderstorm wind, hail, lightning, high wind, and strong wind events totaled nearly $143,898,000 or $2,320,935 annually. Fairfield County has the highest annualized losses at $344,097, with Hartford County following with an average of $320,274 in annual damages. These estimates are believed to be an underrepresentation of the actual losses experienced due to hazards as losses from events that go unreported or that are difficult to quantify are not likely to appear in the NCEI database.

Table 2-5 includes the number of state infrastructure/facilities, building value and contents value by municipality. There are 3,327 mapped state-owned facilities. Based on a combination of the 2013 JESTIR database and Connecticut Open Data, the estimated total value of state buildings is $5.6 billion, with over $866 million in content value. The State's total building and contents value only includes those buildings where value information was available and is intent for use in this plan and should not be used for other applications. The state contains 1,940 identified critical facilities in the categories of correctional institutions, EMS facilities, fire stations, gas stations with generator, health departments, law enforcement facilities, municipal solid waste, nuclear power plants, and storage tank farms. 1,846 of these critical facilities were able to be geospatially mapped for analysis.

For the purposes of this 2019 Plan update, all State buildings and local assets are exposed to thunderstorm-related events. As the State of Connecticut continues to become more urbanized, the State facilities will need to be developed in locations that will serve the growing population.

2.22.1 Assessment of State Vulnerability and Potential Losses

Thunderstorms and Lightning

All of the State-owned and -leased buildings may be exposed to the effects of thunderstorms. Thunderstorms will often be accompanied by high winds and sometimes hail. Losses related to thunderstorms primarily will be structural when falling or projectile debris impacts state-owned buildings.

According to NOAA's Technical Paper on *Lightning Fatalities, Injuries, and Damage Reports in the United States from 1959 - 1994*, monetary losses for lightning events range from less than $50 to greater than $5 million. The larger losses are associated with forest fires with homes destroyed and crop loss (NOAA 1997). Lightning can be responsible for damages to buildings; cause electrical, forest and/or wildfires; and damage infrastructure such as power transmission lines and communication towers.

Hail

Similar to thunderstorms, hail may affect all state-owned and –leased buildings across Connecticut. Damages will result from the hail stones themselves and will have a specific impact on roofs of state facilities. The extent of damage will depend on the size and extent of the hailstorm. The primary impact of hailstorms is to the agricultural industry (crops and livestock).

As for hailstorms, they cause considerable damage to United States crops and property, occasionally causes death to farm animals, but seldom causes loss of human life. All counties are considered vulnerable to the effects of hailstorms, but those with farmland and high agricultural yields are more likely to be impacted. According to the 2012 United States Department of Agriculture's Agricultural Census, the State of Connecticut has 5,977 farms equaling 436,539 acres. Of this Fairfield County has 439 farms at 53,948 acres, Harford County has 899 farms at 54,062 acres, Litchfield County has 1,207 farms at 90,963 acres, Middlesex County has 518 farms at 24,070, New Haven County has 695 farms at 42,309 acres, New London County has 949 farms at 65,159 acres, Tolland County has 578 farms at 47,764 acres, and Windham County has 692 farms at 58,264 acres.[151]

Straight-Line Winds

Damage to buildings is dependent upon several factors including wind speed and duration, and building construction. Refer to the Tropical Cyclone Vulnerability Assessment (Section 1.27) for the vulnerability to wind-related damages.

Critical facilities, legacy structures and infrastructure throughout the state may be vulnerable to strong winds. In particular, structures that were built before building codes and use of construction design wind speeds and corresponding zones (Figure 3) may be vulnerable to wind damage. Critical and state facilities in western Connecticut can be assumed to be at a slightly greater risk due to thunderstorm related events.

Impacts to transportation lifelines affect both short-term (e.g., evacuation activities) and long-term (e.g., day-to-day commuting and goods transport) transportation needs. Utility infrastructure (power lines, gas lines, electrical systems) could suffer damage and impacts can result in the loss of power, which can impact business operations and can impact heating or cooling provision to the population. The impacted population can include the young and elderly, who are particularly vulnerable to temperature-related health impacts. Post-event, there is a risk of fire, electrocution or explosion.

Generally speaking, structures should be designed to withstand the total wind load of the zone in which they are located. Refer to the State Building Code for appropriate reference wind pressures, wind forces on roofs, and other relevant codes.

2.22.2 Assessment of Local Vulnerability and Potential Losses

This section discusses the vulnerability of jurisdictions to areas susceptible to thunderstorms. As stated above in the State Vulnerability and Potential Losses, the entire

[151] https://www.agcensus.usda.gov/Publications/2012/Online_Resources/County_Profiles/Connecticut/

State is exposed to thunderstorm-related events. This includes the entire State population (3,574,097 people according to the 2010 U.S. Census).

Thunderstorms and Lighting

Agricultural losses can be devastating due to lightning and resulting fires.

Table 2-78 summarizes the potential monetary loss of crops in each county. The counties with the amount of high value crop types have the highest potential loss due to storms. Windham and New London Counties have the highest amount of potential monetary crop loss.

Table 2-78: USDA Agricultural Statistics for Connecticut

County	Number of Farms	% of Total Farms in State	Land in Farms (acres)	Market Value of Products Sold
Fairfield	439	7.3	53,948	$34,820,000
New Haven	695	15.0	42,309	$84,620,000
Hartford	899	20.2	54,062	$113,896,000
New London	949	8.7	65,159	$118,331,000
Litchfield	1,207	11.6	90,963	$46,281,000
Tolland	578	15.9	47,764	$54,972,000
Middlesex	518	9.7	24,070	$53,487,000
Windham	692	11.6	58,264	444,212,000
Total	**5,977**	**100%**	**436,539**	**$550,620,000**

Hail

As discussed above, all Counties are considered vulnerable to the effects of hailstorms, but those with farmland and high agricultural yields are more likely to be impacts. According to the 2012 USDA's Agricultural Census, Windham and New London Counties have the highest amount of potential monetary crop loss.

Straight-Line Winds

Straight-line wind events may threaten life safety, damage buildings and impact the economy, including: loss of business function, damage to inventory, relocation costs, wage loss, and rental loss due to the repair/replacement of buildings. Recovery and clean-up costs can also be costly and impact the economy as well.

Because of differences in building construction, residential structures are generally more susceptible to wind damage than commercial and industrial structures. Wood and masonry buildings in general, regardless of their occupancy class, tend to experience more damage than concrete or steel buildings. High-rise buildings are also vulnerable structures. Mobile homes are the most vulnerable to damage, even if tied down, and offer little protection to people inside.

2.22.3 Changes in Development

An understanding of population and development trends can assist in planning for future development and ensuring that appropriate mitigation, planning, and preparedness measures are in place. The State considered the following factors to examine previous and potential conditions that may affect hazard vulnerability:

- Potential or projected development
- Projected changes in population
- Other identified conditions as relevant and appropriate

Since the entire State is exposed to thunder-storm related events, any new development and increases in population will be vulnerable to the impacts from these events. As discussed in Section 1.2.4 (Land Use and Development), Fairfield County and Hartford County continue to see the majority of development. As of 2016, approximately 65.7% of the building permits statewide were in Fairfield and Hartford Counties, and both of these counties accounted for nearly half of all the housing units in the State. If recent trends in development continue, these two Counties will continually increase their vulnerability to thunderstorm-related events. Statewide, there is an estimated 2.2% change in population expected between 2020 and 2040; the increases in population will increase the State population's vulnerability to thunderstorm-related events.

2.22.4 Hazard Ranking

Quantitative risk assessment, to the degree possible, has been completed for thunderstorms using the methodology described in the Hazard Analysis and Ranking methodology Section 2.6 of this chapter. Scores for each jurisdiction were calculated based on population, building permits, geographic extent, average score from local plan rankings, average hazard concern, and measures of historical impact including injuries and deaths, property damage, and the number of reported events. The number of impacted critical facilities was also incorporated, and ranked based on the number of facilities impacted in relation to the number of total critical facilities in Connecticut. As shown in

Table 2-79, the composite thunderstorm rank shows Fairfield, Hartford, Litchfield, and New Haven Counties as high risk; New London County as medium-high risk; and Middlesex, Tolland, and Windham Counties as medium risk.

Table 2-79: Hazard Ranking by County for Thunderstorms

County	Hazard Concern Rank	Local Plans Hazard Rank	Geographic Extent Rank	Population Density Rank	Building Permits Rank	Facility Intersect Rank	Ann. Events Rank	Ann. Losses Rank	Injury & Death Rank	Composite Ranks
Fairfield	Medium-High	Medium	Low	High	High	Medium	Medium	Low	Low	**Medium-Low**
Hartford	Medium-High	Medium	Low	High	High	High	Medium-High	Low	Low	**Medium**
Litchfield	Medium-High	Medium	High	Low	Low	Medium-High	Medium-High	Low	Low	**Medium**
Middlesex	Medium-High	Medium	Low	Medium-Low	Medium-Low	Medium	Medium	Low	Low	**Medium-Low**
New Haven	Medium-High	Medium	Low	High	Medium	Medium-High	Medium	Low	Low	**Medium-Low**
New London	Medium-High	Medium	Low	Medium-Low	Medium-Low	Medium	Medium	Low	Low	**Medium-Low**
Tolland	Medium-High	Medium	High	Medium-Low	Medium-Low	Medium-High	Medium-Low	Low	Low	**Medium**
Windham	Medium-High	Medium	High	Medium-Low	Low	Medium-High	Medium-Low	Low	Low	**Medium**

2.23 Tornado Hazard Profile

2019 Plan Update Changes

- The hazard profile has been significantly enhanced to include a detailed hazard description, location, extent, impact (severity, warning time and secondary impacts), previous occurrences, probability of future occurrence, and potential change in climate and its impacts on the tornado hazard is discussed
- New and updated figures from federal and state agencies are incorporated. U.S. 2010 Census data was incorporated, where appropriate
- Previous occurrences were updated with events that occurred between 2013 and 2018

2.23.1 Hazard Description

Tornadoes are nature's most violent storms and can cause fatalities and devastate neighborhoods in seconds. A tornado appears as a rotating, funnel-shaped cloud that extends from a thunderstorm to the ground with whirling winds that can reach 250 mph. Damage paths can be greater than one mile in width and 50 miles in length. Tornadoes typically develop from either a severe thunderstorm or hurricane as cool air rapidly overrides a layer of warm air. Tornadoes typically move at speeds between 30 and 125 mph

and can generate internal winds exceeding 300 mph. The lifespan of a tornado rarely is longer than 30 minutes.[152]

Tornadoes develop from mainly two types of thunderstorms: supercell and non-supercell. The most common, and often most dangerous, are tornadoes produced by supercell thunderstorms. NOAA defines this type of tornado as, "a long lived (greater than 1 hour) and highly organized storm feeding off an updraft that is tilted and rotating." Non-supercell tornadoes are circulations that do not form from organized storm-scale rotation. There are two types of non-supercell thunderstorm tornadoes:

- Gustnado – a whirl of dust or debris at or near the ground with no condensation tunnel; and

- Landspout – a narrow rope-like condensation funnel that forms when the thunderstorm cloud is still growing and there is no rotating updraft (the spinning motion originates near the ground). Waterspouts are similar to landspouts but occur over water rather than land.[153]

2.23.2 Location

Tornadoes have been documented in every state in the United States, and on every continent with the exception of Antarctica. Approximately 1,200 tornadoes occur in the United States each year, with the central portion of the country experiencing the most. Tornadoes can occur at any time of the year, with peak seasons at different times for different states.[154]

Because a tornado is part of a severe convective storm, and these storms occur all over the Earth, tornadoes are not limited to any specific geographic location. In fact, tornadoes have been documented in every state of the United States, and on every continent, with the exception of Antarctica (even there, a tornado occurrence is not impossible). In fact, wherever the atmospheric conditions are exactly right, the occurrence of a tornadic storm is possible.

However, some parts of the world are much more prone to tornadoes than others. Globally, the middle latitudes, between about 30° and 50° North or South, provide the most favorable environment for tornadogenesis. This is the region where cold, polar air meets against warmer, subtropical air, often generating convective precipitation along the collision boundaries. In addition, air in the midlatitudes often flows at different speeds and directions at different levels of the troposphere, facilitating the development of rotation within a storm cell. Interestingly, the places that receive the most frequent tornadoes are also considered the most fertile agricultural zones of the world. This is due in part to the high number of convective storms delivering needed precipitation to these areas. Simply because of the large number of convective storms and the favorable environment, the odds are increased that some of these storms will produce tornadoes. In terms of absolute

[152] FEMA. 1997. "Atmospheric Hazard." On-Line Address: http://www.fema.gov/media-library-data/20130726-1545-20490-1407/mhira_n1.txt
[153] https://www.nssl.noaa.gov/education/svrwx101/tornadoes/types/
[154] National Severe Storms Laboratory. 2013. "Severe Thunderstorm Climatology." National Oceanic & Atmospheric Administration. March 29. On-Line Address: http://www.nssl.noaa.gov/projects/hazard/index.html

tornado counts, the United States leads the list, with an average of over 1,000 tornadoes recorded each year.[155] As seen in Figure 2-44, the average annual number of tornadoes for Connecticut is two.

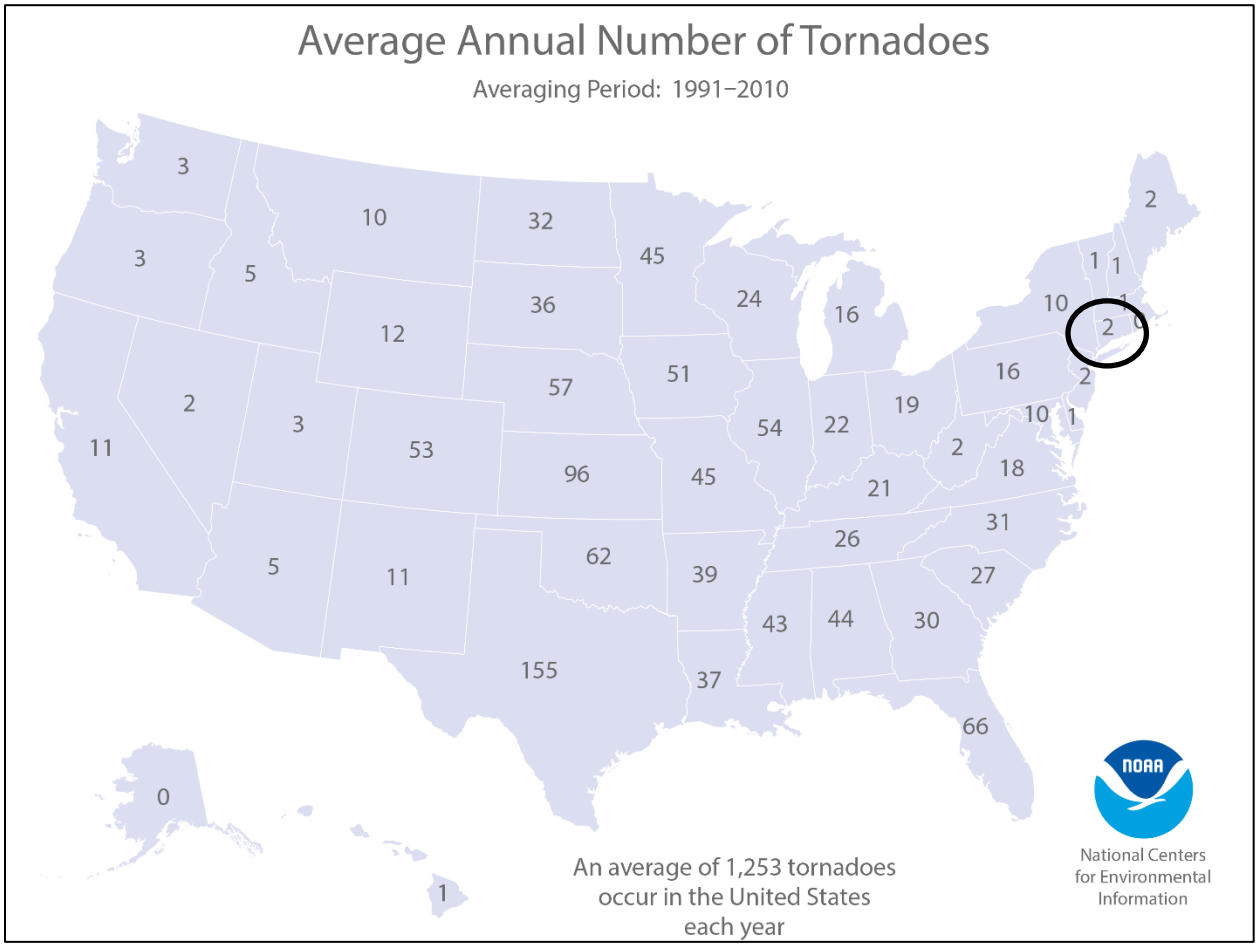

Figure 2-44: Average Annual Number of Tornados

Note: The black circle indicates the approximate location of Connecticut.

2.23.3 Extent

The magnitude or severity of a tornado was originally categorized using the Fujita Scale (F-Scale) or Pearson Fujita Scale introduced in 1971. This used to be the standard measurement for rating the strength of a tornado. The F-Scale categorized tornadoes by intensity and area and was divided into six categories, F0 (gale) to F5 (incredible).

[155] https://www.ncdc.noaa.gov/climate-information/extreme-events/us-tornado-climatology

Table 2-80 explains each of the six F-Scale categories.

Table 2-80: Fujita Damage Scale, Storm Prediction Center, NOAA

Scale	Wind Estimate (mph)	Typical Damage
F0	< 73	Light damage. Some damage to chimneys; branches broken off trees; shallow-rooted trees pushed over; sign boards damaged.
F1	73-112	Moderate damage. Peels surface off roofs; mobile homes pushed off foundations or overturned; moving autos blown off roads.
F2	113-157	Considerable damage. Roofs torn off frame houses; mobile homes demolished; boxcars overturned; large trees snapped or uprooted; light-object missiles generated; cars lifted off ground.
F3	158-206	Severe damage. Roofs and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted; heavy cars lifted off the ground and thrown.
F4	207-260	Devastating damage. Well-constructed houses leveled; structures with weak foundations blown away some distance; cars thrown and large missiles generated.
F5	261-318	Incredible damage. Strong frame houses leveled off foundations and swept away; automobile-sized missiles fly through the air in excess of 100 meters (109 yards); trees debarked; incredible phenomena occur.

The Enhanced Fujita Scale (EF-Scale) is now the standard used to measure the strength of a tornado. It is used to assign tornadoes a 'rating' based on estimated wind speeds and related damage. When tornado-related damage is surveyed, it is compared to a list of Damage Indicators (DI) and Degree of Damage (DOD), which help better estimate the range of wind speeds produced by the tornado. From that, a rating is assigned, similar to that of the F-Scale, with six categories from EF0 to EF5, representing increasing degrees of damage. The EF-Scale was revised from the original F-Scale to reflect better examinations of tornado damage surveys. This new scale considers how most structures are designed.[156]

[156] http://www.crh.noaa.gov/arx/efscale.php

Table 2-81 displays the EF-Scale and each of its six categories.

Table 2-81: Enhanced Fujita Damage Scale, NOAA

EF-Scale Number	Intensity Phrase	Wind Speed (mph)	Type of Damage Done
EF0	Light tornado	65–85	Light damage. Peels surface off some roofs; some damage to gutters or siding; branches broken off trees; shallow-rooted trees pushed over.
EF1	Moderate tornado	86-110	Moderate damage. Roofs severely stripped; mobile homes overturned or badly damaged; loss of exterior doors; windows and other glass broken.
EF2	Significant tornado	111-135	Considerable damage. Roofs torn off well-constructed houses; foundations of frame homes shifted; mobile homes completely destroyed; large trees snapped or uprooted; light-object missiles generated; cars lifted off ground.
EF3	Severe tornado	136-165	Severe damage. Entire stories of well-constructed houses destroyed; severe damage to large buildings such as shopping malls; trains overturned; trees debarked; heavy cars lifted off the ground and thrown; structures with weak foundations blown away some distance.
EF4	Devastating tornado	166-200	Devastating damage. Well-constructed houses and whole frame houses completely leveled; cars thrown and small missiles generated.
EF5	Incredible tornado	>200	Incredible damage. Strong frame houses leveled off foundations and swept away; automobile-sized missiles fly through the air in excess of 100 meters (109 yards); high-rise buildings have significant structural deformation; incredible phenomena occur.

The EF-Scale is a set of wind estimates, not measurements, based on damage. It uses three-second gusts estimated at the point of damage based on a judgement of eight levels of degrees of damage (DOD) to 28 damage indicators. As indicated in

Table 2-82, each indicator has a description of the typical construction for that category indicator and the eight DODs. Each DOD in each category is given an expected estimate of wind speed, a lower bound of wind speed, and an upper bound of wind speed. NOAA provides detailed information for each damage indicator on its website (http://www.spc.noaa.gov/efscale/ef-scale.html) such as average structure size, building construction and material characteristics, and damage descriptions per DOD.[157]

[157] http://www.spc.noaa.gov/efscale/ef-scale.html

Table 2-82: Damage Indicators for the EF Scale

Damage Indicator Number	Description of Typical Construction	Damage Indicator Number	Description of Typical Construction
1	Small barns or farm outbuildings (SBO)	15	School - 1-story elementary (interior or exterior halls) (ES)
2	One- or two-family residences (FR12)	16	School - jr. or sr. high school (JHSH)
3	Single-wide mobile home (MHSW)	17	Low-rise (1-4 story) bldg. (LRB)
4	Double-wide mobile home (MHDW)	18	Mid-rise (5-20 story) bldg. (MRB)
5	Apt, condo, townhouse (3 stories or less) (ACT)	19	High-rise (over 20 stories) (HRB)
6	Motel (M)	20	Institutional bldg. (hospital, govt. or university) (IB)
7	Masonry apt. or motel (MAM)	21	Metal building system (MBS)
8	Small retail bldg. (fast food) (SPB)	22	Service station canopy (SSC)
9	Small professional (doctor office, branch bank) (SPB)	23	Warehouse (tilt-up walls or heavy timber) (WHB)
10	Strip mall (SM)	24	Transmission line tower (TLT)
11	Large shopping mall (LSM)	25	Free-standing tower (FST)
12	Large, isolated ("big box") retail bldg. (LIRB)	26	Free standing pole (light, flag, luminary) (FSP)
13	Automobile showroom (ASR)	27	Tree – hardwood (TH)
14	Automotive service building (ASB)	28	Tree – softwood (TS)

2.23.4 Primary and Secondary Impacts

Like hurricanes, earthquakes, and floods, tornadoes can lead to massive destruction to homes, property, and infrastructure, and may lead to deaths and injuries. The following provides information regarding the severity, warning time, and secondary impacts a tornado may have.

Tornadoes have the potential to lead to widespread utility outages, downed trees, closed roadways, and damages to critical and essential infrastructure. Tornado events may also be accompanied by strong thunderstorms, straight-line winds, and hail which can lead to traffic accidents and flash flooding.

2.23.5 Severity

The high winds and air speeds of a tornado often result in power outages, disruptions to transportation corridors and equipment, significant property damage, injuries and loss of life, and the need to shelter and care for individuals impacted by the event. A large amount of damage can be inflicted by trees, branches and other objects that fall onto power lines, buildings, roads, and vehicles.

2.23.6 Warning Time

There are still many unknowns regarding tornadoes and their development such as (1) exactly when will a storm event trigger a tornado; (2) How do tornadoes dissipate; and (3) How does cloud-seeding affect tornado development. The National Weather Service (NWS) is the official agency that forecasts tornadoes nationwide. Tornado watches and warning are issued by the local NWS office. A tornado watch is released when tornadoes are possible in an area. A tornado warning means a tornado has been sighted or indicated by weather radar. The current average lead time for tornado warnings is 13 minutes. Occasionally, tornadoes develop so rapidly, that little, if any, advance warning is possible.[158]

Because most tornadoes are related to the strength of a thunderstorm, and thunderstorms normally gain most of their energy from solar heating and latent heat released by the condensation of water vapor, it is not surprising that most tornadoes occur in the afternoon and evening hours, with a minimum frequency around dawn (when temperatures are lowest and radiation deficits are highest). However, tornadoes have occurred at all hours of the day, and nighttime occurrences may give sleeping residents of a community little or no warning.[159] Figure 2-45 indicates the time of occurrence in the northeast climate region.

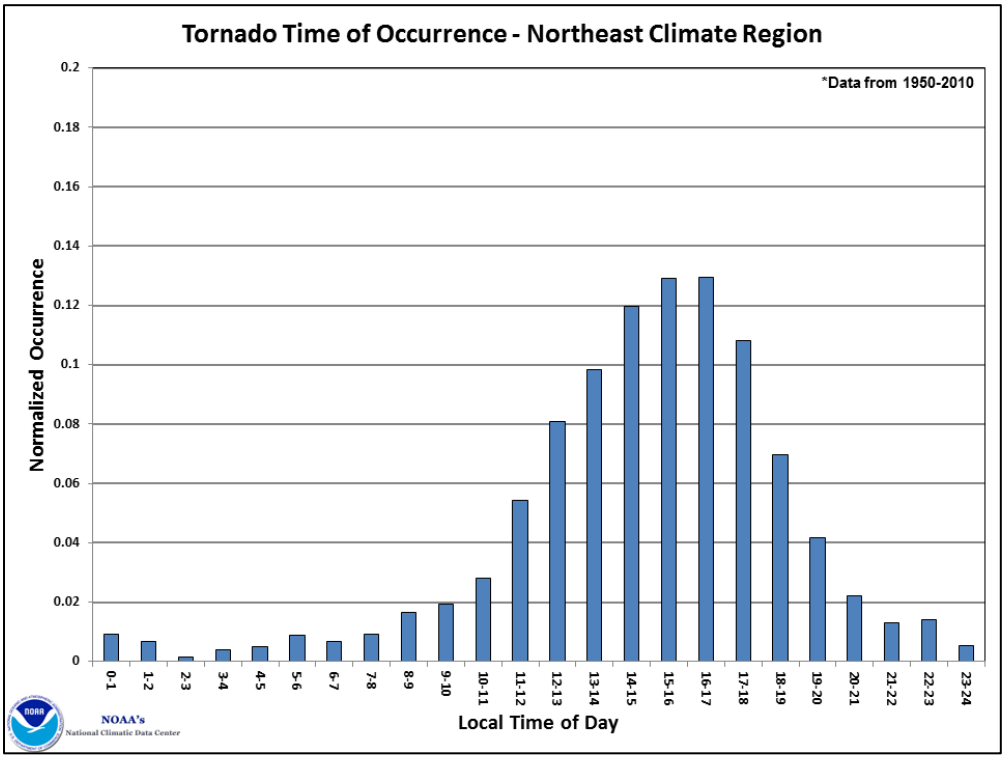

Figure 2-45: Tornado Time of Occurrence, Midwestern Regional Climate Center

[158] http://w1.weather.gov/glossary/
[159] https://www.ncdc.noaa.gov/climate-information/extreme-events/us-tornado-climatology/trends

2.23.7 Previous Occurrences and Losses

The entire State of Connecticut is vulnerable to tornadoes and their impacts. Between 1950 and 2018, the State has experienced 97 tornadoes that injured over 700 people, resulted in six deaths, and caused over $600 million in damages. The most tornado activity has been during the summer months (June through August). Figure 2-46 shows historic tornado tracks and magnitude from 1950 to 2016. Please refer to

Table 2-83 for a summary of tornado events, by county, that occurred in the State.

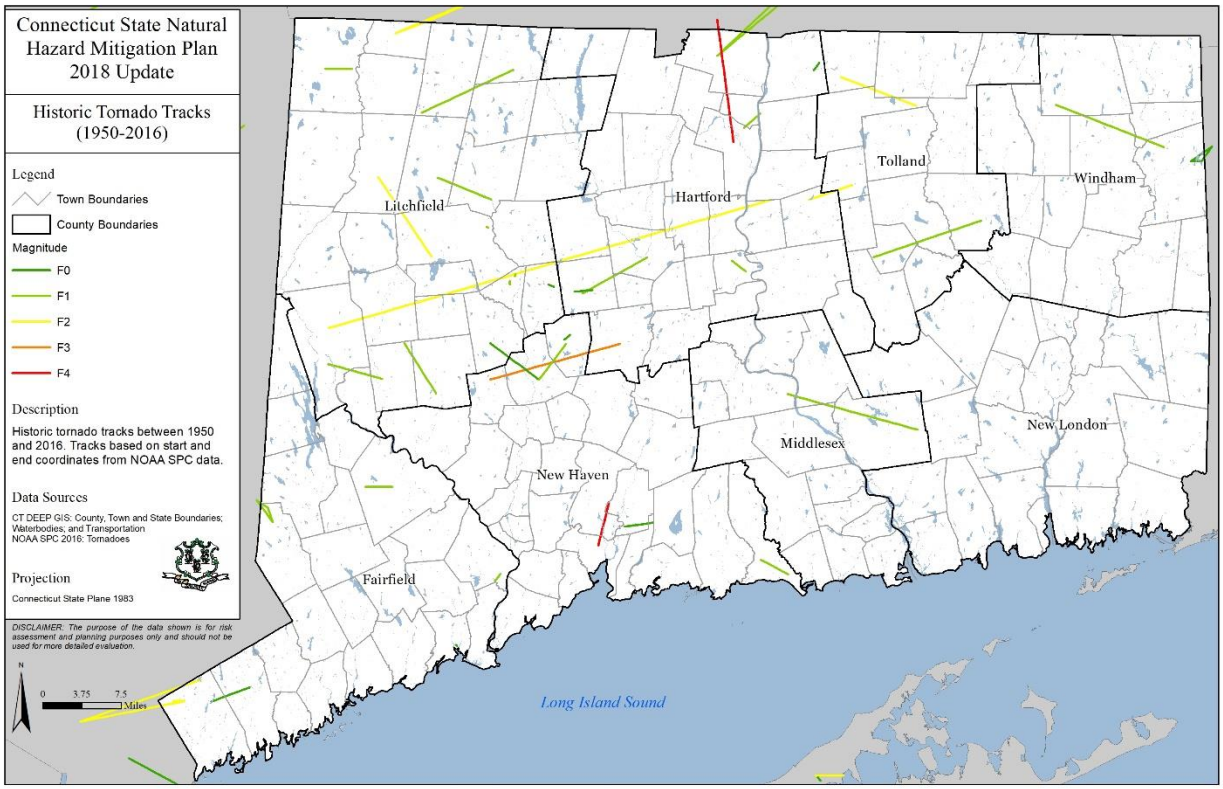

Figure 2-46 Historic Tornado Events in Connecticut, 1950 – 2016

Table 2-83: NCEI Total Tornado Events, 1950-2017

County	Number of Events	Number of Injuries	Number of Deaths	Property Damages (2017 Dollars)
Fairfield	13	13	0	$8,924,729
Hartford	19	502	3	$904,150,586
Litchfield	27	84	0	$106,087,265
Middlesex	8	8	0	$2,463,629
New Haven	14	92	3	$579,367,790
New London	1	0	0	$0.00
Tolland	11	4	0	$3,093,879
Windham	4	0	0	$5,802,369
Total	*	703	6	$1,609,890,248

**Note: event totals were not included because NCEI events may be counted more than once if one storm event affects multiple counties. This duplication renders totals inaccurate.*

It should be noted that many sources provided historical information regarding previous occurrences and losses associated with tornadoes that impacted the State of Connecticut. With many sources reviewed for the purpose of this HMP update, loss and impact information could vary depending on the source. Therefore, accuracy of monetary figures discussed is based only on the available information identified during research for this HMP update.

Some of the most notable tornado occurrences in recent history in the state of Connecticut in terms of deaths, injuries, and/or property damages include the following (dollar values listed in the descriptions below are not adjusted for inflation):

- July 14, 1950 – This F2 tornado in Fairfield County injured several people and resulted in an estimated $250,000 in property damages.
- August 21, 1951 – This F2 tornado in Litchfield County injured nine people and resulted in an estimated $250,000 in property damages.
- May 10, 1954 – This F3 tornado in Tolland County resulted in at least two injuries and $25,000 in property damages.
- September 7, 1958 – This F2 tornado resulted in at least two injuries and $250,000 in property damages.
- May 24, 1962 – This F3 tornado in New Haven County killed one person and injured 50 people. The tornado had an estimated path length of 11.6 miles and was estimated to be 120 feet in width. Damage estimates for this event range from $500,000 to $5 million.
- October 3, 1970 – This F1 tornado in Hartford County resulted in one injury.

- July 29, 1971 – This F3 tornado in New Haven County caused at least two injuries and at least $250,000 in property damages.

- June 28, 1973 – This F1 tornado in Hartford County resulted in one injury.

- October 3, 1979 (FEMA-DR-608) – This F4 tornado in Hartford County is the deadliest tornado on record to strike Connecticut according to NOAA. It had an estimated path length of 11.3 miles and an estimated width of 1,400 feet. Damages were estimated between $50 million and $500 million. Five hundred people were injured and three people died from this event. As a result of this tornado, two towns were declared Federal disaster areas.

- July 10, 1989 (FEMA-DR-837) – This F4 tornado cut a path through western Connecticut, from Salisbury to New Haven, in less than one hour. One person was reported as being killed, 110 people were injured, and 67 homes were destroyed. Damages totaled $125 million and a Presidential Disaster Declaration was issued.

- August 29, 1990 – This F0 tornado caused seven injuries in Fairfield County and caused several thousand dollars in damages.

- June 23, 2001 – This F1 tornado in Litchfield County caused at least one injury and at least $150,000 in property damages.

- June 26, 2009 – This EF1 tornado affected Wethersfield in Hartford County. On June 29, Governor M. Jodi Rell requested a FEMA preliminary damage assessment (PDA) as a result of the tornado, heavy winds, rain, and hail which were associated with severe thunderstorms on June 26. An estimated $750,000 in reported property damages were recorded by NCEI.

- July 31, 2009 – This EF1 tornado touched down in Madison in New Haven County and in Shelton in Fairfield County. An estimated $20,000 in property damages were reported between the two counties.

- June 24, 2010 – This EF1 tornado impacted Bridgeport in Fairfield County injuring three people and causing at least $3,200,000 in reported property damages, according to NCEI records.

- July 21, 2010 – This EF1 tornado impacted Hartford and Litchfield counties causing at least $584,000 in reported property damage, according to NCEI records. The tornado made brief touchdowns in Bristol in Hartford County and in East Litchfield, Thomaston, and Terryville in Litchfield County with damage mainly to hardwood and softwood trees.

- July 9, 2011 – A National Weather Service Storm Survey Team confirmed that a brief tornado touched down in Litchfield County. No damages were recorded as being associated with this EF1 tornado.

- July 1, 2013 - Three tornadoes touched down across the state; one in Fairfield County and two in Hartford County. Majority of impact limited to downed trees, though the EF1 caused notable structural damage near East Windsor

- July 10, 2013 - An EF1 tornado caused tree damage along an 11.2-mile (18.0 km) long intermittent path in Tolland County

- July 27, 2014 – A weak EF-0 tornado touched down in Wolcott in New Haven County causing $25,000 in property damage. Damage was done to trees, large fixed sports equipment at the local high school, a trailer and a home.

- August 10, 2016 – This EF-0 tornado caused $15,000 in property damage in Southern New Haven County. The property damage was mainly caused by trees that fell onto power lines and cars.

- May 15, 2018 - Two EF1 tornadoes led to widespread wind damage across southern Connecticut, resulting in power outages, blocked roadways, and school and business closures. The first of the tornados touched down in Southbury and continued southeast into Oxford, leaving a path of 4.2 miles and had wind gusts of 100 mph. The second tornado touched down in Beacon Falls and continued to move west to Hamden. It had maximum wind gusts of 110 mph while traveling a length of 9.5 miles.

FEMA Disaster Declarations

Between 1954 and 2018, Connecticut was included in three FEMA declared tornado-related disasters (DR) or emergencies (EM). Generally, these disasters cover a wide region of the State; therefore, they may have impacted many counties. Since the 2013 State HMP, Connecticut has had one tornado related declaration (DR4385).[160]

2.23.8 Probability of Future Events

Since tornadoes occur on such small spatial scales and are a product of current weather patterns (they can occur with very little warning), it is difficult to provide a detailed and highly specific predictive analysis for this type of hazard event.

[160] https://www.fema.gov/disasters

Table 2-84 summarizes the probability of future events by county (NCEI annualized events), which was used to analyze future probability and losses.

Table 2-84: NCEI Annualized Events and Losses for Tornado, 1950-2017

County	Annualized Events	Annualized Damages (2017 Dollars)
Fairfield	0.28	$131,246
Hartford	0.29	$13,296,332
Litchfield	0.47	$1,560,107
Middlesex	0.13	$36,230
New Haven	0.26	$8,520,115
New London	0.06	$0
Tolland	0.16	$45,498
Windham	0.04	$85,329
Total	*	$23,674,857

**Note: event totals were not included because NCEI events may be counted more than once if one storm event affects multiple counties. This duplication renders totals inaccurate.*

In general, the pattern of occurrence and potential locations for tornadoes to occur in Connecticut is expected to remain relatively unchanged in the 21st Century. Based on NOAA's historical data, the northwest area of the state, namely Litchfield and Hartford counties, have the highest historical incidences of tornadoes and therefore may be considered to have a higher risk for the occurrence of future tornadoes. The second area of moderate to high risk based on historical occurrences is in Fairfield and New Haven counties. The counties of Middlesex, Tolland, and Windham have a moderate risk, while the counties of Windham and New London may be considered to have a low risk since tornadoes have historically occurred less frequently than in other counties in the state.

2.23.9 Climate Change Impacts

In the United States, more than one-third of the $1 billion weather disasters over the last 25 years were due to tornado and severe thunderstorm events. Additionally, damages from these events have undergone the largest increase since 1980. While historic reporting of these events has been determined by visual sightings or post-storm damage assessments and that reporting has been susceptible to changes in population density, modifications to reporting procedures and training, the introduction of video and social media, and so on, judicious use of the report database has revealed important information about tornado trends. Since the 1970s, the United States has experienced a decrease in the number of days per year on which tornadoes occur, but an increase in the number of tornadoes that form on such days. One important implication is that the frequency of days with large numbers of tornadoes—tornado outbreaks—appears to be increasing. The extent of the season over which such tornado activity occurs is increasing as well: although tornadoes in the United States are observed in all months of the year, an earlier calendar-day start to the season of high activity is emerging. In general, there is more interannual variability, or volatility, in tornado occurrence.

Figure 2-47 shows the annual tornado activity in the United States over the period 1955-2013. The black squares indicate the number of days per year with at least one tornado

rated (E)F1 or greater, and the black circles and line show the decadal mean line of such tornado days. The red triangles indicate the number of days per year with more than 30 tornadoes rated (E)F1 or greater, and the red circles and line show the decadal mean of these tornado outbreaks.[161]

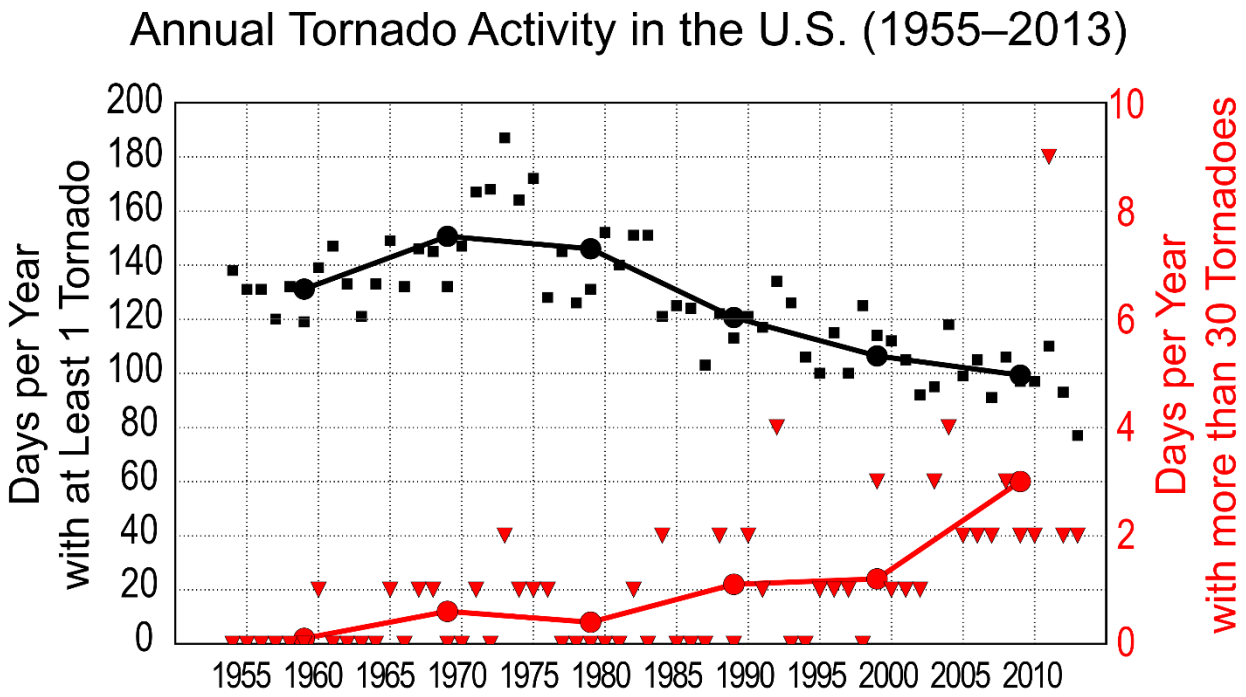

Figure 2-47: Annual Tornado Activity in the U.S., 1955 – 2013

2.24 Tornado Vulnerability Assessment

Tornadoes in Connecticut are expected to continue to occur more frequently in western and northwestern Connecticut, and less frequently in southeastern Connecticut. Although the frequency of tornadoes may be greater in western Connecticut, vulnerability may not be greatest in that part of the state due to relatively low population density. When the frequency and population density are combined, the highest vulnerability to damage exists in Hartford and New Haven counties. Even though tornadoes pose a real threat to public safety, their occurrence is not considered frequent enough in Connecticut to justify construction of tornado shelters at this time.

In lieu of a tornado shelter program, the State of Connecticut, through CT DEMHS, has chosen to provide NOAA weather radios to all public schools and many municipalities for use in local government buildings. These radios are tuned into the NWS radio frequencies. When weather warnings are given by the NWS, the schools and local communities receive immediate notification of a storm event. Based on the type of warning provided, residents

[161] Climate Science Special Report, Fourth National Climate Assessment (NCA4), Volume 1, Chapter 9: Extreme Storms

are advised to seek shelter or take appropriate precautions as directed by the NWS. NOAA radios have proven to be very popular with communities in Connecticut, as they serve to warn local populations of many types of weather events, not just tornado activity.

Advances in weather forecasting, use of Doppler radar and computer modeling have reduced the time for issuing tornado warnings and implementing tornado event preparations by local communities and the general public. However, warning times are still very short due to the nature of these types of events, and the impacts from tornado activity are still considered a significant threat to life and property.

The tornado risk for the 2019 update is based on probability of occurrence of past events. The density per 25-square miles indicates the probable number of tornado touchdowns for each 25-square mile cell within the contoured zone that can be expected over a similar period of record (nearly 70 years). It should be noted that the density number does not indicate the number of events that can be expected across the entire zone, but the percent probability of occurrence in the given area. The analysis indicated that the area at greatest risk for a tornado touchdown runs from southwestern to northern central Connecticut, with the greatest historical touch-down density located in predominately in Hartford County, Litchfield County, New Haven County, and Tolland County.

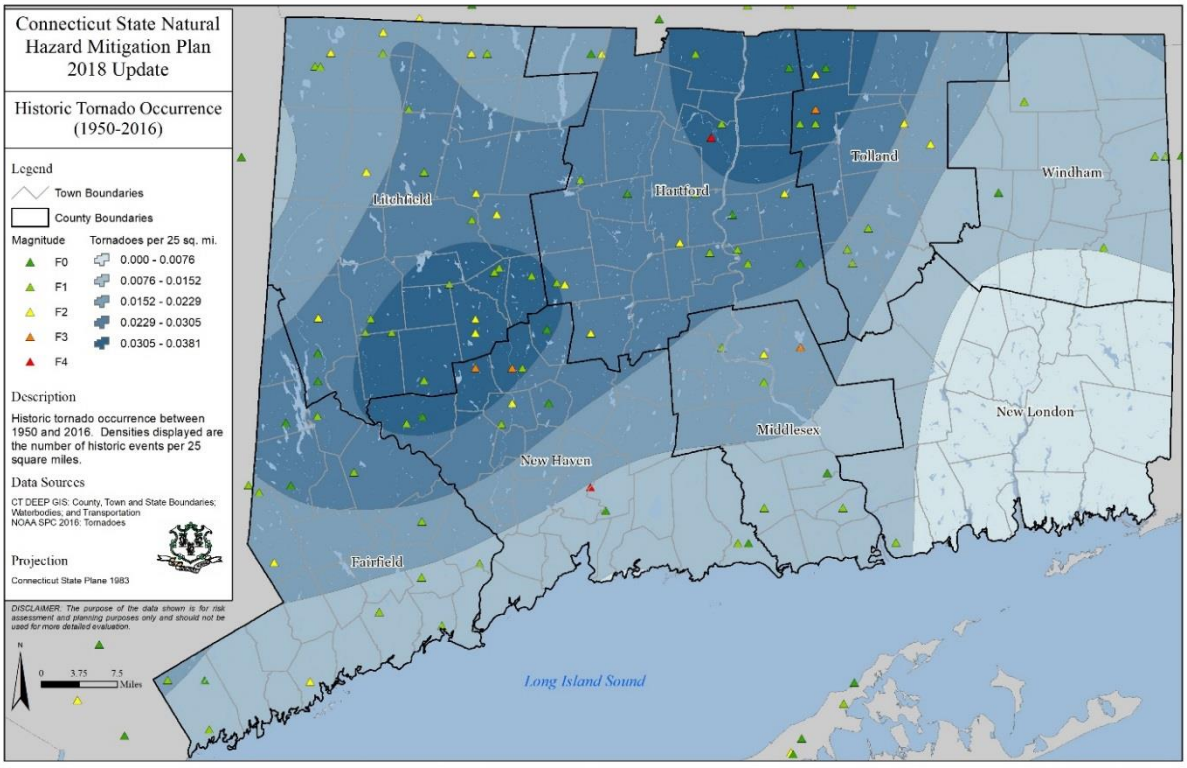

Figure 2-48 illustrates the reported tornado occurrences, based on initial touch-down locations across the State. The number of historical tornado touch-downs per 25-square miles was generated using the NOAA Storm Prediction Center's dataset through 2016 (2017 data were not available at the time of the 2019 Plan update). To calculate density, the ArcGIS kernel density tool was used.

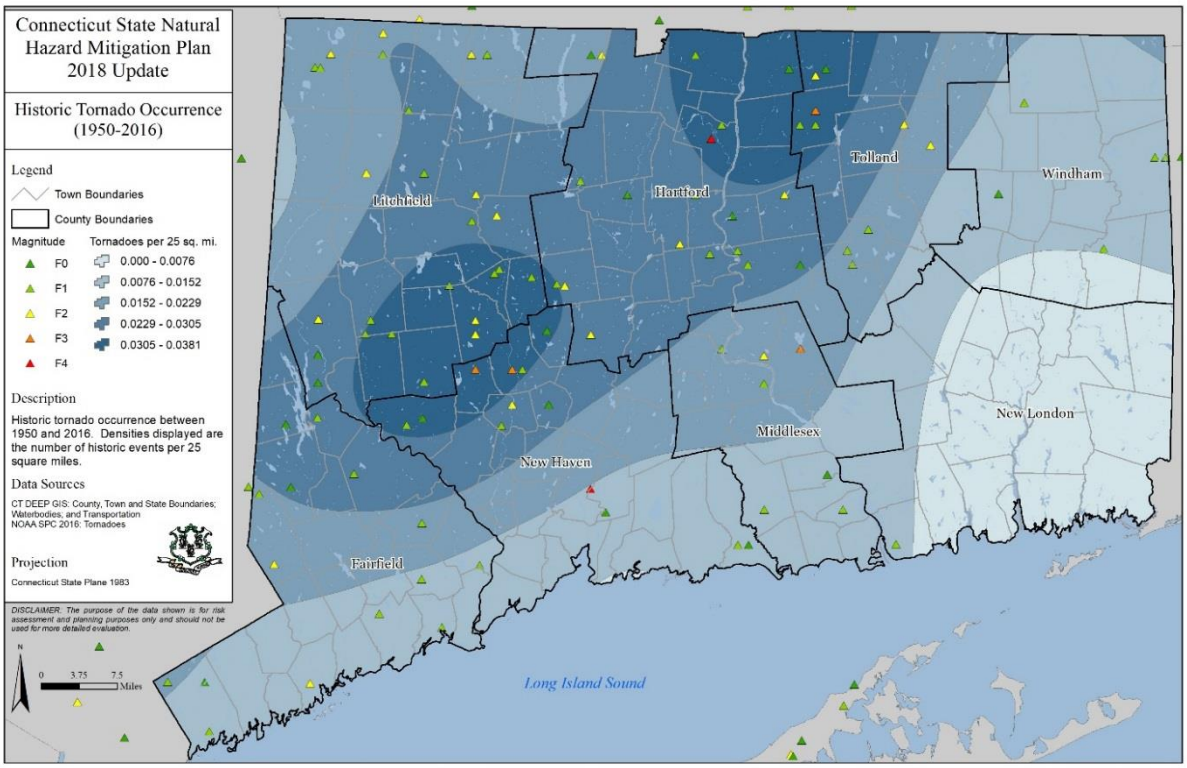

Figure 2-48 Historic Tornado Frequency Analysis per Square Mile (1950-2016)

Table 2-5 includes the number of infrastructure/facilities, building value and contents value by municipality. There are 3,327 mapped state-owned facilities. Based on a combination of the 2013 JESTIR database and Connecticut Open Data, the estimated total value of state buildings is $5.6 billion, with over $866 million in content value. The State's total building and contents value only includes those buildings where value information was available and is intent for use in this plan and should not be used for other applications. The state contains 1,940 identified critical facilities in the categories of correctional institutions, EMS facilities, fire stations, gas stations with generator, health departments, law enforcement facilities, municipal solid waste, nuclear power plants, and storage tank farms. 1,846 of these critical facilities were able to be geospatially mapped for analysis.

Appendix 2 includes the infrastructure and facilities datasets, as well as the loss estimates by municipality for facilities located within the known hazard geographic extents. Tornadoes can occur anywhere in the State, and therefore all State buildings and local assets are exposed to tornadoes; however, for the purposes of this 2019 Plan Update, the calculated high-density tornado areas were used to estimate potential impacts. As the State of Connecticut continues to become more urbanized, the State facilities will need to be developed in locations that will serve the growing population.

2.24.1 Assessment of State Vulnerability and Potential Losses

All State-owned facilities and critical facilities are exposed to the tornado events. To assess the vulnerability of state-owned facilities provided by Connecticut DCS, an analysis was conducted using historic tornado touch-down densities. Using ArcGIS, the area of greatest

historical tornado density (0.030 to 0.038) was overlaid on the State-owned facilities and critical facilities for Connecticut. Facilities located within the high tornado probability area are more likely vulnerable to the tornado hazard than other facilities in the State.

Table 2-85 and Table 2-86 provide a breakdown of the numbers and values of state-owned buildings intersecting the high tornado probability area by county. A total of 578 state-owned buildings (17.4-percent of the total number of state-owned buildings in the state) are located within the high-density zone. This amounts to a total of $231 million in building values vulnerable to the tornado hazard (3.6-percent of the total value of all state-owned buildings in the state). The remaining 2,749 state facilities are in low tornado probability areas (<0.030).

Table 2-85: Number of State-Owned Facilities in the High Tornado Probability Area, by County

County	Total State-Owned Buildings	High Tornado Probability Area (0.030-0.038)	Low Tornado Probability Area (<0.030)
Fairfield	205	0	205
Hartford	867	372	495
Litchfield	97	0	97
Middlesex	289	0	289
New Haven	561	165	396
New London	489	0	489
Tolland	628	40	588
Windham	191	0	191
Total	3,327	578	2,749

Table 2-86: Value of State-Owned Facilities in the High Tornado Probability Area, by County

County	Total State-Owned Buildings	High Tornado Probability Area (0.030-0.038)	Low Tornado Probability Area (<0.030)
Fairfield	$328,049,014	$0	$328,049,014
Hartford	$2,482,445,429	$48,837,342	$2,433,608,087
Litchfield	$55,774,193	$0	$55,774,193
Middlesex	$411,474,322	$0	$411,474,322
New Haven	$824,597,613	$102,689,434	$721,908,179
New London	$98,537,626	$0	$98,537,626
Tolland	$2,016,260,747	$79,202,954	$1,937,057,793
Windham	$253,657,976	$0	$253,657,976
Total	$6,470,796,920	$230,729,729	$6,240,067,191

Table 2-87 provides a breakdown of the numbers of critical facilities intersecting the high tornado probability area by county. A total of 192 critical facilities (10.4-percent of the total number of critical facilities in the state) are located within the high tornado probability area.

Table 2-87: Number of Critical Facilities in the High Tornado Probability Area by County and Agency

County/Facility Types	All Critical Facilities	# within High Tornado Probability Area	Percent within High Tornado Probability Area	# within Low Tornado Probability Area	Percent within Low Tornado Probability Area
Fairfield					
Correctional Institutions	4	0	0.0-percent	4	100.0-percent
EMS	120	0	0.0-percent	120	100.0-percent
Fire Stations	115	0	0.0-percent	115	100.0-percent
Gas Station with Generator	22	0	0.0-percent	22	100.0-percent
Health Departments	25	0	0.0-percent	25	100.0-percent
Law Enforcement	35	0	0.0-percent	35	100.0-percent
Municipal Solid Waste	43	0	0.0-percent	43	100.0-percent
Nuclear Power Plant	0	0	0.0-percent	0	100.0-percent
Storage Tank Farm	7	0	0.0-percent	7	100.0-percent
Total for Fairfield	**371**	**0**	**0.0-percent**	**371**	**100.0-percent**
Hartford					
Correctional Institutions	6	4	66.7-percent	2	33.3-percent
EMS	80	23	28.8-percent	57	71.3-percent
Fire Stations	141	30	21.3-percent	111	78.7-percent
Gas Station with Generator	10	2	20.0-percent	8	80.0-percent
Health Departments	26	3	11.5-percent	23	88.5-percent
Law Enforcement	44	9	20.5-percent	35	79.5-percent
Municipal Solid Waste	62	8	12.9-percent	54	87.1-percent
Nuclear Power Plant	0	0	0.0-percent	0	0.0-percent
Storage Tank Farm	8	3	37.5-percent	5	62.5-percent
Total for Hartford	**377**	**82**	**21.8-percent**	**295**	**78.2-percent**
Litchfield					
Correctional Institutions	0	0	0.0-percent	0	0.0-percent
EMS	34	9	26.5-percent	25	73.5-percent

Fire Stations	53	12	22.6-percent	41	77.4-percent
Gas Station with Generator	8	2	25.0-percent	6	75.0-percent
Health Departments	7		0.0-percent	7	100.0-percent
Law Enforcement	25	6	24.0-percent	19	76.0-percent
Municipal Solid Waste	29	14	48.3-percent	15	51.7-percent
Nuclear Power Plant	0	0	0.0-percent	0	0.0-percent
Storage Tank Farm	0	0	0.0-percent	0	0.0-percent
Total for Litchfield	**156**	**43**	**27.6-percent**	**113**	**72.4-percent**
Middlesex					
Correctional Institutions	1	0	0.0-percent	1	100.0-percent
EMS	31	0	0.0-percent	31	100.0-percent
Fire Stations	36	0	0.0-percent	36	100.0-percent
Gas Station with Generator	8	0	0.0-percent	8	100.0-percent
Health Departments	9	0	0.0-percent	9	100.0-percent
Law Enforcement	17	0	0.0-percent	17	100.0-percent
Municipal Solid Waste	21	0	0.0-percent	21	100.0-percent
Nuclear Power Plant	0	0	0.0-percent	0	100.0-percent
Storage Tank Farm	3	0	0.0-percent	3	100.0-percent
Total for Middlesex	**126**	**0**	**0.0-percent**	**126**	**100.0-percent**
New Haven					
Correctional Institutions	5	0	0.0-percent	5	1
EMS	76	6	7.9-percent	70	92.1-percent
Fire Stations	115	19	16.5-percent	96	83.5-percent
Gas Station with Generator	23	2	8.7-percent	21	91.3-percent
Health Departments	26	5	19.2-percent	21	80.8-percent
Law Enforcement	42	8	19.0-percent	34	81.0-percent
Municipal Solid Waste	45	6	13.3-percent	39	86.7-percent
Nuclear Power Plant	0	0	0.0-percent	0	0.0-percent
Storage Tank Farm	10	0	0.0-percent	10	100.0-percent

Total for New Haven	**342**	**0**	**0.0-percent**	**296**	**100.0-percent**
New London					
Correctional Institutions	1	0	0.0-percent	1	100.0-percent
EMS	77	0	0.0-percent	77	100.0-percent
Fire Stations	68	0	0.0-percent	68	100.0-percent
Gas Station with Generator	7	0	0.0-percent	7	100.0-percent
Health Departments	14	0	0.0-percent	14	100.0-percent
Law Enforcement	33	0	0.0-percent	33	100.0-percent
Municipal Solid Waste	39	0	0.0-percent	39	100.0-percent
Nuclear Power Plant	1	0	0.0-percent	1	100.0-percent
Storage Tank Farm	2	0	0.0-percent	2	100.0-percent
Total for New London	**242**	**0**	**0.0-percent**	**242**	**100.0-percent**
Tolland					
Correctional Institutions	3	2	66.7-percent	1	33.3-percent
EMS	35	4	11.4-percent	31	88.6-percent
Fire Stations	37	4	10.8-percent	33	89.2-percent
Gas Station with Generator	2	1	50.0-percent	1	50.0-percent
Health Departments	4	3	75.0-percent	1	25.0-percent
Law Enforcement	11	2	18.2-percent	9	81.8-percent
Municipal Solid Waste	22	5	22.7-percent	17	77.3-percent
Nuclear Power Plant	0	0	0.0-percent	0	0.0-percent
Storage Tank Farm	0	0	0.0-percent	0	0.0-percent
Total for Tolland	**114**	**21**	**18.4-percent**	**93**	**81.6-percent**
Windham					
Correctional Institutions	1	0	0.0-percent	1	100.0-percent
EMS	43	0	0.0-percent	43	100.0-percent
Fire Stations	40	0	0.0-percent	40	100.0-percent
Gas Station with Generator	2	0	0.0-percent	2	100.0-percent
Health Departments	3	0	0.0-percent	3	100.0-percent

Law Enforcement	12	0	0.0-percent	12	100.0-percent
Municipal Solid Waste	17	0	0.0-percent	17	100.0-percent
Nuclear Power Plant	0	0	0.0-percent	0	100.0-percent
Storage Tank Farm	0	0	0.0-percent	0	100.0-percent
Total for Windham	**118**	**0**	**0.0-percent**	**118**	**100.0-percent**
Total for Connecticut	**1,846**	**192**	**10.4-percent**	**1,654**	**89.6-percent**

2.24.2 Assessment of Local Vulnerability and Potential Losses

The impact of tornado events on life, health and safety is dependent upon several factors including the severity of the event and if adequate warning time was provided to residents. The entire population of Connecticut (3,574,097 people) is exposed to the tornado hazard (U.S. Census Bureau, 2010).

Unfortunately, some tornadoes strike with little or no warning and residents must act quickly. The following populations are more vulnerable to a tornado or other type of wind or severe storm event: 1) population located in communities without, or having ineffective, early warning systems; 2) population with functional needs and/or over the age of 65 because they may have more difficulty evacuating or seeking shelter; 3) economically disadvantaged populations because they are likely to evaluate their risk and make decisions based on the major economic impact to their family and may not have funds to evacuate; 4) population with a language barrier unable to follow warning messages; 5) population in mobile homes; and 5) population in automobiles at the time of a tornado. The elderly and functional needs populations are considered most vulnerable because they require extra time or outside assistance to seek shelter and are more likely to seek or need medical attention, which may not be available due to isolation during and/or after an event.

Residents may be displaced or require temporary to long-term sheltering. In addition, downed trees, damaged buildings and debris carried by high winds can lead to injury or loss of life. Socially vulnerable populations are most susceptible, based on a number of factors including their physical and financial ability to react or respond during a hazard and the location and construction quality of their housing.

Tornadoes in Connecticut are expected to continue to occur more frequently in western and northwestern Connecticut. When the frequency and population density are combined, the highest vulnerability to damage exists in Hartford and New Haven counties. The lowest vulnerability to tornado damage will likely continue to be along the southeast coast. Although this area is very densely populated, the frequency of tornado activity is low with only one confirmed tornado during the past 30 years in New London County.

To estimate potential losses by jurisdiction, the exposure analysis methodology was used. Similar to the analysis conducted for State-owned facilities and critical facilities, the 2010 U.S. census blocks intersecting the area of greatest historical tornado density (0.030 to 0.038) are listed in Table 2-88. This analysis was conducted by intersecting the 2010 U.S. census blocks with the high-density tornado area using GIS. In instances where only a

portion of the census block intersected the hazard area, only that same portion of the population is counted. For example, if 20-percent of the census block intersects with an intermix area, only 20-percent of the population number for that census block group is counted). This results in estimated values and there is potential for error with this methodology, but this is considered a more refined approach than assuming 100-percent of the population is contained within the 20-percent of the census block that intersects the hazard area. The total population at risk is estimated at 417,866, which is 11.7 percent of the total population of the state.

Table 2-88. Population Intersecting the Tornado Probability Area.

County	Total Population	Population Intersecting the High Tornado Probability Area (0.030-0.038)	Population Intersecting the Low Tornado Probability Area (<0.030)
Fairfield	916,829	8	916,821
Hartford	894,014	129,405	764,609
Litchfield	189,927	63,580	126,347
Middlesex	165,676	70,408	95,268
New Haven	862,477	114,787	747,690
New London	274,055	0	274,055
Tolland	152,691	39,677	113,014
Windham	118,428	0	118,428
Total	3,574,097	417,866	996,614

2.24.3 Changes in Development

An understanding of population and development trends can assist in planning for future development and ensuring that appropriate mitigation, planning, and preparedness measures are in place. The State considered the following factors to examine previous and potential conditions that may affect hazard vulnerability:

- Potential or projected development
- Projected changes in population
- Other identified conditions as relevant and appropriate

Since tornadoes can occur anywhere in the State, any new development and increases in population will be vulnerable to the impacts from these events. As discussed in Section 1.2.4 (Land Use and Development), Fairfield County and Hartford County continue to see the majority of development. As of 2016, approximately 65.7% of the building permits statewide were in Fairfield and Hartford Counties, and both of these counties accounted for nearly half of all the housing units in the State. If recent trends in development continue,

these two Counties will continually increase their vulnerability to tornadoes. As discussed in the Hazard Profile, Litchfield and Hartford County have the highest historical incidences of tornadoes and may be considered to have a higher risk for tornadoes, and Fairfield County and New Haven County have the second highest risk based on historical events. Statewide, there is an estimated 2.2% change in population expected between 2020 and 2040; the increases in population will increase the State population's vulnerability to tornadoes.

2.24.4 Hazard Ranking

Quantitative risk assessment, to the degree possible, has been completed for tornados using the methodology described in the Hazard Analysis and Ranking methodology Section 2.6 of this chapter. Scores for each jurisdiction were calculated based on population, building permits, geographic extent, average score from local plan rankings, average hazard concern, and measures of historical impact including injuries and deaths, property damage, and the number of reported events. The number of impacted critical facilities was also incorporated, and ranked based on the number of facilities impacted in relation to the number of total critical facilities in Connecticut. As shown in Table 2-89, the composite tornado rank shows Fairfield and Hartford Counties as high risk; Litchfield and New Haven Counties as medium-high risk; Middlesex County as medium risk; Tolland and Windham Counties as medium-low risk; and New London County as low risk.

Table 2-89: Hazard Ranking by County for Tornado

County	Hazard Concern Rank	Local Plans Hazard Rank	Geographic Extent Rank	Population Density Rank	Building Permits Rank	Facility Intersect Rank	Ann. Events Rank	Ann. Losses Rank	Injury & Death Rank	Composite Ranks
Fairfield	High	Medium-High	High	High	High	Low	High	Medium-High	High	**High**
Hartford	High	Medium-High	High	High	High	Low	High	Medium-High	High	**High**
Litchfield	High	Medium-High	Medium-High	Low	Low	Low	High	Medium	High	**High**
Middlesex	High	Medium-High	Medium	Medium-Low	Medium-Low	Low	High	Medium-Low	Low	**Medium**
New Haven	High	Medium-High	Medium-High	High	Medium	Low	High	Medium-Low	High	**High**
New London	High	Medium-High	Medium-Low	Medium-Low	Medium-Low	Low	High	Medium-Low	High	**Medium-High**
Tolland	High	Medium-High	Medium	Medium-Low	Medium-Low	Low	High	Medium-Low	Medium-Low	**Medium**
Windham	High	Medium-High	Medium-Low	Medium-Low	Low	Low	High	Medium-Low	Low	**Medium**

2.25 Tropical Cyclone Hazard Profile

2019 Plan Update Changes

- The hazard profile has been significantly enhanced to include a detailed hazard description, location, extent, impact (severity, warning time, and secondary impacts), previous occurrences, probability of future occurrence, and potential change in climate and its impacts on the tropical cyclone hazard is discussed.
- Previous occurrences were updated with events that occurred between 2013 and 2017.
- Included increase in surge information including difference between storm surge and storm tide
- Included reference to similar impacts from sub-tropical, extra-tropical, and post-tropical cyclones
- Included updated historic hurricane track map for the State of Connecticut

2.25.1 Hazard Description

A tropical cyclone is a rotating, organized system of clouds and thunderstorms that originates over tropical or sub-tropical waters and has a closed low-level circulation. Tropical depressions, tropical storms, and hurricanes are all considered tropical cyclones. These storms rotate counterclockwise in the northern hemisphere around the center and are accompanied by heavy rain and strong winds.[162] Almost all tropical storms and hurricanes in the Atlantic basin (which includes the Gulf of Mexico and Caribbean Sea) form between June 1 and November 30 (hurricane season). August and September are peak months for hurricane development. September is typically the most active month for tropical cyclones in Connecticut. The average wind speeds for tropical storms and hurricanes are listed below:

- A tropical depression has a maximum sustained wind speeds of 38 miles per hour (mph) or less
- A tropical storm has maximum sustained wind speeds of 39 to 73 mph
- A hurricane has maximum sustained wind speeds of 74 mph or higher. In the western North Pacific, hurricanes are called typhoons; similar storms in the Indian Ocean and South Pacific Ocean are called cyclones.
- A major hurricane has maximum sustained wind speeds of 111 mph or higher.[162]

[162] Nation Weather Service (NWS). 2013. "Tropical Cyclones: A Preparedness Guide." April. On-Line Address: http://www.nws.noaa.gov/os/hurricane/resources/TropicalCyclones11.pdf

Figure 2-49 shows a diagram of the anatomy of a tropical cyclone (hurricane) which consists of:

1. An eye – the center of a hurricane which is the calmest part of the storm, and is typically 20-40 miles across;

2. An eye wall – surrounds the eye and consists of a ring of tall thunderstorms that produce heavy rains and usually the strongest winds; and

3. Rain bands – curved bands of clouds and thunderstorms that rail away from the eye wall in a spiral fashion. Rain bands are capable of producing high winds, heavy outburst of rain and tornadoes.

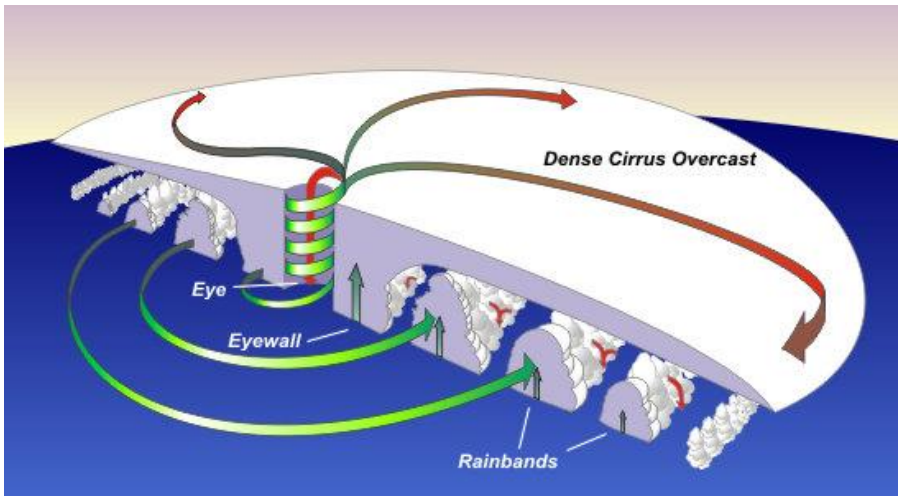

Figure 2-49. Diagram of a Tropical Cyclone (Hurricane), Weather.gov

There are several environmental conditions which must be present for a tropical cyclone to form:[163]

1. Warm ocean waters (at least 80°F) throughout a depth of about 150 feet;

2. An atmosphere which cools fast enough with height such that it is potentially unstable to moist convection;

3. Relatively moist air near the mid-level of the troposphere;

4. A minimum 300 mile distance from the equator;

5. A pre-existing near surface disturbance; and

6. Low values of vertical wind shear (change in wind speed with height) between the surface and the upper troposphere.

[163] Source: NOAA website.

Storm Surge

Tropical storms and hurricanes are typically accompanied by a storm surge, an abnormal local rise in sea level. The storm surge is caused by several factors including:

1. Storm intensity (wind speed)
2. Storm size (radius of the wind field)
3. Storm speed (forward motion)
4. Storm direction (at what angle a storm makes landfall)
5. Bathymetry (shelves and channels in the coastal sea floor)
6. Coastal features (shape of the coastline)
7. Barometric pressure (interaction between low pressure at the core of a storm and higher pressure in surrounding area)

Barometric pressure has often been identified as the primary cause of storm surge. However, it is only responsible for around 5% of the storm surge value.[164] Because of the variety of factors that can influence storm surge, stronger hurricanes do not always correlate with larger storm surges and even weaker systems can result in dramatic storm surge events.

No matter the precise cause and factors of storm surge, the end result is that water is pushed onto a coastline. The height of the surge is measured as the deviation from predicted astronomical tides and can reach over 25 feet in extreme circumstances. Storm tide is the combination of storm surge and astronomical tide. Astronomical tides can amplify or dampen the impact of a storm surge. A storm surge arriving at low astronomical

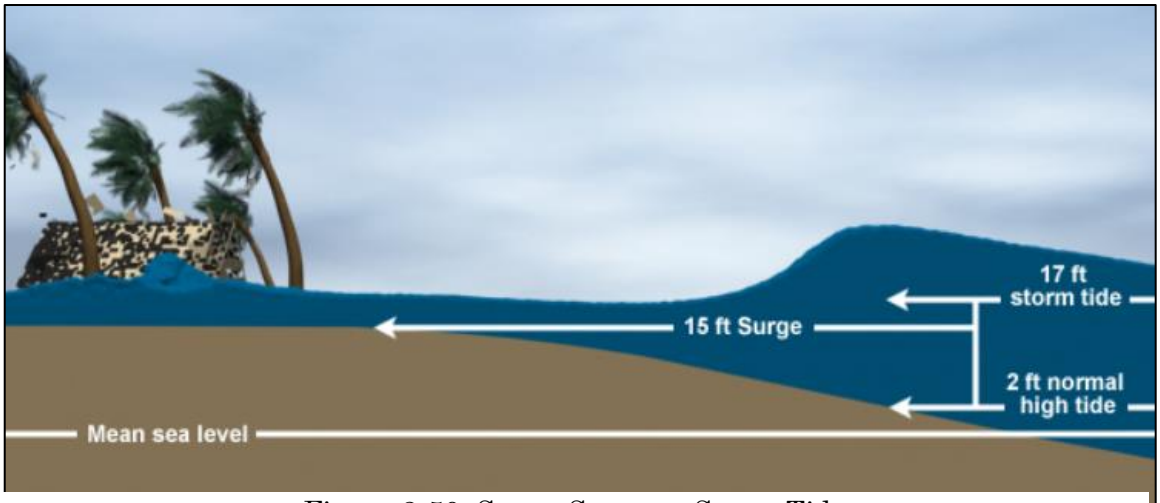

Figure 2-50: Storm Surge vs Storm Tide

[164] https://www.nhc.noaa.gov/surge/surge_intro.pdf

tide will have less impact than a storm surge arriving at high astronomical tide. A diagram of storm surge and storm tide is shown below in Figure 2-50.

2.25.2 Location

Hurricanes are a very real and costly hazard to Connecticut. Based on historic events and storm scenario simulations generated with Hazus, the information shows that the entire state of Connecticut is vulnerable to the impacts of such an event. Connecticut is located along the Atlantic coastline and has experienced all three types of tropical cyclone systems including some of the worst hurricanes to make landfall within the United States

The location of the damage varies greatly depending on the track, intensity and duration of the tropical cyclone. While storm surge and wave impacts are limited to low elevations near the coast, damaging winds and heavy rain associated with tropical cyclones can impact the entire state. Riverine flooding caused by heavy rain can impact the state's rivers with amplification near the coast by storm surge.

NOAA's Historical Hurricane Tracks tool is a public interactive mapping application that displays Atlantic Basin and East-Central Pacific Basin tropical cyclone data. This interactive tool catalogs tropical cyclones that have occurred from 1842 to 2016 (latest date available from data source). Between 1842 and 2016, Connecticut has experienced 34 tropical cyclone events. These events tracked within 50 nautical miles of the State.

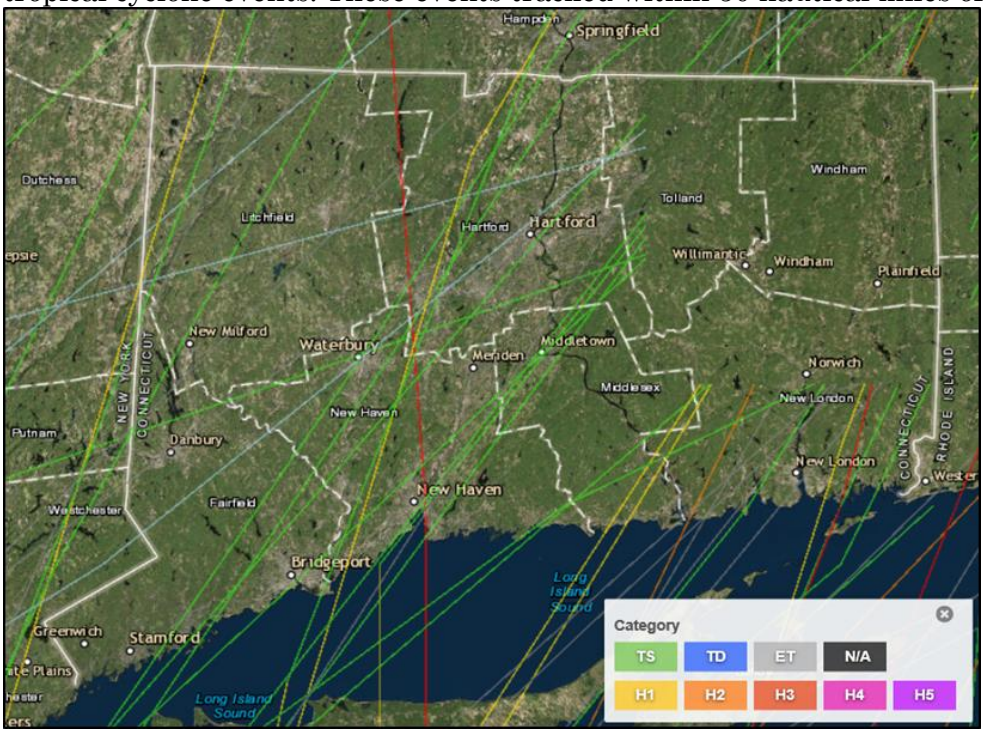

Figure 2-51 shows historic tracks for significant tropical storms and hurricanes within 50 nautical miles that have impacted Connecticut.[165]

[165] Source: NOAA website, interactive mapping tool. https://coast.noaa.gov/digitalcoast/tools/hurricanes

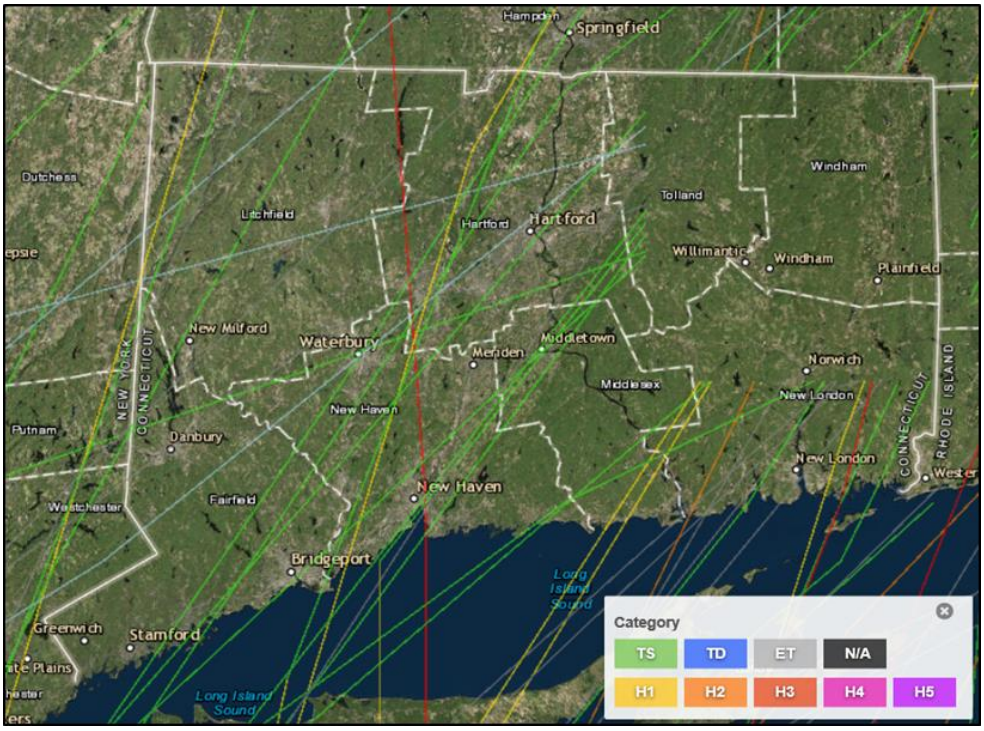

Figure 2-51 Tropical Cyclone Tracks 1856 - 2016

Sea, Lake, and Overland Surges from Hurricanes (SLOSH) Study

U.S. Army Corp of Engineers' (USACE) Sea, Lake, and Overland Surges from Hurricanes (SLOSH) study is especially useful for flood risk analysis on a regional and local level. The SLOSH computer program is a numerical computer model, developed by the NWS, for the USACE, and designed to forecast the rise in water level caused by the wind and pressure forces of a hurricane. This rise in the water surface, which accompanies a hurricane, is referred to as the storm surge. The SLOSH model computes the storm surge over water and along the coastline and extends the computations inland over the coastal flood plain. The results of the model can be utilized along with topographic information to determine hurricane flood inundation zones. The SLOSH model calculates four inundation zones. The four zones correspond to Hurricane Categories I & II, III, and IV respectively on the Saffir/Simpson scale.

The SLOSH model is used to evaluate the potential impact of storm surge. Emergency managers use data from SLOSH to identify at-risk populations and determine evacuation areas. Storm surges also affect tidal rivers and creeks, potentially increasing evacuation

areas.

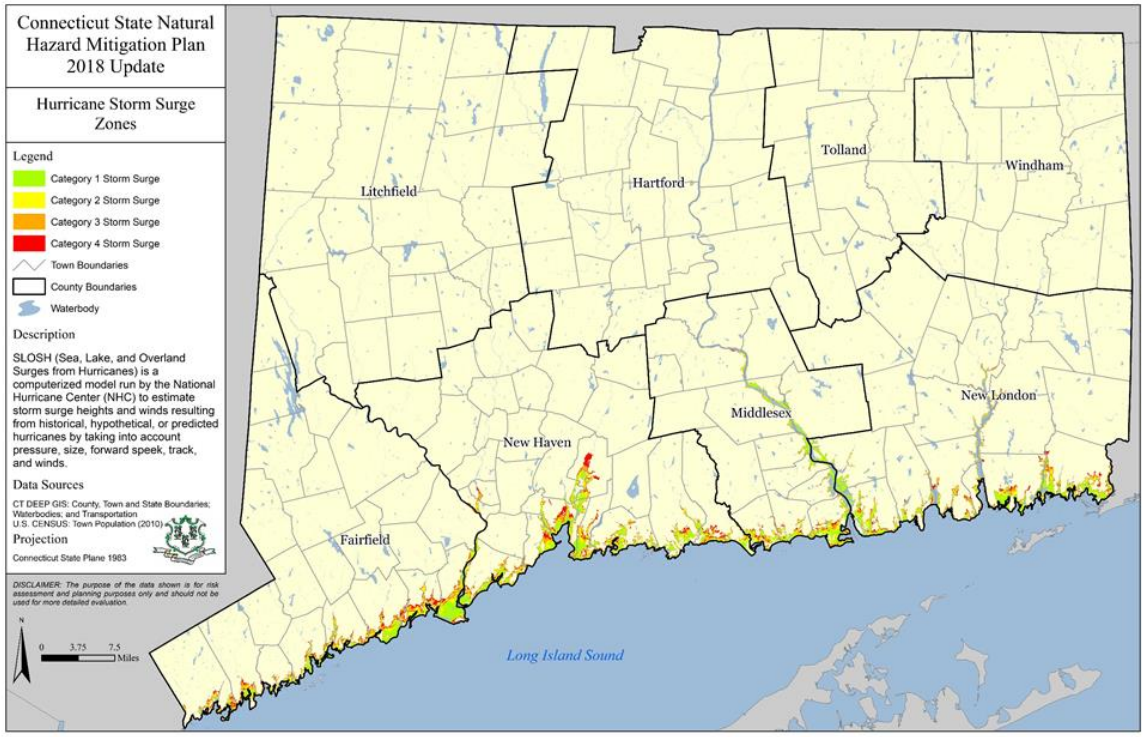

Figure 2-52 indicates the potential inland extent of storm surge as a function of hurricane category. It is readily apparent from this figure that Connecticut has significant vulnerability to storm surge.

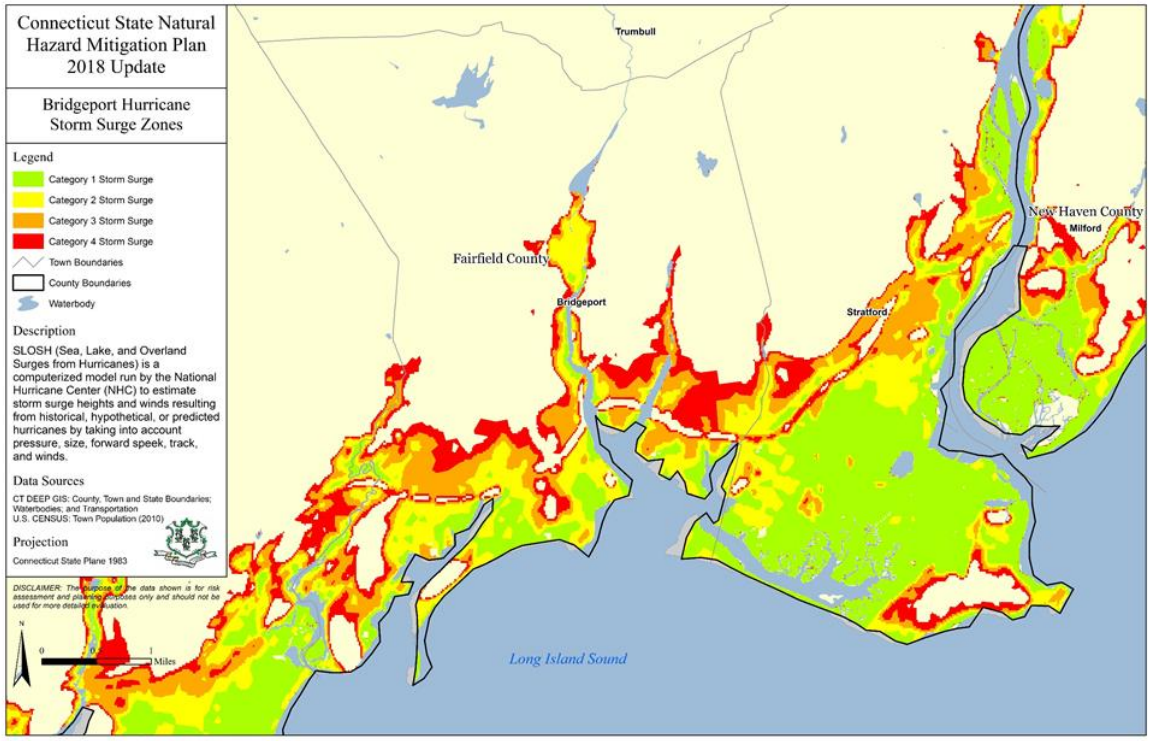

Figure 2-53 and

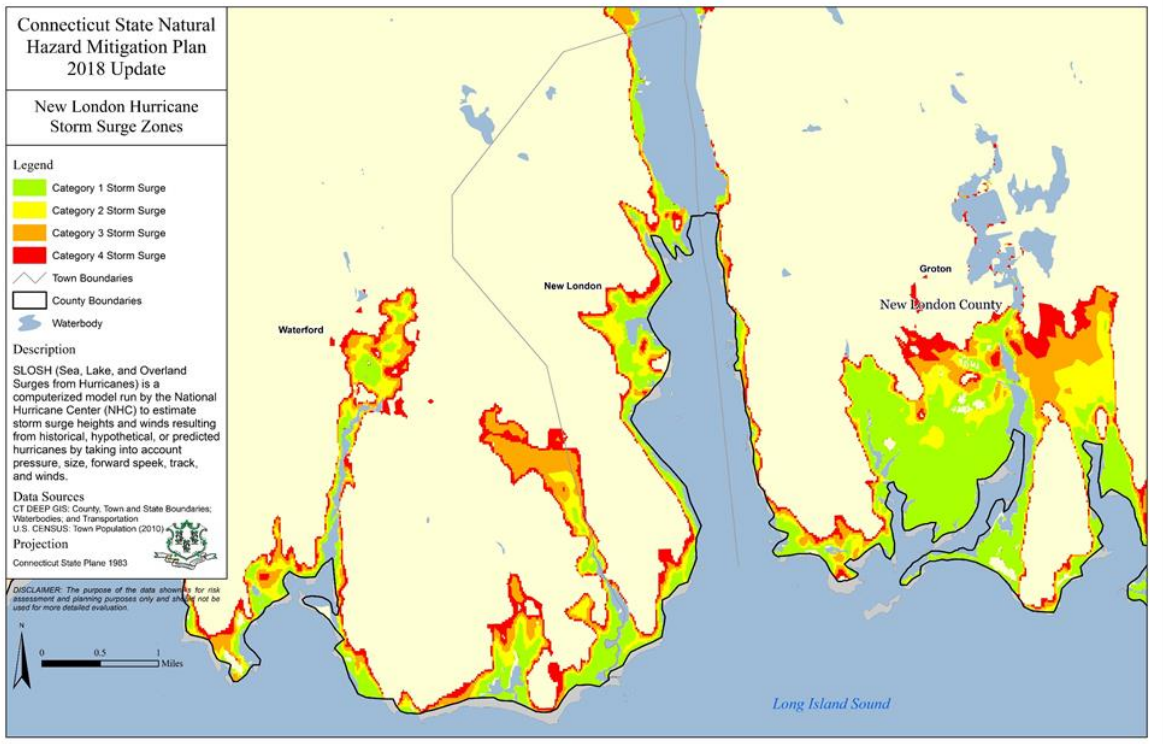

Figure 2-54 show the hurricane storm surge zones for Bridgeport and New London, as examples of a localized view of the storm surge maps.

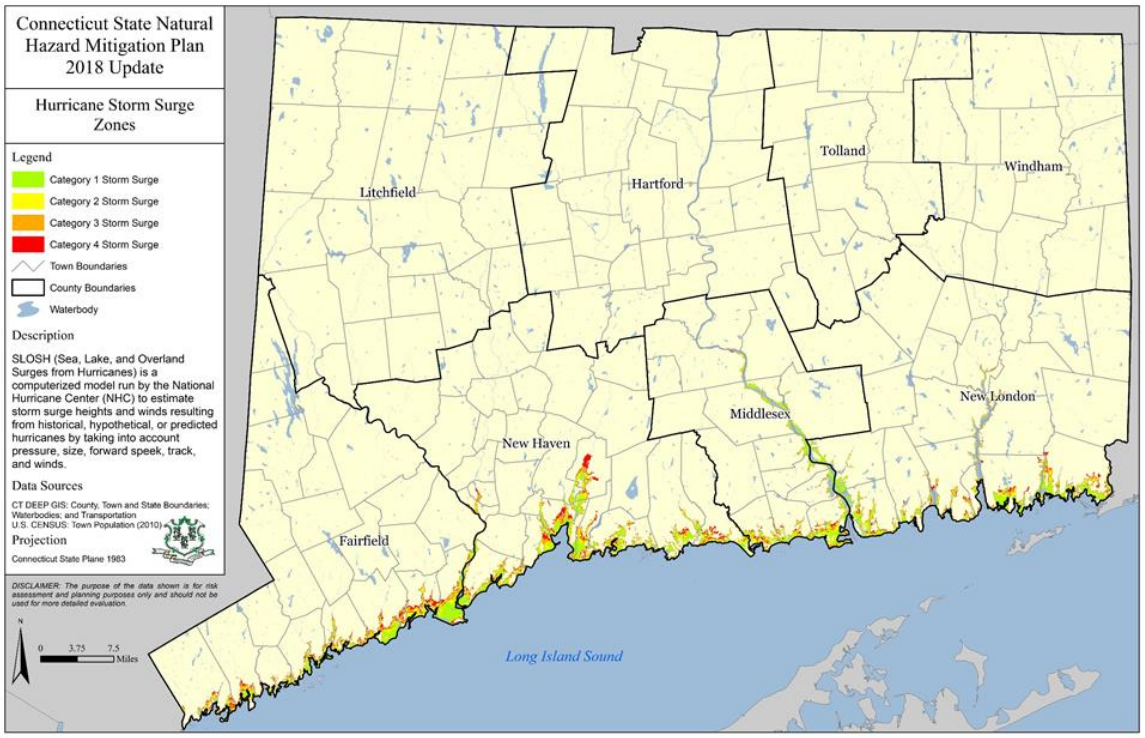

Figure 2-52 Potential Storm Surge Inundation by Hurricane Category

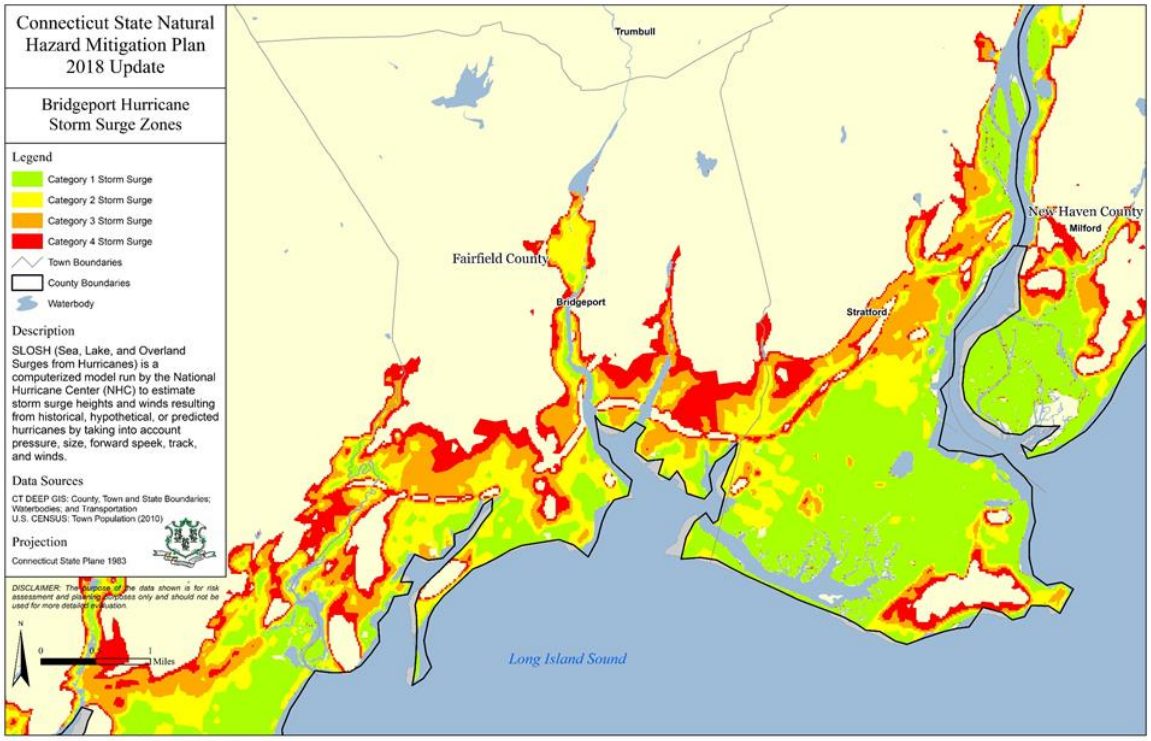

Figure 2-53 Bridgeport Hurricane Storm Surge Zones

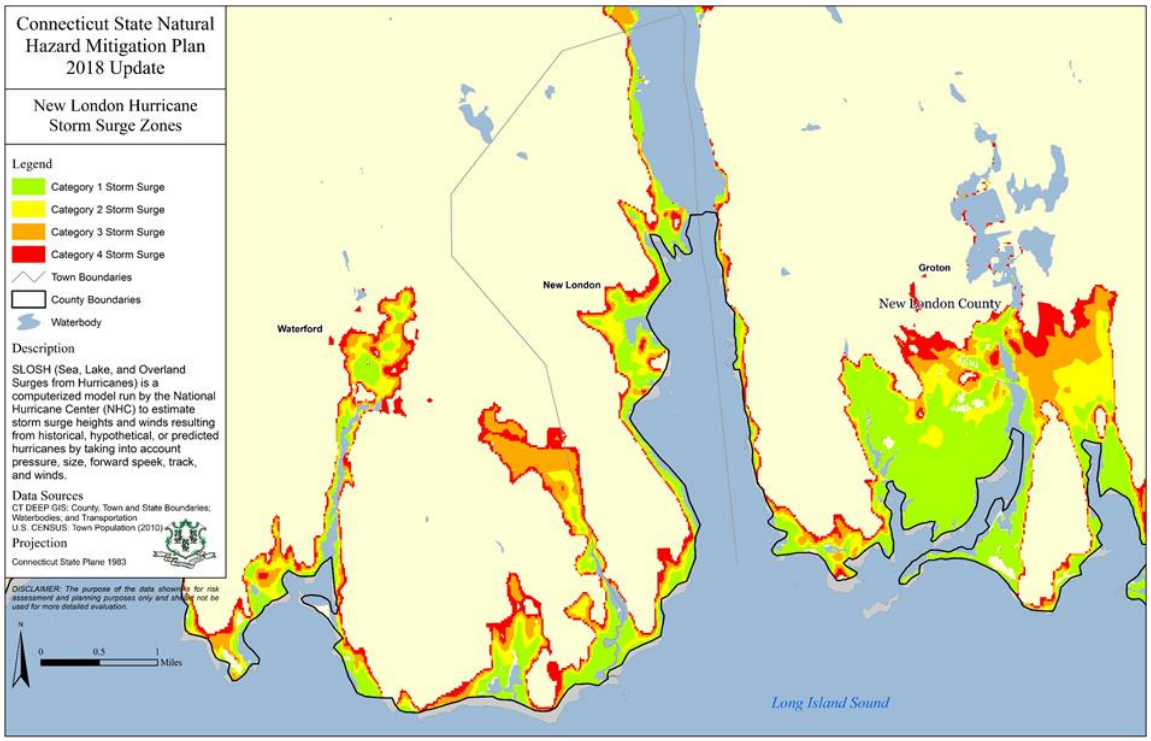

Figure 2-54 New London Hurricane Storm Surge Zones

In March 2016 FEMA and USACE completed the Connecticut Hurricane Evacuation Study Technical Data Report with an Evacuation Map Atlas and an Inundation Map Atlas (utilizing the NWS' SLOSH model). This study served as a decision-making tool which provided information on the extent and severity of potential flooding from hurricanes, the associated vulnerable population, capacity of shelters, estimated sheltering requirements, and evacuation time. This information has been provided to municipalities for local hazard mitigation plans.

DEMHS has updated information on public shelters, medical and institutional facilities, and mobile home parks in the 25 coastal municipalities and produced updated Evacuation and Inundation Maps located at http://www.ct.gov/demhs/cwp/view.asp?a=4490&q=596222. The State and its municipalities use the study and maps to plan for a possible evacuation.

Inundation from storm surge can have devastating impacts on the State's coastal communities. The United States Army Corps of Engineers (USACE), in cooperation with FEMA, initially prepared Sea, Lake and Overland Surge from Hurricanes (SLOSH) inundation maps. The SLOSH model is used to evaluate the potential impact of storm surge. Emergency managers use data from SLOSH to identify at-risk populations and determine evacuation areas. Storm surges also affect tidal rivers and creeks, potentially

increasing evacuation areas.

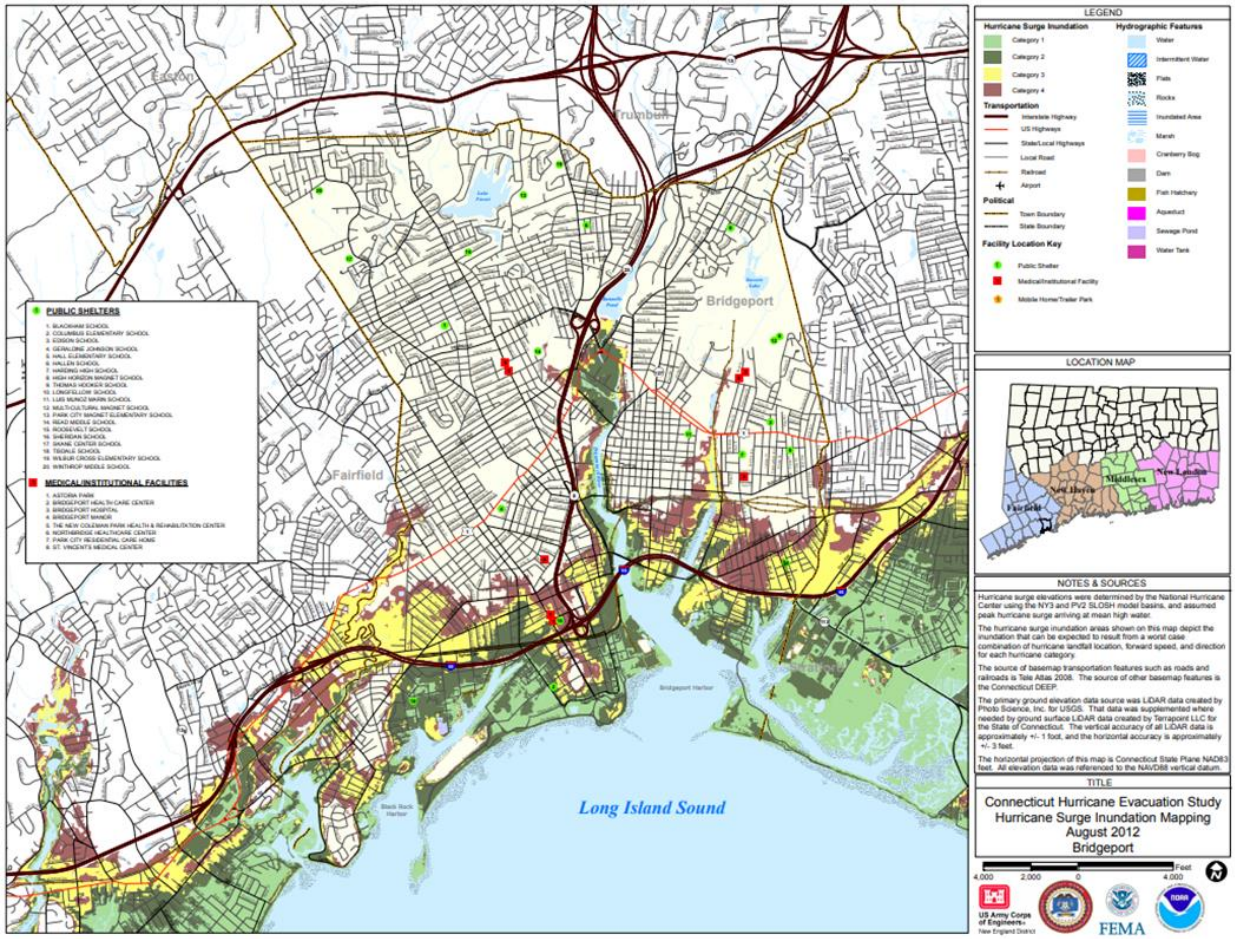

Figure 2-55 provides an example of a SLOSH map for Bridgeport.

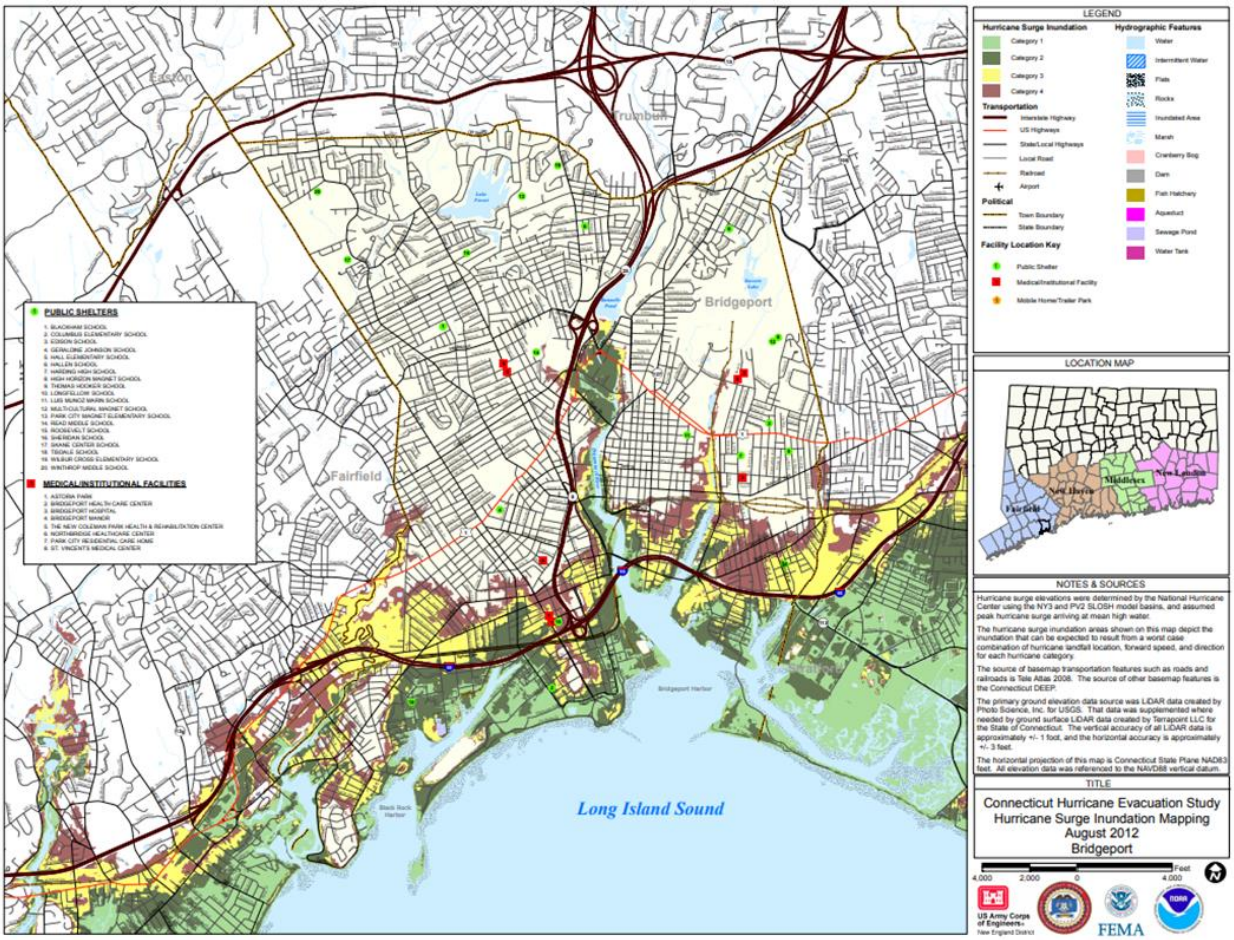

Figure 2-55 Example of the State of Connecticut SLOSH Map: Bridgeport

2.25.3 Extent

The extent of a hurricane is categorized in accordance with the Saffir-Simpson Hurricane Scale. The Saffir/Simpson scale (

Table 2-90) was developed in 1971 by Herbert Saffir and Dr. Robert Simpson as a way to classify hurricanes. The scale rates the intensity of hurricanes based on wind speed and barometric pressure measurements. The scale gives an indication of the potential flooding and wind damages associated with each hurricane category. Prior to 2009 hurricane season, hurricanes were categorized by the Saffir-Simpson Hurricane Scale that incorporated central pressure and storm surge as components of the categories. Due to criticisms and confusion regarding this practice, in 2009, the scale was revised and is now called the Saffir-Simpson Hurricane Wind Scale.[166] This modified scale, which is more scientifically defensible, is predicated on maximum sustained wind speeds and removed both storm surge and central pressure as factors.

[166] http://www.nhc.noaa.gov/aboutsshws.php

Table 2-90: Saffir/Simpson Scale

Category	Wind Speed (mph)	Expected Damage
1 (weak)	74-95 mph (64-82kt)	Minimal Damage: Damage is primarily to shrubbery, trees, foliage, and unanchored mobile homes. No real damage occurs in building structures. Some damage is done to poorly constructed signs.
2 (moderate)	96-110 mph (83-95kt)	Moderate Damage: Considerable damage is done to shrubbery and tree foliage, some trees are blown down. Major structural damage occurs to exposed mobile homes. Extensive damage occurs to poorly constructed signs. Some damage is done to roofing materials, windows, and doors; no major damage occurs to the building integrity of structures.
3 (strong)	111-130 mph (96-113kt)	Extensive damage: Foliage torn from trees and shrubbery; large trees blown down. Practically all poorly constructed signs are blown down. Some damage to roofing materials of buildings occurs, with some window and door damage. Some structural damage occurs to small buildings, residences and utility buildings. Mobile homes are destroyed. There is a minor amount of failure of curtain walls (in framed buildings).
4 (very strong)	131-155 mph (114-135kt)	Extreme Damage: Shrubs and trees are blown down; all signs are down. Extensive roofing material and window and door damage occurs. Complete failure of roofs on many small residences occurs, and there is complete destruction of mobile homes. Some curtain walls experience failure.
5 (devastating)	Greater than 155 mph (>135kt)	Catastrophic Damage: Shrubs and trees are blown down; all signs are down. Considerable damage to roofs of buildings. Very severe and extensive window and door damage occurs. Complete failure of roof structures occurs on many residences and industrial buildings, and extensive shattering of glass in windows and doors occurs. Some complete buildings fail. Small buildings are overturned or blown away. Complete destruction of mobile homes occurs.

Mean Return Period

In evaluating the potential for hazard events of a given magnitude, a mean return period (MRP) is often used. The MRP provides an estimate of the magnitude of an event that may occur within any given year based on past recorded events. MRP is the average period of time, in years, between occurrences of a particular hazard event, equal to the inverse of the annual frequency of exceedance[167].

Figure 2-56 and Figure 2-57 show the estimated maximum three-second gust wind speeds that can be anticipated in the study area associated with the 100- and 1,000-year MRP events. These peak wind speed projections were generated using Hazards U.S. Multi-Hazard (HAZUS) model runs. The estimated hurricane track used for the 100- and 1,000-year event was not generated as an output for the HAZUS model. The maximum three-second gust wind speeds for the State equate to Category 1 hurricane speeds for the 100-year MRP event. The maximum three-second gust wind speeds for the State range from Category 1 to Category 3 hurricane speeds for the 1,000-year MRP event. The associated

[167] Dinicola 2009 MRPFederal Emergency Management Agency (FEMA). 2013. "Disaster Declarations." On-Line Address: http://www.fema.gov/disasters

impacts and losses from these 100-year and 1,000-year MRP hurricane event model runs are reported in the Vulnerability Assessment presented later in this section.

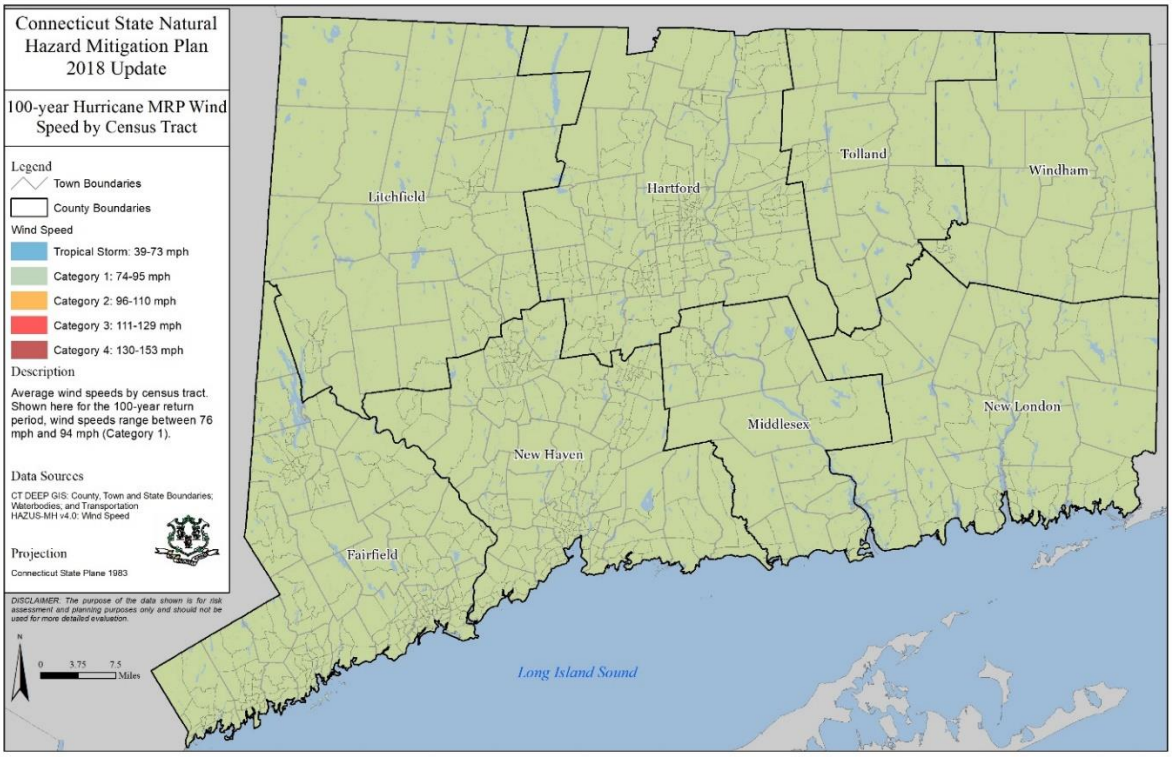

Figure 2-56: Wind Speeds for 100-Year Mean Return Period Event

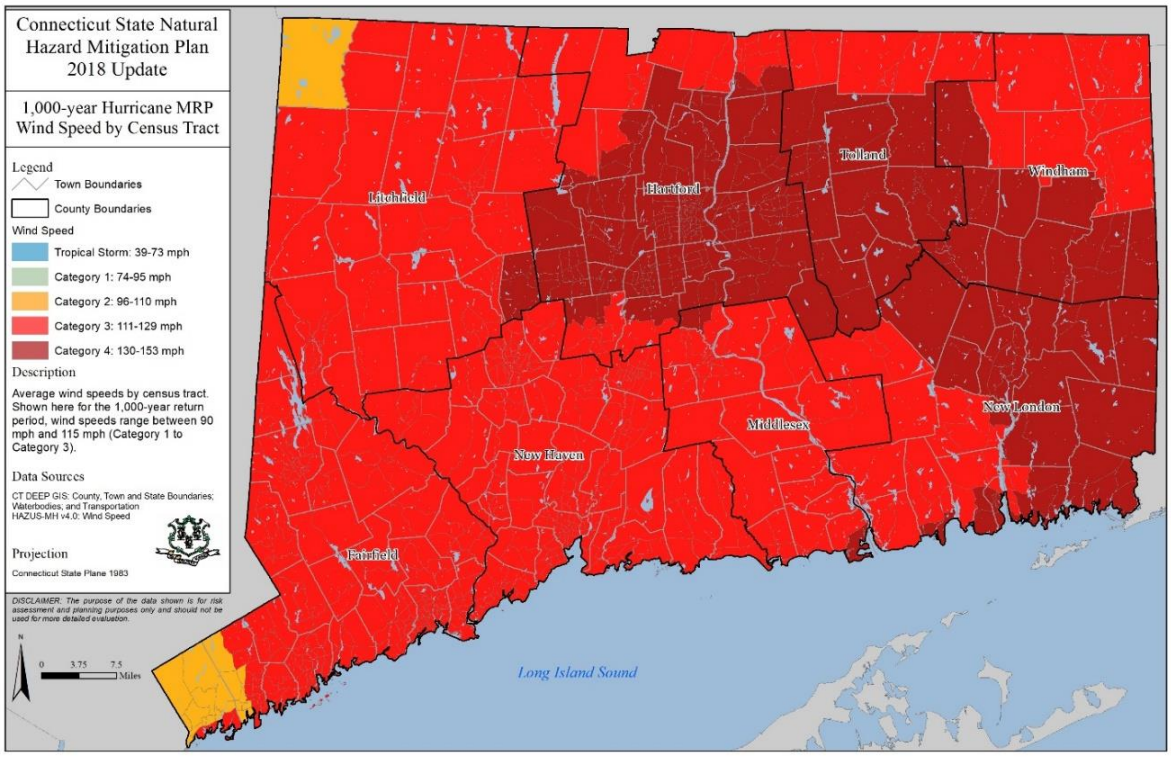

Figure 2-57: Wind Speeds for 1,000-Year Mean Return Period Event

2.25.4 Primary and Secondary Impacts

Tropical cyclone secondary impacts include increased risk of fire hazards, hazardous materials, coastal erosion, compromise of dams or levees, increased risk of landslides, and other environmental impacts. Cascading events following a tropical cyclone may also include health issues related to mold and mildew, disruption to transportation, relocation costs, capital related losses, wage losses, and rental income losses. Lingering stress from disasters such as hurricanes have been acknowledged by many, including FEMA.[168]

2.25.5 Severity

Hurricanes can disrupt the individual lives of Connecticut residents and create costly interruptions to businesses and commerce within the state. The impacts from tropical cyclones can be physical (injury/death), emotional (stress), and/or economic in nature. Economic impacts can include building damages, contents damages, and inventory losses. Flooding from heavy rain and storm surge can severely damage roadways, rail lines, and other infrastructure. High winds often result in extensive power outages threatening critical infrastructure services.

A hurricane strike to Connecticut has the potential to cause moderate to extensive damage within the State. The severity of the damage varies greatly depending on the track,

[168] https://www.fema.gov/coping-disaster

intensity, and duration of the tropical cyclone. Hazards associated with tropical cyclones include:

- Storm Surge: Storm surge is the abnormal rise of water generated by a storms winds. It is the leading cause of deaths from hurricanes in the United States[169] (NWS 2018). Storm tides (combined astronomical tide and storm surge) neared 20 feet in Connecticut with the landfall of an intense tropical cyclone on September 21, 1938.

- Wind: Connecticut has been impacted by Category 3 hurricanes in the past which can have sustained winds as high as 130 mph and higher gusts. Hurricanes often spawn weak tornados in outer rain bands, creating additional high wind threats. Tornados are discussed in Section 1.25.

- Rain: Intense and heavy rainfall from tropical cyclones leads to flash flooding and riverine flooding.

- Waves: Large and dangerous waves caused by tropical cyclone winds can batter coastlines even when a storm is 1,000 miles offshore.[169] These waves can cause erosion, rip currents, and damage to structures.

2.25.6 Warning Time

Past history has shown, and current evidence implies, that it is vital for state and local officials to plan and prepare for such events, and to implement effective mitigation procedures and post-event procedures to reduce, to the extent possible, loss of life and property.

The National Hurricane Center is responsible for forecasting and tracking tropical cyclones. While forecasting accuracy has increased in recent years, the ability of meteorologists to reliably predict tropical cyclone formation, tracks, and impacts beyond one week remains extremely limited. The National Hurricane Center and National Weather Service will issue alerts leading up to possible and expected impacts from a tropical cyclone:

- Tropical Storm Watch: An announcement that tropical-storm conditions are possible within the specified area.

- Hurricane Watch: An announcement that hurricane conditions are possible within the specified area.

- Tropical Storm Warning: An announcement that tropical-storm conditions are expected within the specified area.

- Hurricane Warning: An announcement that hurricane conditions are expected within the specified area.

[169] http://www.nws.noaa.gov/om/hurricane/index.shtml

- Extreme Wind Warning: Extreme sustained winds of a major hurricane (115 mph or greater), usually associated with the eyewall, are expected to begin within an hour. [170]

The National Hurricane Center also provides forecasting information on areas where tropical cyclone development is likely, a forecast cone for the probable path of the center of the cyclone, various storm surge products, and other mapping and discussion products that describe the anticipated evolution of systems and their associated hazards.

2.25.7 Previous Occurrences and Losses

Connecticut and New England are no strangers to tropical cyclone systems. To date, a Category 3 hurricane was the most severe tropical cyclone that impacted Connecticut. However, many Category 3 hurricanes which have come up the Atlantic coast into the cooler waters off New England were downgraded to a Category 2 hurricane or lower when they made landfall in/near Connecticut.

The National Weather Service reports that: Since 1900, 49 tropical systems have impacted Southern New England. Twenty-five were hurricanes, while 18 were of tropical storm strength. Any tropical storm or hurricane is capable of bringing a combination of high winds, large storm surges, and severe inland flooding along Area Rivers and streams.

Of the 25 hurricanes, nine made landfall along the Southern New England coast. Of those nine hurricanes, seven were either of a Category 2 or 3 intensity based on the Saffir-Simpson Hurricane Scale. Through the primary threat to New England is during August and September, the region has been affected as early as June and as late as mid-October." [171]

[170] https://www.nhc.noaa.gov/prepare/wwa.php
[171] Source: National Weather Service Forecast Office, Boston, MA.

Historic tracks and peak wind gusts, from Hazus, for the 1938 Hurricane, 1944 Hurricane, Hurricane Carol (1954), Hurricane Donna (1960), and Hurricane Gloria (1985) are shown in

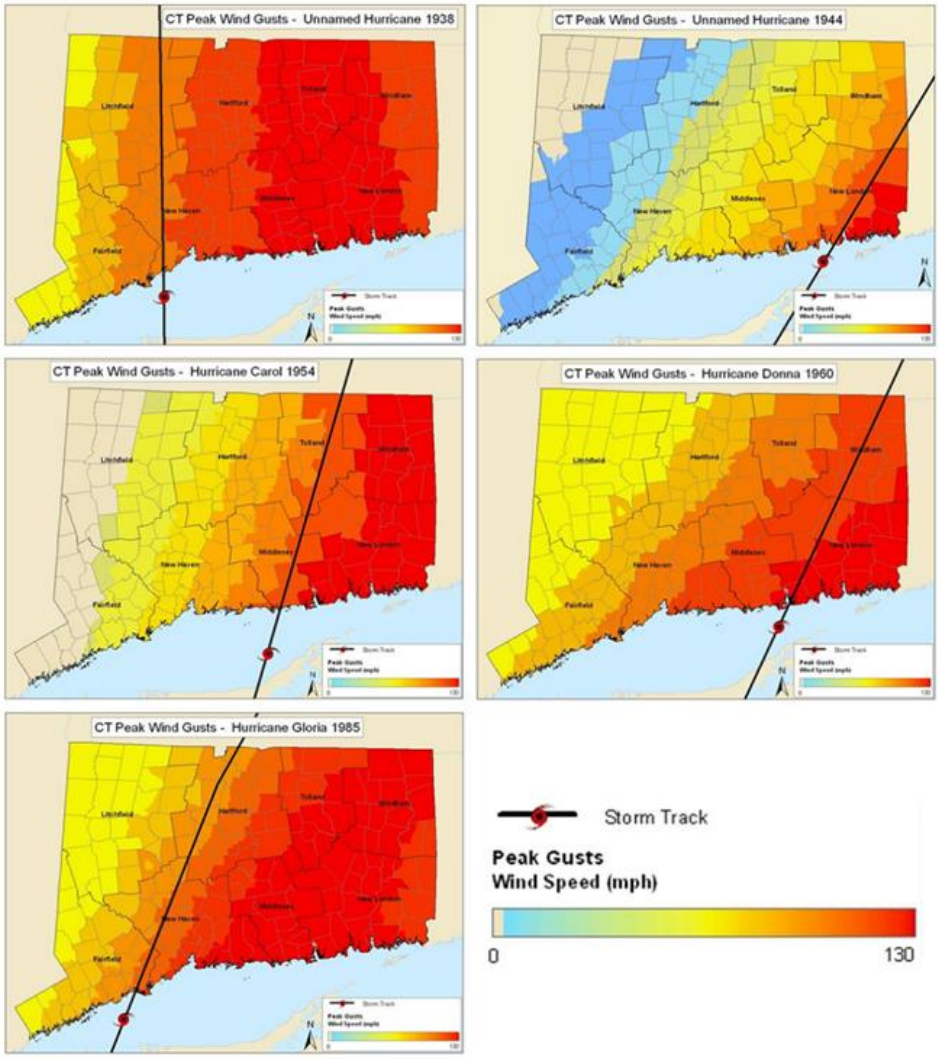

Figure 2-58.

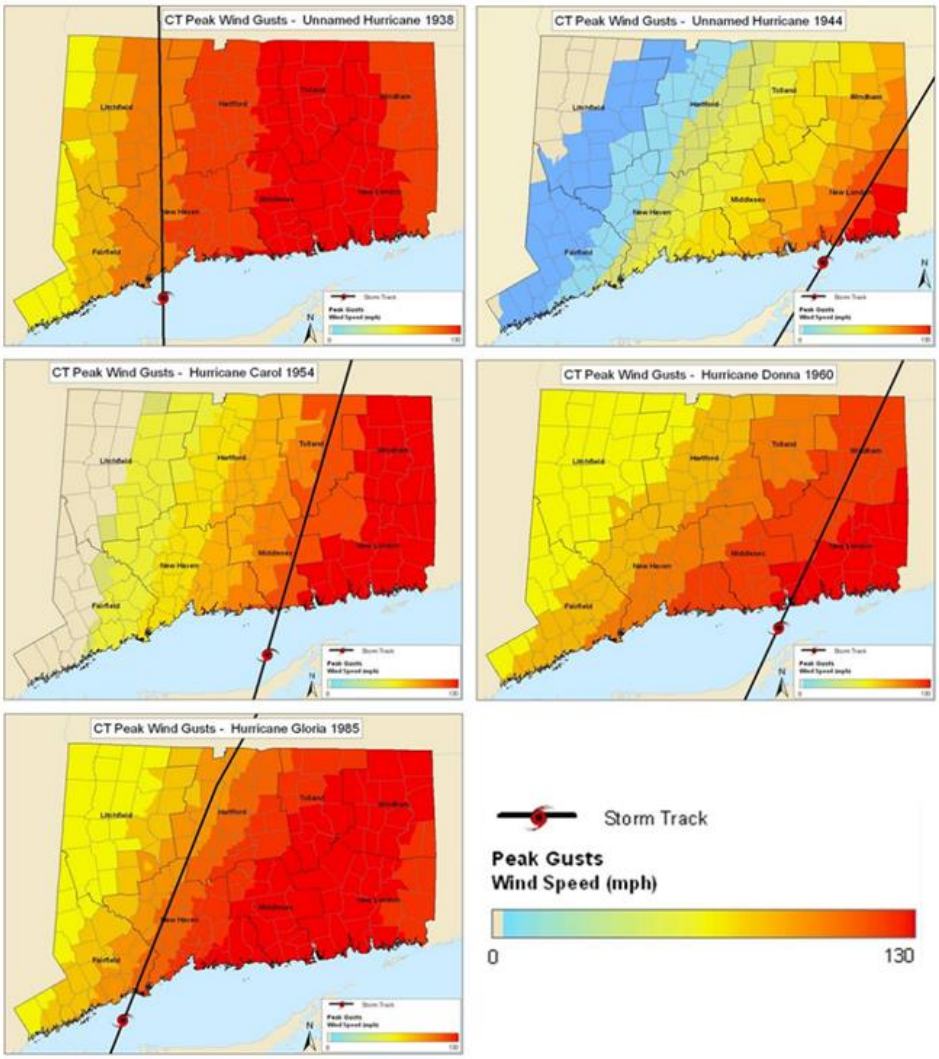

Figure 2-58 Historical Hurricane Tracks and Peak Wind Gusts (Hazus Derived)

It should be noted that many sources provided historical information regarding previous occurrences and losses associated with hurricanes and tropical storms that impacted the State of Connecticut. With many sources reviewed for the purpose of this HMP update, loss and impact information could vary depending on the source. Therefore, accuracy of monetary figures discussed is based only on the available information identified during research for this HMP update.

Some of the most notable hurricane and tropical storm occurrences in recent history in the state of Connecticut in terms of deaths, injuries, and/or property damages include the following (dollar values listed in the descriptions below are not adjusted for inflation):

The most intense hurricane to strike Connecticut occurred on September 21, 1938 (unofficially known as the Great New England Hurricane of 1938, or the Long Island

Express).[172] This Category 3 Hurricane made landfall in Connecticut in Milford, with the eye of the hurricane observed in New Haven Connecticut. Sustained winds of 91 mph with gusts of 121 mph were reported on Block Island, Rhode Island. The storm downed power lines in many areas of Connecticut and resulted in catastrophic fires in New London and Mystic, CT. Low pressures of 28.00 inches and 28.04 inches were reported in Middletown and Hartford, respectfully. Storm tides of 14 to 18 feet were reported along the Connecticut coast with 18 to 25 foot tides reported from New London, Connecticut to Cape Cod, Massachusetts.

Inland flooding was another result of the hurricane and a substantial amount of rain which occurred several days prior to the hurricane. Three to six inches of rain fell throughout most of Connecticut with 14 to 17 inches reported in Central Connecticut, resulting in severe flooding of rivers and streams and roadways and rail lines being washed out. In Hartford the Connecticut River reached 35.4 feet, which was 19.4 feet above flood stage.

Impacts on Southern New England from this storm were:

- 8,900 homes/cottages and buildings were destroyed, and 15,000 structures were damaged;
- An estimated $38,000,000 (in 1938 dollars) in damages to property in Connecticut;
- 564 deaths and 1,700 injuries; and
- 2,605 vessels destroyed and 3,369 vessels damaged.

In recent years, there have been two significant hurricanes. Hurricane Irene occurred on August 28, 2011 and weakened to a tropical storm as it made landfall. The storm hit the coast at high tide, which caused a storm surge that flooded roads and homes from Fairfield to New London. The storm produced high winds (maximum wind gusts were 66 mph, while the average wind gust for the entire state was 52.3 mph), heavy rains and flash flooding, and left ten people dead in Connecticut. At times, winds reached hurricane force from Westport to Woods Hole Massachusetts.[173] The storm also destroyed many houses, particularly in East Haven, Milford and Fairfield.[174] Hundreds of thousands of people were without power due to Irene; Connecticut had the largest population without power, about 16% of customers.[175] Following the, trees, branches and power lines remained scattered across roads in every town in the state. About 2,000 residents were in shelters across the state[176] Additional details on this event are available in Section 2.3 on Connecticut's History of Natural Disasters and in the flood history section.

Super Storm Sandy occurred October 29-30, 2012, causing storm surges, wind and rain and devastating the Jersey Shore, Southern NYC, parts of Long Island and the Connecticut and Rhode Island coastlines. Coastal residents and business owners suffered from storm surge

[172] Source: NWS, Boston Office; information describing this event was taken from the NWS Boston website. Pictures are from the Connecticut State Library online archives.
[173] http://en.wikipedia.org/wiki/List_of_New_England_hurricanes
[174] Connecticut Post. Connecticut's worst hurricanes. 10/30/2012.
[175] World Socialist website. Power outages, flooding continues in wake of Hurricane Irene. 9/2/2011.
[176] The Hartford Courant. Home Destroyed, People Missing and 767,000 without power after Irene. 8/28/2011.

and its damage, and more than 360,000 people were evacuated from low-lying areas along the coast from Old Saybrook to Fairfield. Inland cities and towns saw widespread power failures. A travel ban was issued on state highways, and commuter rail and Amtrak service was canceled.[177]

Although one of the most damaging storms in Connecticut history, Super Storm Sandy was not a Hurricane by definition when it made landfall in Connecticut. It had both extratropical cyclone and nor'easter characteristics combined, illustrating the possibility of dangerous changes in storm dynamics. In Connecticut, all eight counties saw damages, with more than $360 million in total damage. At its peak, Sandy cut power to 640,000 homes and businesses, and it was reported to be at least 5 storm-related deaths. As of May 2013, more than $367 million in federal assistance had been approved to help Connecticut with disaster expenses.

Figure 2-59 shows an example of the damage from flooding that was seen in many coastal towns.

[177] The New York Times. State-by-State Guide to Hurricane Sandy. 10/29/2010

Figure 2-59: Milford, Connecticut after Hurricane Sandy (10/2012), Daily News

FEMA Disaster Declarations

There are no new federally declared disasters related to flooding since the 2014 plan update.

2.25.8 Probability of Future Events

The Atlantic hurricane season begins on June 1 and runs through November 30 of each year. This is the time period when the environmental conditions are most favorable for a tropical cyclone to develop. The greatest risk of a hurricane impacting New England within this six-month period is from late August to mid-October.

In general it is impossible to predict when and where a hurricane will occur. Some researchers such as Klotzbach and Gray[178] develop forecasts and probabilities of landfall strikes for the annual Atlantic hurricane season. However, this forecast is revised throughout the season. Other researchers and Federal agencies like NOAA do not make such landfall predictions. NOAA states that, "Hurricane landfalls are largely determined by the weather patterns in places the hurricane approaches, which are only predictable when the storm is within several days of making landfall." NOAA does issue a seasonal hurricane outlook that provides a general guide to the expected overall nature of the upcoming hurricane season. The outlook combines the impacts of three climate factors to analyze an expected level of activity for the season:

- The tropical multi-decadal signal;

[178] Philip J. Klotzbach and William M. Gray run the Tropical Meteorology Project at Colorado State University. Information about and the actual hurricane season forecasts can be downloaded from website..

- The El Niño/La Niña (ENSO – El Niño Southern Oscillation) cycle; and
- The tropical Atlantic sea surface temperatures.

Hurricanes have the greatest destructive potential of all natural disasters in Connecticut, due to the potential combination of high winds, storm surge and coastal erosion, heavy rain, and flooding which can accompany this hazard. Figure 2-60 provides an example of a probability map, showing the likelihood of a named hurricane impacting a given area during hurricane season.

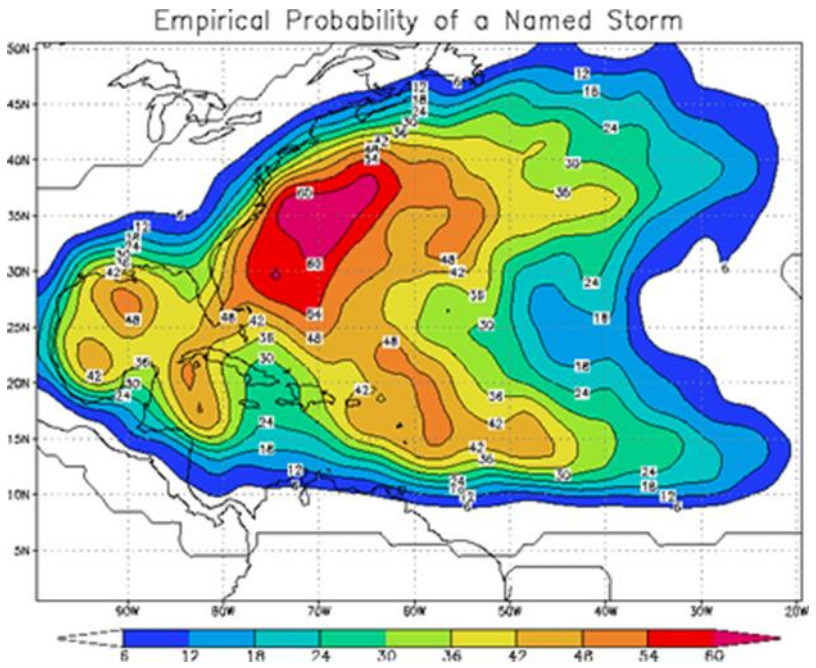

Figure 2-60: Probabilities of a Named Storm Impacting an Area during Hurricane Season (June to November)

Researchers have recently analyzed data that has indicated that the intensity of tropical cyclones (hurricanes and typhoons) has increased over the last thirty-five years. With changing weather patterns resulting from climate change, increases in frequency and intensity are also expected to continue. NOAA developed a series of hurricane return periods for the northeast based on historical data of events within 65 nautical miles of the storm tracks Figure 2-61. NOAA methodology for this is as follows:

Hurricane return periods are the frequency at which a certain intensity or category of hurricane can be expected within 75 nautical miles(nm) or 86 statute miles of a given location. In simpler terms a return period of 20 years for a Category 3 or greater hurricane means that on average during the previous 100 years, Category 3 or greater hurricane passed within 75 nm (86 miles) of that location about five times. We would then expect, on average, an additional five Category 3 or greater hurricanes within that radius over the next 100 years. The basic idea is that a population of tropical cyclones falling within the 65 nm (75 miles) circle is obtained from the best-track file. For that set of storms, the

maximum wind within the circle is found. Then, a count is conducted to find how many systems had winds of 30-34 knot (kt), 35-39 kt etc. Once the count is known, a function is used to "fit" the distribution. Since there are only a few intense tropical cyclones typically in the 100-year record for a particular site, the mathematical function helps to smooth this out and "fill in the holes". The smooth function is then used to estimate the number of systems that would occur over a longer time period.

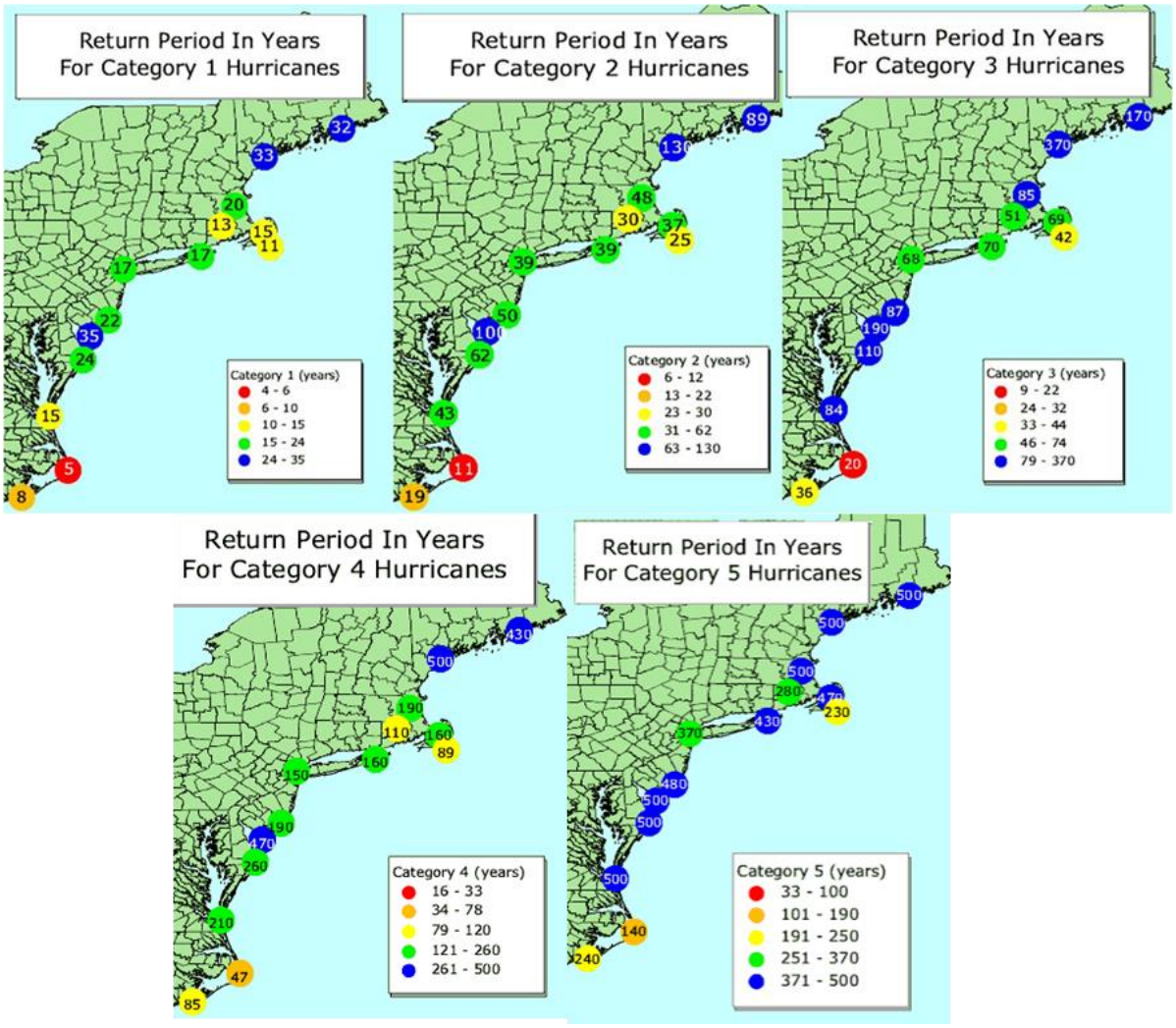

Figure 2-61: Return Periods for Hurricane Categories 1-3 in the Northeast

According to Figure 2-61, a Category 1 hurricane can be expected to make landfall in/near Connecticut once every ten to fifteen years. A Category 2 hurricane could be expected to make landfall in/near Connecticut once every twenty-three to thirty years, and a Category 3 hurricane has a calculated return period of forty-six to seventy-four years. With the last hurricane (Hurricane Bob, Category 2,) to impact Connecticut occurring in 1991, we can expect the occurrence of another hurricane to impact the state within the foreseeable future.

Given the past history of major storms and a reasonable estimate of likely future scenarios, it would be prudent for Connecticut to expect that there will be forthcoming hurricanes which make landfall in or near Connecticut and they will be of a greater intensity and longer duration than in the past. This may mean a potential increase in all categories of hurricanes normally experienced in New England. Based on historical data for hurricane tracks within 50 miles of Connecticut, it is reasonable to assume that the state has a medium-low probability of future events (less than 1 event per year). It should be noted that this probability is based on the historical hurricane tracks since 1900 and is medium-low on an annual basis but high based on recent events and perception.

2.25.9 Climate Change Impacts

Tropical cyclones rely on warm surface waters to develop and thrive. With increasing global temperatures, an increase to the frequency and severity of tropical cyclones would appear likely. However, climactic changes beyond surface water temperatures make predicting the likely impacts of climate change on tropical cyclones difficult. Researchers have recently analyzed data that has indicated that the intensity of tropical cyclones (hurricanes and typhoons) has increased over the last thirty-five years.[179]

Given the past history of major storms and a reasonable estimate of likely future scenarios, it would be prudent for Connecticut to expect that there will be forthcoming hurricanes which make landfall in or near Connecticut and they will be of a greater intensity and longer duration than in the past. This may mean a potential increase in all categories of hurricanes normally experienced in New England.

Storm surge impacts are likely to worsen in the future as a result of sea level rise. For example a storm surge of 3 feet today will have the impact of a surge of 5 feet if sea levels rise 2 feet (3 feet of storm surge + 2 feet of sea level rise = 5 feet of flooding). For more information on sea level rise refer to Section 1.15.

2.26 Tropical Cyclone Vulnerability Assessment

Hurricanes are a very real and costly hazard to Connecticut. Based on historic event and storm scenario simulations generated with Hazus in 2011, 2013, and 2018, the information shows that the entire state of Connecticut is vulnerable to the impacts of such an event. These impacts can be physical, emotional, and/or economic in nature. Hurricanes can disrupt the individual lives of Connecticut residents and create costly interruptions to businesses and commerce within the state. Past history has shown, and current evidence implies, that it is vital for state and local officials to plan and prepare for such events, and to implement effective mitigation procedures and post-event procedures to reduce, to the extent possible, loss of life and property.

Factors that may lead to increased vulnerability of tropical cyclones include:

1. Increasing in population within coastal communities;

[179] http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf

2. Local zoning and development patterns in highly vulnerable areas of the community;

3. Locating state and local facilities (i.e. schools) within highly vulnerable areas; and

4. Building codes currently in place and the age/number of structures located within highly vulnerable areas of a community.

Most of the existing housing stock in Connecticut was built before 1990 and is unaffected by the code changes. Since much of the existing housing stock predates recent building code updates,[180] many structures are highly susceptible to roof and window damage from high winds. In addition, homes located within FEMA designated significant flood hazard areas (SFHAs) are at risk from flooding as a result of heavy rain and storm surges from these types of major storms.

Table 2-5 includes the number of infrastructure/facilities, building value and contents value by municipality. The state contains 3,327 state-owned buildings totaling $6.5 billion in building values; the building and contents values have not been estimated for all state-owned building. The State's total building and contents value only includes those buildings where value information was available and is intent for use in this plan and should not be used for other applications. The state contains 1,940 identified critical facilities in the categories of correctional institutions, EMS facilities, fire stations, gas stations with generator, health departments, law enforcement facilities, municipal solid waste, nuclear power plants, and storage tank farms. 1,846 of these critical facilities were able to be geospatially mapped for analysis.

Appendix 2 includes the infrastructure and facilities datasets, as well as the loss estimates by municipality for facilities located within the known hazard geographic extents. For the purposes of this 2019 Plan update, all State buildings and local assets are exposed to tropical cyclones. As the State of Connecticut continues to become more urbanized, the State facilities will need to be developed in locations that will serve the growing population.

2.26.1 Assessment of State Vulnerability and Potential Losses

All State buildings are exposed to the wind and/or rain from tropical cyclones. Table 2-5 summarizes the number of state-owned and –leased buildings in the state. For an assessment of vulnerability and potential losses as a result of storm surge from a tropical cyclone, refer to Section 2.14 (Flood-Related Vulnerability Assessment).

As the State of Connecticut continues to grow from a development standpoint, State facilities need to be located where they will serve the population base. Populations continue to grow in existing urban areas within hurricane and tropical storm hazard areas. These areas will continue to be prone to the impacts of these hazards and as the population grows; however, as discussed above, improved mapping, elevation data, and regulatory changes will mitigate future damages to new development and areas being rebuilt after a hazard event.

[180] More information regarding Connecticut's building codes can be found at the following websites: http://portal.ct.gov/DAS/Office-of-State-Building-Inspector/Connecticut-State-Building-Code/Regulations.

2.26.2 Assessment of Local Vulnerability and Potential Losses

Historically, hurricanes and tropical storms have impacted all eight Connecticut counties. All local hazard mitigation plans identified hurricanes and tropical storms as a hazard of concern.

The impact of a hurricane or tropical storm on life, health, and safety depends on several factors, including the severity of the event and whether or not adequate warning time was provided to residents. It is assumed that the entire State's population is exposed to the wind hazard associated with a hurricane or tropical storm event.

Analysis for the plan update included probabilistic runs for the all return periods with the 2010 inventory in Hazus v4.0. Figure 2-62 below shows the estimated 100-year hurricane return period by census tract (analysis with 2010 population per census tract). Fairfield County, Hartford County, and New Haven County show the highest estimated losses, with census tracts estimating a total of $494 to $583 million in losses. Figure 2-63 shows the estimated 1,000-year hurricane return period by census tract. In this scenario, Fairfield County, Hartford County, and New Haven County also show the highest estimated losses, between $2 and $7 billion, the majority of which are in Hartford and New Haven counties.

It is noted that maps displaying the 100- and 1,000 year storm tracks were not developed for this plan due to an issue within Hazus v4.0 export function which precluded the creation of the spatial layer for these events.

The estimated total losses for all hurricane return periods are shown in

Table 2-91. This shows that Fairfield, New Haven and Hartford counties have the highest estimated total losses for all hurricane return periods combined, $6.8 billion, $9.1 billion, and $10.3 billion respectively.

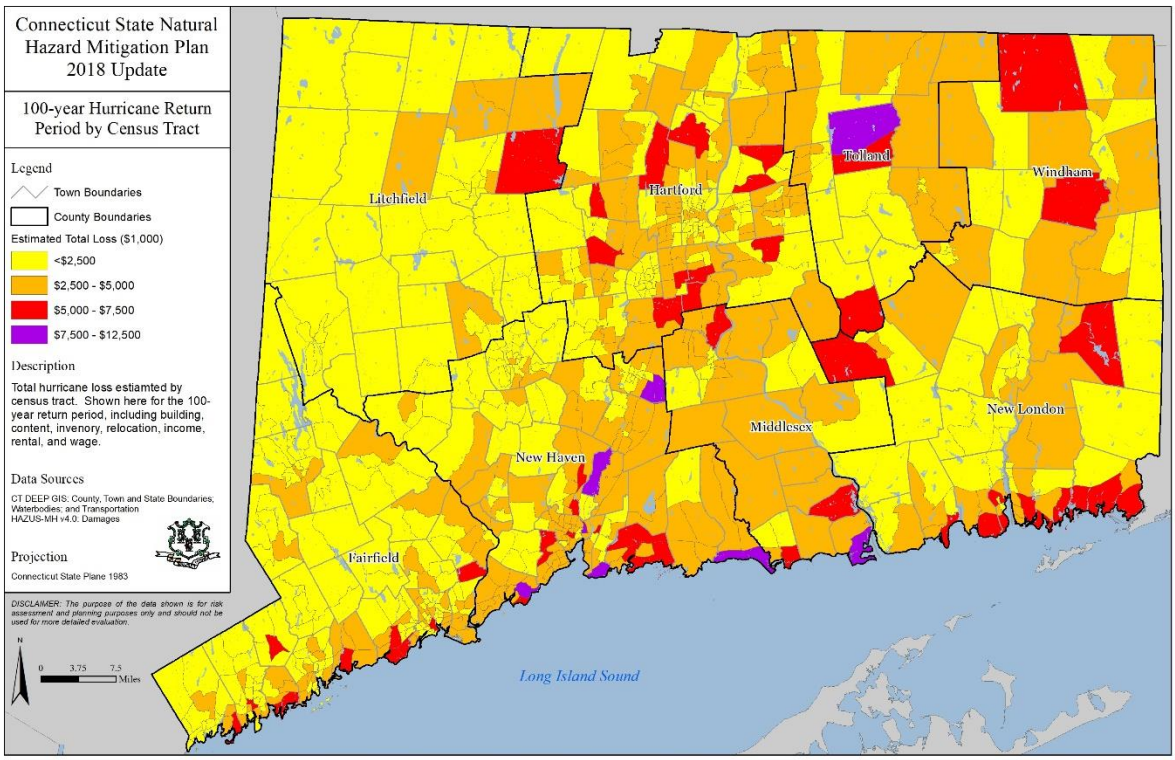

Figure 2-62: Estimated 100-year Hurricane Return Period by Census Tract

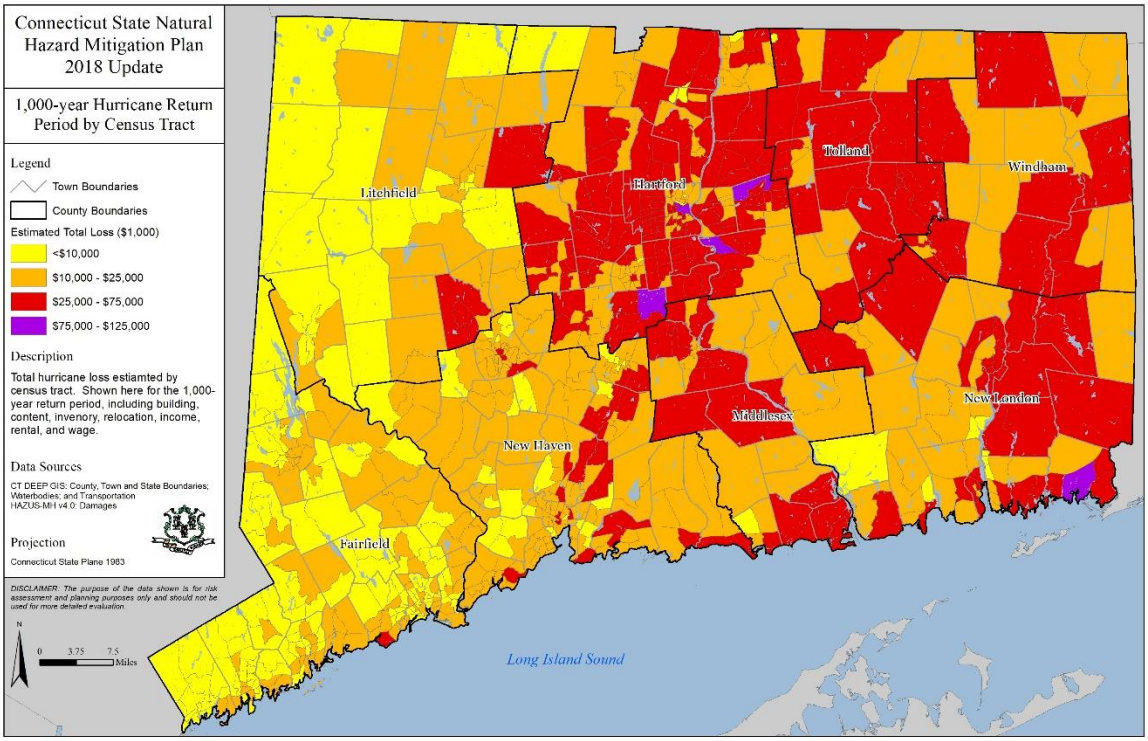

Figure 2-63: Estimated 1,000-year Hurricane Return Period by Census Tract

Table 2-91: Estimated Total Losses for Hurricane Return Periods. Shown in thousands of dollars.

Jurisdiction	10-yr	20-yr	50-yr	100-yr	200-yr	500-yr	1,000-yr	Total
Fairfield	$0	$5,381	$0	$494,016	$795,624	$3,511,912	$1,998,134	$6,805,067
Hartford	$0	$14,055	$11,685	$558,773	$950,393	$1,497,097	$7,287,319	$10,319,322
Litchfield	$0	$862	$0	$70,962	$56,906	$168,713	$678,390	$975,833
Middlesex	$0	$5,410	$36,480	$123,165	$460,938	$685,278	$891,644	$2,202,915
New Haven	$0	$9,844	$12,063	$583,958	$1,269,932	$3,983,949	$3,312,166	$9,171,912
New London	$610	$24,504	$593,660	$208,674	$627,831	$745,343	$1,835,120	$4,035,742
Tolland	$0	$4,491	$26,316	$83,832	$258,066	$180,860	$976,405	$1,529,970
Windham	$148	$8,159	$150,565	$67,445	$246,538	$137,241	$667,791	$1,277,887
Totals	$758	$72,707	$830,769	$2,190,825	$4,666,228	$10,910,393	$17,646,969	$36,318,649

The Hazus simulations for several historical storms and their associated storm tracks that were used in the past plans were run in the updated version of Hazus (v4.0). The results of these simulations help to estimate potential maximum damages that would occur in the present day given the same track and characteristics of an individual event. It should be noted that Hazus only considers wind damage for its hurricane simulation and does not account for rain and flooding effects. This is important to note because much of the historic impacts of hurricanes experienced by the state have come in the form of severe rain and flooding. Thus the damage estimations and shelter/displacement estimates have the potential of being higher for each scenario when one considers the potential threat of flooding that is associated with hurricanes.

Table 2-92 shows the estimated tonnage of debris that would be generated by wind damage for each storm scenario, based on Census 2010 structure data and other sources of data in Hazus.

Table 2-93 shows storm debris for the three counties that were projected to generate the most wind damage debris for a given storm scenario. If one compares the figures showing peak wind gusts and hurricane track with these tables, one will see a correlation between the track and the counties which would be hardest hit by a potential storm scenario. According to the HAZUS Hurricane User Manual: 'The Eligible Tree Debris columns provide estimates of the weight and volume of downed trees that would likely be collected and disposed at public expense. As discussed in Chapter 12 of the Hazus Hurricane Model Technical Manual, the eligible tree debris estimates produced by the Hurricane Model tend to underestimate reported volumes of debris brought to landfills for a number of events that have occurred over the past several years. This indicates that that there may be other sources of vegetative and non-vegetative debris that are not currently being modeled in Hazus. For landfill estimation purposes, it is recommended that the Hazus debris volume estimate be treated as an approximate lower bound. Based on actual reported debris volumes, it is recommended that the HAZUS results be multiplied by three to obtain an approximate upper bound estimate. It is also important to note that the Hurricane Model assumes a bulking factor of 10 cubic yards per ton of tree debris. If the debris is chipped prior to transport or disposal, a bulking factor of 4 is recommended. Thus, for chipped debris, the eligible tree debris volume should be multiplied by 0.4'. The probabilistic analysis for the 100-year event indicate over 180 thousand tons of brick and wood debris, 3 tons of concrete and steel debris, and nearly 270 thousand tons in tree debris, and for the 1,000-year event, nearly 1.4 million tons of brick and wood debris, 5,000 tons of concrete and steel debris, and more than 11 million tons in tree debris are estimated.

Table 2-92: Estimated Debris from Wind Damage by Material Type per Hazus Storm Scenario.

Storm Scenario	Brick, Wood and Other (in tons)	Reinforced Concrete and Steel (in tons)	Eligible Tree Debris (in tons)	Total (in tons)
1938 Unnamed	982,081	2,987	884,811	1,869,879
1944 Unnamed	2,367	0	6,229	8,596
Carol	6,627	0	16,047	22,674
Donna	31,039	4	63,234	94,277
Gloria	116,105	1	170,345	286,451
Totals	1,138,219	2,992	1,140,666	2,281,877

Table 2-93: Counties Estimated to Generate the Greatest Amount of Debris for Hurricane Scenarios

Storm Scenario	3 Counties with Greatest Amount of Debris	Total Amount (in tons) for 3 Counties for Wood, Brick, and Other	Percentage of Total Tonnage for Wood, Brick and Other	Total Amount (in tons) for 3 Counties for Tree Debris	Percentage of Total Tonnage for Tree Debris
1938 Unnamed	Hartford, New Haven, New London	718,012	73%	539,385	61%
1944 Unnamed	New London, Windham, Middlesex	2,364	99.9%	5,877	94%
Carol	New London, Windham, Middlesex	6,570	99%	15,114	94$
Donna	New London, Hartford, Windham	25,321	82%	52,437	83%
Gloria	Hartford, New Haven, Middlesex	90,134	78%	108,768	64%

It is interesting to note that for certain storm scenarios, Hazus has shown that often times one county will generate the majority of all estimated damage. This most likely is a result of the potential tracks that were used in the simulations for historic storms when they made landfall in Connecticut. The state as a whole is vulnerable to the property and economic losses resulting from hurricane strikes.

Table 2-94,

Table 2-95, and Table 2-96 show various estimates statewide for property damages, economic losses, and sheltering needs of state residents as a result of a similar hurricane making landfall in Connecticut, as in the past. Again, the counties with the greatest need for sheltering, hospital needs, emergency food and water requirements, and property damage (both in estimated values and total number of structures damaged) coincide with the figures showing the peak wind gusts and hurricane storm tracks. As stated previously, the damage estimates from Hazus are based on wind damage by a hurricane and do not include damages and shelter needs from damages and property losses by flooding. This is important because depending on the characteristics of a potential hurricane (i.e., does it make landfall at low or high tide, does if pick up strength at the last moments before landfall, is there a stalled weather pattern and the storm produces more rain than anticipated, etc.), state and local officials will need to be aware and anticipate potential flooding that may accompany such a storm event.

Capital Stock Losses include the subcategories of building damages, contents damages, and inventory losses. Income losses include the subcategories of relocation costs, capital related losses, wage losses, and rental income losses. Loss estimates only consider costs and damages due to wind and due to the limitations of the Hazus hurricane model, do not calculate estimates for damages and losses for flooding, which can be a major impact from a hurricane.

Table 2-94: Total Estimated Building Damages per Storm Scenario Statewide (number of structures).

Storm Scenario	None	Minor	Moderate	Severe	Destruction
1938 Unnamed	961,438	201,970	48,961	4,502	2,091
1944 Unnamed	1,218,434	507	27	1	0
Carol	1,217,357	1,503	104	4	1
Donna	1,211,128	7,142	668	26	5
Gloria	1,002,924	17,521	800	38	5

Table 2-95. Estimated Sheltering Needs for Historic Storm Simulations

Storm Scenario	Total number of Displaced Households	Total Number of People Requiring Short Term Shelter	County with the Greatest Number Displace Households and People Requiring Shelter
1938 Unnamed	14,538	3,587	Hartford (4,533 households, 1,178 people needing temp. shelter)
1944 Unnamed	1	0	New London (1 households, 0 people needing temp. shelter)
Carol	18	2	New London (18 households, 2 people needing temp. shelter)
Donna	172	38	New London (154 households, 38 people needing temp. shelter)
Gloria	729	178	Hartford (313 households, 80 people needing temp. shelter)

Table 2-96: Estimated Direct Economic Losses for Buildings Statewide.

Storm Scenario	Capital Stock Losses	Income Losses	Total Estimated Losses
1938 Unnamed	$11,091,797	$1,147,106	$12,238,903
1944 Unnamed	$45,223	$615	$45,837
Carol	$110,614	$2,891	$113,506
Donna	$436,479	$18,042	$454,521
Gloria	$1,391,568	$71,201	$1,462,769

Storm surge inundation is a significant threat to the population along the coast. To estimate the population exposed to the surge inundation areas, an exposure analysis methodology was used. Table 2-97 provides a breakdown by county of the numbers of people intersecting the surge inundation areas. This analysis was conducted by intersecting census block groups with SLOSH data using GIS. In instances where only a portion of the census block group intersected the hazard area, only that same portion of the population is counted. For example, if 20-percent of the census block group intersects with an intermix area, only 20-percent of the population number for that census block group is counted). This results in estimated values and there is potential for error with this methodology, but this is considered a more refined approach than assuming 100-percent of the population is contained within the 20-percent of the census block group that intersects the hazard area. Statewide, approximately 1.6% (Category 1) to 6.8% (Category 4) of the population is exposed to hurricane storm surge inundation areas. Fairfield County, Middlesex County, New Haven County, and New London County are the only four counties in the State that exposure to storm surges from a tropical cyclone.

Of the total State population, economically disadvantaged populations are more vulnerable because they are likely to evaluate their risk and make decisions based on the major economic impact to their family and may not have funds to evacuate. The population over the age of 65 is also more vulnerable, and they may physically have more difficulty evacuating. The elderly are considered most vulnerable because they require extra time or outside assistance during evacuations. Also, they are more likely to seek or need medical attention, which may not be available because of isolation during a storm event.

Table 2-97: Estimated Population in Category 1 through 4 SLOSH Zones

Jurisdiction	Total Population	Population Intersecting Category 1	Population Intersecting Category 2	Population Intersecting Category 3	Population Intersecting Category 4
Fairfield	916,829	23,963	47,685	77,028	105,999
Hartford	894,014	0	0	0	0
Litchfield	189,927	0	0	0	0
Middlesex	165,676	5,203	8,363	11,515	13,544
New Haven	862,477	21,921	42,436	69,736	98,346
New London	274,055	7,346	12,484	18,686	24,144
Tolland	152,691	0	0	0	0
Windham	118,428	0	0	0	0
Totals	3,574,097	58,433	110,968	176,965	242,034

As Connecticut continues to develop, the State will remain vulnerable to the impacts of wind and storm surge from tropical storms and hurricanes. Improved mapping and higher regulatory standards will mitigate future impacts to new and redeveloped areas in defined hazard zones.

Residents may be displaced or require temporary to long-term sheltering as a result of a hurricane or tropical storm. In addition, downed trees, damaged buildings and debris carried by high winds can lead to injury or loss of life. Socially vulnerable populations are most susceptible, based on a number of factors including their physical and financial ability to react during a hazard and the location and construction quality of their housing.

2.26.3 Changes in Development

An understanding of population and development trends can assist in planning for future development and ensuring that appropriate mitigation, planning, and preparedness measures are in place. The State considered the following factors to examine previous and potential conditions that may affect hazard vulnerability:

- Potential or projected development
- Projected changes in population
- Other identified conditions as relevant and appropriate

Since the entire State is exposed to tropical cyclones, any new development and increases in population will be vulnerable to the impacts from these events. As discussed in Section 1.2.4 (Land Use and Development), Fairfield County and Hartford County continue to see the majority of development. As of 2017, approximately 68.3% of the building permits statewide were in Fairfield and Hartford Counties, and both of these counties accounted for nearly half of all the housing units in the State. If recent trends in development continue, these two Counties will continually increase their vulnerability to tropical cyclones; especially coastal communities in Fairfield County where communities may be vulnerability to the combined effects of wind and storm surge. Statewide, there is an

estimated 2.2% change in population expected between 2020 and 2040; the increases in population will increase the State population's vulnerability to tropical cyclone.

2.26.4 Hazard Ranking

Quantitative risk assessment, to the degree possible, has been completed for tropical cyclone using the methodology described in the Hazard Analysis and Ranking methodology Section 2.6 of this chapter. Scores for each jurisdiction were calculated based on population, building permits, geographic extent, average score from local plan rankings, average hazard concern, and measures of historical impact including injuries and deaths, property damage, and the number of reported events. The number of impacted critical facilities was also incorporated, and ranked based on the number of facilities impacted in relation to the number of total critical facilities in Connecticut. As shown in Table 2-98, the composite tropical cyclone rank shows Fairfield, Hartford, Middlesex, New Haven, and New London counties as medium-high risk; and Litchfield, Tolland, and Windham counties as medium risk.

Table 2-98: Hazard Ranking by County for Tropical Cyclone

County	Hazard Concern Rank	Local Plans Hazard Rank	Geographic Extent Rank	Population Density Rank	Building Permits Rank	Facility Intersect Rank	Ann. Events Rank	Ann. Losses Rank	Injury & Death Rank	Composite Ranks
Fairfield	High	High	Medium	High	High	Medium-High	Low	Medium-High	Low	**Medium-High**
Hartford	High	High	Medium	High	High	Medium-Low	Low	Medium	Low	**Medium-High**
Litchfield	High	High	Medium	Low	Low	Medium-Low	Low	Medium-Low	Low	**Medium**
Middlesex	High	High	Medium-High	Medium-Low	Medium-Low	Medium-High	Low	Medium-High	Low	**Medium-High**
New Haven	High	High	Medium	High	Medium	Medium-High	Low	Medium-High	Low	**Medium-High**
New London	High	High	High	Medium-Low	Medium-Low	Medium-High	Low	Medium-High	Low	**Medium-High**
Tolland	High	High	Medium-High	Medium-Low	Medium-Low	Medium-Low	Low	Medium-Low	Low	**Medium**
Windham	High	High	Medium-High	Medium-Low	Low	Medium-Low	Low	Medium-Low	Low	**Medium**

2.27 Wildland Fire Hazard Profile

2019 Plan Update Changes

- The wildland fire hazard profile has been significantly enhanced to include a detailed hazard description, location, extent, impact (severity, warning time and secondary impacts), previous occurrences, probability of future occurrence, and potential impacts of climate change

- New and updated figures from state agencies are incorporated
- Potential change in climate and its impacts on the wildland fire hazard is discussed.
- Previous occurrences were updated with events that occurred between 2013 and 2017

2.27.1 Hazard Description

A wildland fire can be defined as any non-structural fire that occurs in the wildland. Three distinct types of wildland fires have been defined and include naturally occurring wildland fire, human-caused wildland fire, and prescribed fire. Many of these are highly destructive and can be very uncontrollable. They occur in forested, semi-forested, or less developed area. Wildland fires can be caused by lightning, human carelessness, and arson Wildland fires can be naturally occurring—such as those ignited when lightning or wind-falling trees collide with power lines—or caused by humans, which is the primary cause of all types of fires. Wildland fires result in the uncontrolled destruction of forests, brush, field crops, grasslands, real estate, and personal property, and have secondary impacts on other hazards such as flooding, by removing vegetation and destroying watersheds.[181]

Connecticut's high population density has created land use pressures in which more people are moving from urban areas to build homes in rural wildland areas.[182] With more people living in the State's forested areas, the number of fires started could increase. A potentially explosive combination is created when hazardous wildland fuels interface home development, and an increased risk of human-caused ignition come together under extreme fire weather conditions.

Wildfires occur when all the necessary elements of a fire come together in a wooded or grassy area. According to the U.S. Bureau of Land Management, in order to have any type of fire, wildland or otherwise, three elements must be present:

1. Fuel – something which will burn (e.g., vegetation, houses, paper, etc.);
2. Heat – enough to make the fuel burn (e.g., match, spark from a machine, or lightning); and
3. Oxygen – air around (Figure 2-64).[183]

[181] http://ready.nj.gov/mitigation/2014-mitigation-plan.shtml
[182] https://www.fs.fed.us/ne/newtown_square/publications/resource_bulletins/pdfs/2004/ne_rb160.pdf
[183] http://www.ct.gov/deep/cwp/view.asp?a=2720&q=325652

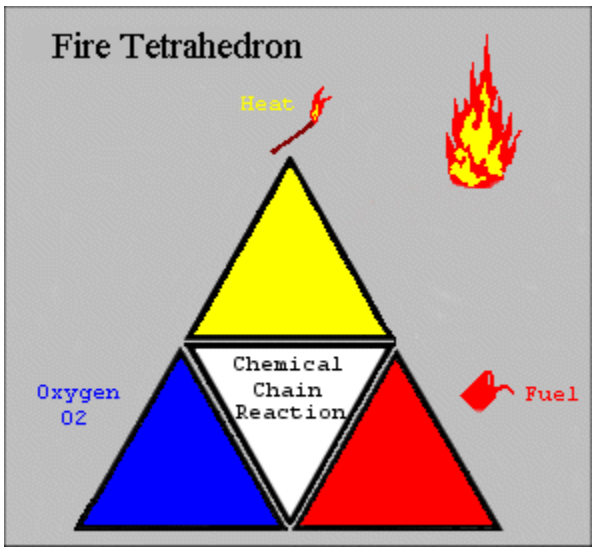

Figure 2-64: Fire Tetrahedron, Fire Safety Advice Centre

The cause of a wildland fire can be natural (e.g., lightning strike) or human induced (e.g., intentional acts of arson, negligently discarded cigarettes, unattended open burning of debris, unattended campfires, etc.). When not quickly detected and contained, wildland fires have the potential to cause extensive damage to property and threaten human life. Other impacts may include:

- Increase in the potential for flooding, debris flows, or landslides;
- Increase in pollutants in the air that can cause significant health problems;
- Destruction of timber, forage, wildlife habitats, scenic vistas, and watershed, on a temporary basis;
- Development of long-term impacts such as reduced access to recreational areas, destruction of community infrastructure, and cultural and economic resources.

Firefighters are trained to fight either structural (building) fires or wildland fires, and they typically maintain a primary focus on one and a secondary focus on the other. Structural firefighting focuses on reducing the heat or the oxygen side of the fire tetrahedron. With wildland fires, firefighters focus their main efforts on reducing the fuel side of the triangle. There are four types of fuels which are a concern for wildland fires:

- Ground Fuels – organic soils, forest floor duff, stumps, dead roots, and buried fuels;
- Surface Fuels – litter layer, downed woody materials, dead and live plants to two meters in height;

- Ladder Fuels – vine and draped foliage fuels; and
- Canopy Fuels – tree crowns.

The abundance of a specific fuel type will help to determine which wildland areas may be at higher risk for a specific class of wildland fire: surface fire (surface and ladder fuels); ground fire (ground fuels); or crown fire (ladder and canopy fuels).

An important aspect to any fire is how it behaves. The USDA Forest Service defines fire behavior as, "the manner in which fuel ignites, flame develops, and fire spreads as determined by the interaction of fuel, weather, and topography". There are three important weather factors that affect fire start, fire spread, and fire weather danger:

- Wind – most important factor since it dries out fuel and drives a fire;
- Relative humidity – affects fuel moisture; and
- Precipitation.

CT DEEP Division of Forestry Forest Fire Prevention and Control

The Connecticut Department of Energy and Environmental Protection (DEEP) is tasked with conserving, improving, and protecting the natural resources and environment of the state of Connecticut. Within DEEP, the Division of Forestry maintains an active forest fire prevention program and a specially trained force of firefighting personnel to combat fires that burn an average of 500 acres of woodland per year. The Division also has crews that are able to assist the US Forest Service in controlling large fires that take place outside of Connecticut.[184]

Fire Seasons

The forest fire season in Connecticut can be broken down into spring, summer, and fall. Each portion of the forest fire season is attributed to different conditions which can result in different fire behavior.

Spring Fire Season: Normally mid-March to mid-May

In the spring, deciduous trees are still bare and the warm spring sun heats up the forest fuels; typically grasses, leaves, twigs, branches and decaying material in the soil. As the days grow longer and hotter, the fuels that are most exposed dry out very fast. Grasses, twigs, and very small branches are called '1-hour fuels' as they can take on atmospheric conditions within an hour. Larger fuels take longer to dry out. Typically fires that start in the spring burn just the surface leaves and can spread very fast. Generally they cause little, long term damage to the forest.[185]

Summer Fire Season: Normally mid-May through September

[184] http://www.ct.gov/deep/site/default.asp
[185] http://www.ct.gov/deep/cwp/view.asp?a=2697&q=322782

Entering the summer, trees are fully leafed out and past precipitation (drought) becomes the most critical condition. Due to shade from trees and shrubs and higher humidity, forest fuels dry slowly. As vegetation grows, it draws moisture from the soil. As a result, summer fires tend to grow more slowly than a spring fire but tend to burn deeper into the ground. Fires that burn deeper into the ground burn organic matter in the soil (including tree roots), are more difficult to suppress, and cause extensive mortality to vegetation.[185]

Fall Fire Season: Normally October through snow fall

The fall fire season takes on some of the characteristics of both the spring and the summer. Falling leaves are dry but not quite cured. Although the sun is lower and drying capacity is diminished, fires can still spread rapidly. [185]

Fire Suppression

Fire suppression is the primary activity utilized at all levels of fire management (Federal, state, and local) to deal with wildland fires. Although fire suppression activities can reduce or eliminate the threat of small wildland fires, they result in continued growth of vegetation that would have otherwise been naturally reduced by fire. This vegetation provides a larger fuel load, increasing fire susceptibility.

In addition to fire suppression activities, State and local fire departments engage in many prevention activities, including public awareness activities and limitations on open burning, especially during increased fire danger levels. Some communities also proactively engage in local wildland fire mitigation programs, such as the National Fire Protection Association's Firewise Program, that encourage fire safety and prevention activities at a neighborhood or property-owner level, including but not limited to fuel reduction, defensible space creation, fire resistant construction, and emergency planning.

2.27.2 Location

According to the U.S. Department of Agriculture, about 60-percent of Connecticut is forested, nearly 1.9 million acres. Private homeowners own 73-percent of the forested areas of the state.[186] The Connecticut River Valley is comprised of oak- and hickory-dominated woodlands. The northwestern corner of the State, home to the foothills of the Berkshires and New England Highlands, begins to be dominated by northern hardwoods. Litchfield County, in the northwest corner of Connecticut, is the most heavily forested with more than 75-percent of its land area is covered by forests. The majority of the state's other counties are also dominated by forests. Only in the more heavily urbanized counties of Fairfield and New Haven does forested area dip below 50-percent (USDA 2004).

Connecticut's forests are biologically diverse with a wide variety of shrubs, trees, herbaceous plants, lichens, and mosses. The diversity in flora provides habitat and food for a wide range of fauna. In terms of dominance, blueberry is the most common shrub species and white pine is the most common softwood tree species. The variety of hardwood tree species are dominated by red maple, black cherry, and sweet birch. Connecticut's forests have changed in composition during the state's history as the result of various pressures

[186] http://www.ct.gov/deep/cwp/view.asp?a=2697&q=322788&depNav_GID=1631

including farming, logging, disease (Dutch elm disease), powerful storm events, invasive species, and urban sprawl.[187]

In addition to being one of the most heavily forested states in the nation, Connecticut also ranks among the most densely populated, and in turn, among the highest in terms of-percentage of land considered in WUI areas. According to 2010 U.S. Census data, Connecticut ranks as the fourth most densely populated state in the United States with more than 700 persons per square mile. In a 2005 study, Connecticut ranked number one in the nation with 72-percent of its land mass considered in WUI areas (ranking number 2 with 60-percent of its land mass considered located in intermix areas, and ranking number 3 with 12-percent of its land mass considered interface areas). These high-percentages of WUI areas is a result of people's desire to move from the traditional highly urbanized geographic areas of the state to more suburban and rural wildland areas of the state. Figure 2-65 illustrates wildland fire hazard areas based on 2010 WUI map products developed by the SILVIS Lab at the University of Wisconsin-Madison. The northeast and northwest corners of Connecticut are predominantly rural and forested, with other large sections of rural landscape in the southeast corner and south central parts of the state. Fuels are primarily hardwood leaf litter, as over 80-percent of the woodlands are hardwood species. Volatile fuels of concern include mountain laurel, huckleberry, greenbrier, and phragmites which are found along coastal and wetland areas. The northwestern corner has the steepest terrain.

[187] https://www.fs.fed.us/ne/newtown_square/publications/resource_bulletins/pdfs/2004/ne_rb160.pdf

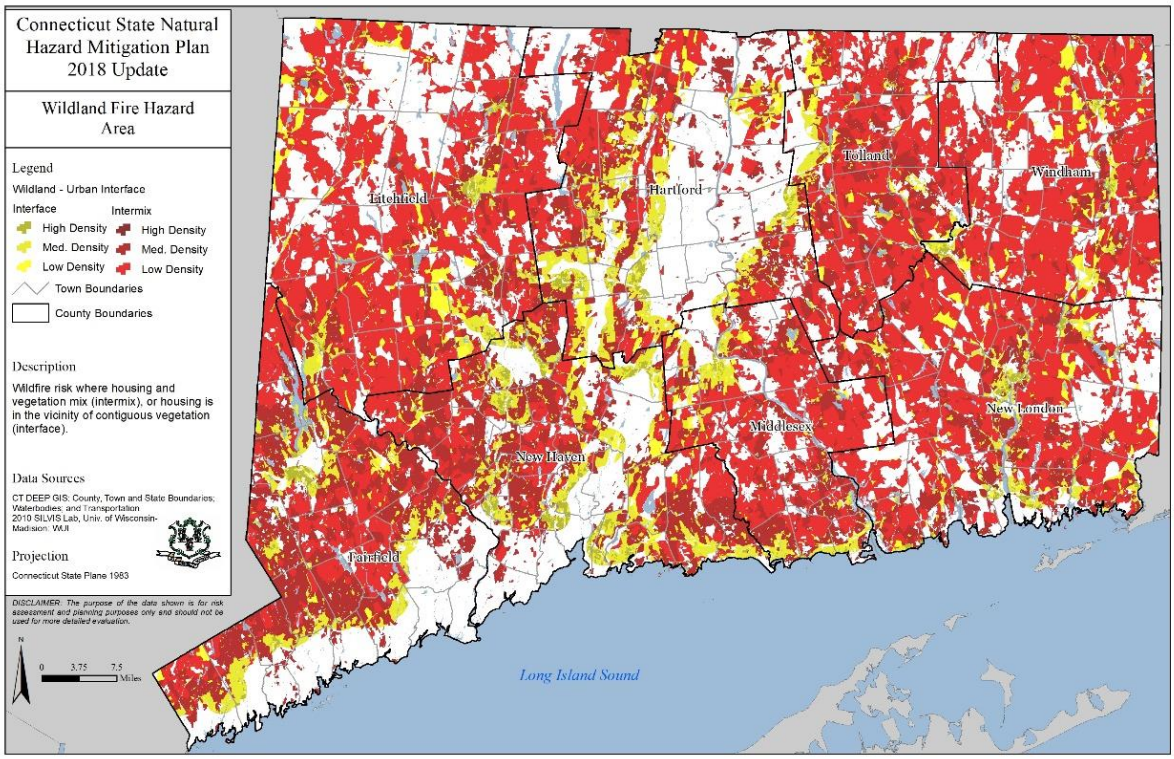

Figure 2-65: Wildfire Hazard Areas

The areas considered most vulnerable to wildland fire risks and losses are those classified as WUI areas. These areas and the people and structures located within these areas will continue to be vulnerable to the risk of fires. However, the risk of wildland fires in Connecticut is currently managed through a variety of State and local activities, such as declining requests for open burning, and less uncontrolled or unsupervised interaction with forests and the natural environment as a whole. Wildland fire risk is also routinely addressed by the State through fire danger monitoring and fire suppression activities, as described in Chapter 3 and Appendix 3.

2.27.3 Extent

The extent (that is, magnitude or severity) of wildland fires depends on weather and human activity. The magnitude of wildland fire events is often characterized by their speed of propagation, total number of acres burned, and potential destructive impacts to people and property. The severity and impact of a wildland fire is greatly dependent on how it behaves (as described above), in combination with fire detection, control, and suppression capabilities.

The DEEP Division of Forestry issues Forest Fire Danger Ratings for Connecticut starting in the spring of each year. A National Fire Danger Rating system that utilizes two indexes is used in Connecticut: spread index and build up index, as shown in the table below.[188]

[188] http://www.ct.gov/deep/cwp/view.asp?a=2697&q=322782

The "spread" of a fire is predicted with the Spread Index, which is a numeric rating that corresponds with how fast a fire travels in 'Chains per Hour' (a chain is 66'). For example, if a prediction is made that the Spread Index will be 19, it means the fire is predicted to spread 1,254 feet (19 x 66') in an hour.[189]

Connecticut also uses a build-up index (BUI) that measures drought (shown in Table 2-99). The BUI is a relative scale that is based upon past precipitation.[190] It is a number that reflects the combined cumulative effects of daily drying and precipitation in fuels with a 10-day time lag constant. The BUI can represent three to four inches of compacted litter or can represent up to six inches or more of loose litter.[191]

Table 2-99: Build-Up Index

Rating or Class Days	Spread Index	Build Up Index
Low	0-10	0-22
Moderate	11-15	23-44
High	16-29	45-59
Very High	30-39	60-74
Extreme	> 40	> 75

Additionally, the State of Connecticut looks at Red Flag Warnings that are issued by the National Weather Service (NWS). Connecticut is divided between three different National Weather Service stations. Predictions for Hartford, Tolland and Windham counties are made in Taunton, MA; predictions for Litchfield County are made in Albany, NY and predictions for Fairfield, New Haven, Middlesex and New London counties are made in Brookhaven, NY.

A Red Flag warning is a warning to the firefighting community that extreme burning conditions are expected. Red Flag warnings are not a fire danger rating and they are not synonymous with High, Very High or Extreme fire danger. Red Flag warnings are issued when winds will be sustained or there will be frequent gusts above a certain threshold (normally 25 mph). In addition, relative humidity needs to be below 30-percent and precipitation for the previous 5 days has to have been less than 1/4-inch.[192]

In addition to the tools used by DEEP, there are several tools are available to estimate fire potential, extent, danger and growth, including (but not limited to) the following:

- **Wildland/Urban Interface (WUI)** is the area where houses and wildland vegetation coincide. Interface neighborhoods are found all across the United States, and include many of the sprawling areas that grew during the 1990s. Housing developments alter the structure and function of forests and other wildland areas.

[189] http://www.ct.gov/deep/cwp/view.asp?a=2697&q=322782
[190] http://www.ct.gov/deep/cwp/view.asp?a=2697&q=322782
[191] http://www.ncforestservice.gov/fire_control/pdf/technotes/FDTN03.pdf
[192] http://www.ct.gov/deep/cwp/view.asp?a=2697&q=322782&deepNav_GID=1631

The outcomes of the fire in the WUI are negative for residents; some may only experience smoke or evacuation, while others may lose their homes to a wildland fire. All states have at least a small amount of land classified as WUI. To determine the WUI, structures per acre and population per square mile are used. Across the United States, 9.3-percent of all land is classified as WUI. The WUI in the area is divided into two categories: intermix and interface. Intermix areas have more than one house per 40 acres and have more than 50-percent vegetation. Interface areas have more than one house per 40 acres, have less than 50-percent vegetation, and are within 1.5 miles of an area over 1,235 acres that is more than 75-percent vegetated.[193]

- Concentrations of WUI can be seen along the east coast of the United States, where housing density rarely falls below the threshold of one housing unit per 40 acres and forest cover is abundant. In the mid-Atlantic and north central regions of the United States, the areas not dominated by agriculture have interspersed WUI and low density vegetated areas. Areas where recreation and tourism dominate are also places where WUI is common, especially in the northern Great Lakes and Missouri Ozarks.
- **Wildland Fire Assessment System (WFAS)** is an Internet-based information system that provides a national view of weather and fire potential, including national fires danger, weather maps and satellite-derived "greenness" maps. As per the USFS, the WFAS was developed by the Fire Behavior unit at the Fire Sciences Laboratory in Missoula, Montana, and is currently supported and maintained at the National Interagency Fire Center (NIFC) in Boise, Idaho.
- As per the NWS, each day during the fire season, national maps of selected fire weather and fire danger components of the National Fire Danger Rating System (NFDRS) are produced by the WFAS. The USFS indicates that the Fire Danger Rating level takes into account current and antecedent weather, fuel types, and both live and dead fuel moisture. This information is provided by local station managers.

[193] Stewart et al. 2006. "The wildand-urban interface in the United States." U.S. Department of Agriculture. Newtown Square, PA.

- **Table** 2-100 describes the fire danger ratings and color codes.

Table 2-100: Fire Danger Rating and Color Code, Wildland Fire Assessment System

Fire Danger Rating and Color Code	Description
Low (L) (Dark Green)	Fuels do not ignite readily from small firebrands although a more intense heat source, such as lightning, may start fires in duff or punky wood. Fires in open cured grasslands may burn freely a few hours after rain, but woods fires spread slowly by creeping or smoldering, and burn in irregular fingers. There is little danger of spotting.
Moderate (M) (Light Green or Blue)	Fires can start from most accidental causes, but with the exception of lightning fires in some areas, the number of starts is generally low. Fires in open cured grasslands will burn briskly and spread rapidly on windy days. Timber fires spread slowly to moderately fast. The average fire is of moderate intensity, although heavy concentrations of fuel, especially draped fuel, may burn hot. Short-distance spotting may occur, but is not persistent. Fires are not likely to become serious and control is relatively easy.
High (H) (Yellow)	All fine dead fuels ignite readily and fires start easily from most causes. Unattended brush and campfires are likely to escape. Fires spread rapidly and short-distance spotting is common. High-intensity burning may develop on slopes or in concentrations of fine fuels. Fires may become serious and their control difficult unless they are attacked successfully while small.
Very High (VH) (Orange)	Fires start easily from all causes and, immediately after ignition, spread rapidly and increase quickly in intensity. Spot fires are a constant danger. Fires burning in light fuels may quickly develop high-intensity characteristics such as long-distance spotting and fire whirlwinds when they burn into heavier fuels.
Extreme (E) (Red)	Fires start quickly, spread furiously, and burn intensely. All fires are potentially serious. Development into high-intensity burning will usually be faster and occur from smaller fires than in the very high fire danger class. Direct attack is rarely possible and may be dangerous except immediately after ignition. Fires that develop headway in heavy slash (trunks, branches, and tree tops) or in conifer stands may be unmanageable while the extreme burning condition lasts. Under these conditions the only effective and safe control action is on the flanks until the weather changes or the fuel supply lessens.

- The Fire Potential Index (FPI) is derived by combining daily weather and vegetation condition information and can identify the areas most susceptible to fire ignition. The combination of relative greenness and weather information identifies the moisture condition of the live and dead vegetation. The weather information also identifies areas of low humidity, high temperature, and no precipitation to determine which areas are most susceptible to fire ignition. The FPI enables local and regional fire planners to quantitatively measure fire ignition risk (USGS 2005). The United States Forest Service provides FPI maps on a daily basis. The scale ranges from 0 (low) to 100 (high). The calculations used in the NFDRS are not part of the FPI, except for a 10-hour moisture content.[194]

- Fuel Moisture (FM) content is the quantity of water in a fuel particle expressed as a percent of the oven-dry weight of the fuel particle. The NWS indicates that the FM

[194] Burgan et al. 2000. "Fuel Models and Fire Potential from Satellite and Surface Observations."

content is an expression of the cumulative effects of past and present weather events and must be considered in evaluating the effects of current or future weather on fire potential. FM is computed by dividing the weight of the "water" in the fuel by the oven-dry weight of the fuel and then multiplying by 100 to get the-percent of moisture in a fuel.

- NOAA states that there are two kinds of FM: live and dead. Live FM is much slower to respond to environmental changes and is most influenced by things such as a long drought period, natural disease and insect infestation, annuals curing out early in the season, timber harvesting, and changes in the fuel models caused by being blown down from windstorms and ice storms. Dead FM is the moisture in any cured or dead plant part, whether attached to a still-living plant or not. Dead fuels absorb moisture through physical contact with water (such as rain and dew) and absorb water vapor from the atmosphere. The drying of dead fuels is accomplished by evaporation. These drying and wetting processes of dead fuels are such that the moisture content of these fuels is strongly affected by fuel sizes, weather, topography, decay classes, fuel composition, surface coatings, fuel compactness, and arrangement.[195]

- Fuels are classified into four categories that respond to changes in moisture. This response time is referred to as a time lag. A fuel's time lag is proportional to its diameter and is loosely defined as the time it takes a fuel particle to reach two-thirds of its way to equilibrium with its local environment. The four categories include:

  - 1-hour fuels: up to 0.25-inch diameter – fine, flashy fuels that respond quickly to weather changes. Computed from observation time, temperature, humidity, and cloudiness.

  - 10-hour fuels: 0.25-inch to 1-inch diameter - computed from observation time, temperature, humidity, and cloudiness or can be an observed value.

  - 100-hour fuels: 1-inch to 3-inch diameter - computed from 24-hour average boundary condition composed of day length (daylight hours), hours of rain, and daily temperature/humidity ranges

  - 1,000-hour fuels: 3-inch to 8-inch diameter - computed from a seven-day average boundary condition composed of day length, hours of rain, and daily temperature/humidity ranges.[196]

- The **Haines Index**, also known as the Lower Atmosphere Stability Index, is a fire-weather index based on stability and moisture content of the lower atmosphere that

[195] Schroeder, M. and Buck, J. 1970. "Fire Weather." U.S. Department of Agriculture.
[196] https://www.nps.gov/articles/understanding-fire-danger.htm

measures the potential for existing fires to become large fires. It is named after its developer, Donald Haines, a Forest Service research meteorologist, who did the initial work and published the scale in 1988.[197]

- The Haines Index can range between two and six. The drier and more unstable the lower atmosphere is, the higher the index. It is calculated by combining the stability and moisture content to the lower atmosphere into a number that correlates well with large fire growth. The stability term is determined by the temperature difference between two atmospheric layers; the moisture term is determined by the temperature and dew point difference. The index has shown to correlate with large fire growth on initiating and existing fires where surface winds do not dominate fire behavior.[198] The Haines Index levels are described below:
  - Very Low Potential (2) – moist, stable lower atmosphere
  - Very Low Potential (3)
  - Low Potential (4)
  - Moderate Potential (5)
  - High Potential (6) – dry, unstable lower atmosphere
- The SPC states that the Haines Index is intended to be used all over the United States. It is adaptable for three elevation regimes: low elevation, middle elevation, and high elevation. Low elevation is for fires at or very near sea level. Middle elevation is for fires burning in the 1,000 to 3,000 feet in elevation range. High elevation is intended for fires burning above 3,000 feet in elevation.

2.27.4 Primary and Secondary Impacts

Wildfires can increase the probability of other natural disasters, specifically floods and mudflows. Wildfires, particular large-scale fires, can dramatically alter the terrain and ground conditions, making land already devastated by fire susceptible to floods. Lands impacted by wildfire increase the risk of flooding and mudflow in those areas impacted by wildfire. Normally, vegetation absorbs rainfall, reducing runoff. However, wildfires leave the ground charred, barren, and unable to absorb water; thus, creating conditions perfect for flash flooding and mudflows. Flood risk in these impacted areas remain significantly higher until vegetation is restored, which can take up to five years after a wildfire.[199]

Flooding after a wildfire is often more severe, as debris and ash left from the fire can form mudflows. During and after a rain event, as water moves across charred and denuded

[197] Storm Prediction Center. n.d. "Haines Index." National Oceanic and Atmospheric Administration. On-Line Address: http://www.spc.noaa.gov/exper/firecomp/INFO/hainesinfo.html
[198] http://www.fs.fed.us/
[199] https://www.fema.gov/news-release/2017/11/14/4344/flood-after-fire-increased-risk

ground, it can also pick up soil and sediment and carry it in a stream of floodwaters. These mudflows have the potential to cause significant damage to impacted areas. Areas directly affected by fires and those located below or downstream of burn areas are most at risk for flooding.

2.27.5 Severity

Potential losses from wildland fire include human life, structures and other improvements, and natural resources. Given the immediate response times to reported wildland fires, the likelihood of injuries and casualties is minimal. Smoke and air pollution from wildland fires can be a health hazard, especially for sensitive populations including children, the elderly, and those with respiratory and cardiovascular diseases. Wildland fire may also threaten the health and safety of those fighting the fires. First responders are exposed to the dangers from the initial incident and after-effects from smoke inhalation and heat stroke. In addition, wildland fire can lead to ancillary impacts such as landslides in steep ravine areas and flooding caused by the impacts of silt in local watersheds.[181]

The magnitude of wildland fire events is often characterized by their speed of propagation, total number of acres burned, and potential destructive impacts to people and property. The severity and impact of a wildland fire is greatly dependent on how it behaves, in combination with fire detection, control, and suppression capabilities.

2.27.6 Warning Time

Wildfires are often caused by humans, intentionally or accidentally. There is no way to predict when one might break out. However, there are tools used to identify the possibility of fire weather in an area. Fire weather watches and red flag warnings are used to convey the possibility of severe fire weather to wildland fire agencies. Because fireworks often cause brush fires, extra diligence is warranted around the Fourth of July holiday when the use of fireworks is highest. Dry seasons and droughts are factors that greatly increase fire likelihood. Dry lightning may trigger wildland fires. Severe weather can be predicted; therefore, special attention can be paid during weather events that might include lightning. Reliable NWS lightning warnings are available on average 24 to 48 hours prior to a significant electrical storm.

The National Weather Service (NWS) issues Fire Weather Watches and Red Flag Warnings to alert fire departments and residents of the onset, or possible onset, of critical weather and dry conditions that could lead to rapid or dramatic increases in wildfire activity. The watches, warnings, and evacuation notices are science-based predictions that are intended to provide adequate time for evacuation.

A fire weather watch is issued by the NWS when the potential for severe fire weather exists in the near future. A watch is used when there is a relatively low probability of occurrence and less chance of verifying. The fire danger rating is usually in the high to extreme category. It is normally issued 12 to 24 hours in advance of the expected onset of severe fire weather conditions and typically in conjunction with the routine narrative forecasts. The area affected, onset time, and a statement describing the conditions will be included in the forecast. A Red Flag Warning is issued by the NWS to indicate the imminent danger of severe fire weather and a relatively high probability of occurring. The fire danger is usually

in the high to extreme category. A Red Flag Warning may or may not be preceded by a Fire Weather Watch. A Red Flag Warning will normally be issued for severe fire weather events less than 12 hours away from occurring. They are typically issued in conjunction with the routine narrative forecasts. The area affected, onset time, and a statement describing the conditions will be included in the forecast.[200]

If a fire does break out and spread rapidly, residents may need to evacuate within days or hours. A fire's peak burning period generally is between 1:00 p.m. and 6:00 p.m. Once a fire has started, fire alerting is reasonably rapid in most cases. The rapid spread of cellular and two-way radio communications in recent years has further contributed to a significant improvement in warning time.

2.27.7 Previous Occurrences and Losses

The State of Connecticut is one of the most heavily forested states in the United States. It is estimated that 1.8 million acres of forest and wildland cover the State.[201] While wildland fires have historically, and continue to be, a very frequent occurrence, the Division of Forestry estimates that these incidents burn less than a fraction of one-percent of the total forested acreage in the state. This is due to the fact that most wildland fires are quickly detected, contained, and suppressed before they are able to spread. See Figure 2-66 for a detailed map of the land cover of the State of Connecticut.

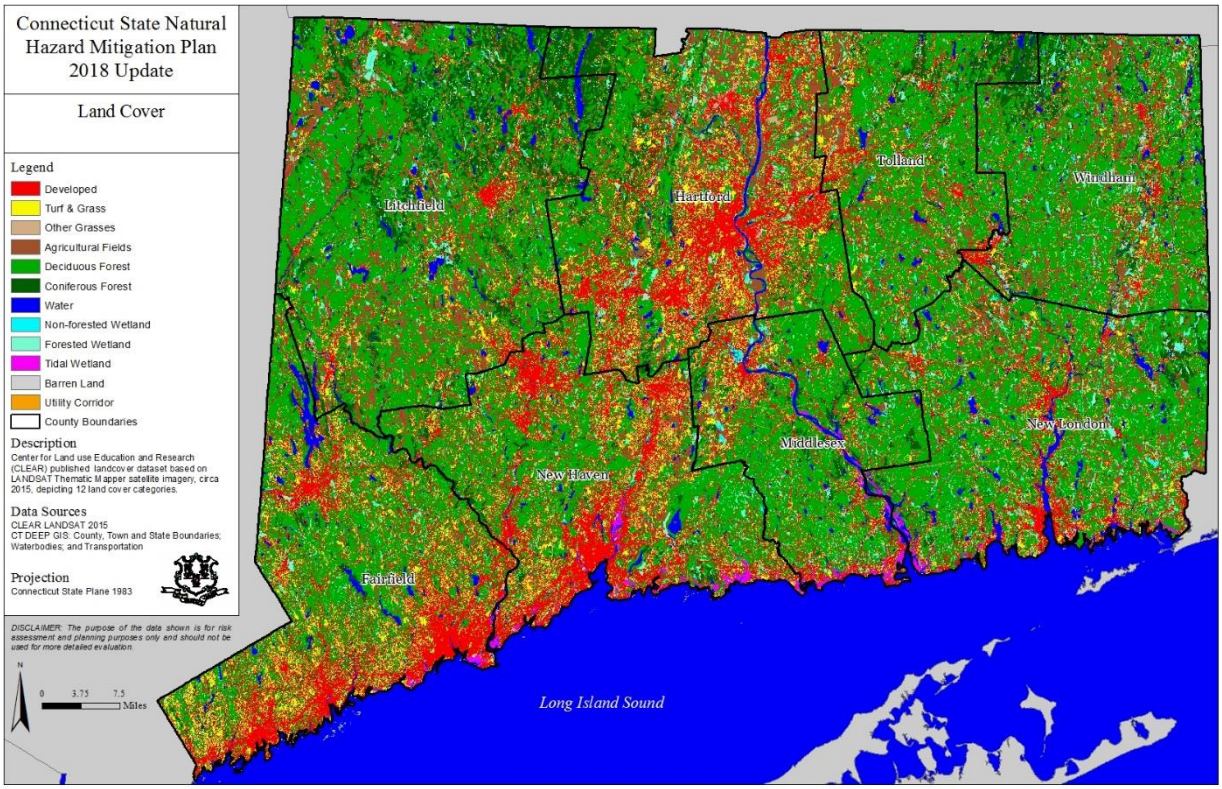

Figure 2-66: Forest and Other Land Cover, Connecticut 2015

[200] https://www.nps.gov/fire/wildland-fire/learning-center/fire-in-depth/watches-warnings.cfm
[201] https://www.fs.fed.us/nrs/pubs/ru/ru_fs19.pdf

Reporting of wildland fires is based on the National Fire Incident Reporting System (NFIRS). This system has greatly improved the accuracy of reported data concerning wildland fires (cause, size, etc.). However, it is believed that many additional small fires have occurred but gone unreported (Connecticut State HMP 2013). In 2016, 97 wildfires were reported to the National Interagency Fire Center (NIFC) and burned 243 acres in the State of Connecticut.[202]

[202] https://www.predictiveservices.nifc.gov/intelligence/2017_statssumm/fires_acres17.pdf

Table 2-101 summarizes the NFIRS data on reported wildland fire events from 2013-2017. According to these records, there have been 545 events reported between 2013 and 2017. The average fire size (total acres burned) per incident is very small at only 2.7 acres. Only one wildland fire incident in the past 5 years burned greater than 300 acres. This occurred in September 2016 and burned 381 acres.[203] During the past 5 years, the worst wildland fire year in terms of number of fires was 2016 with 778 separate wildland fire events. 2016 was also the worst year in terms of acres burned with 778 acres burned.

Many sources provided information regarding previous occurrences and losses associated with wildfire events throughout the State of Connecticut. The 2013 Plan discussed specific wildfire events that occurred in the State through 2013. For this 2019 Plan update, wildfire events were summarized between January 1, 2013 and December 31, 2017.

[203] https://www.geomac.gov/viewer/viewer.shtml

Table 2-101 summarizes events that occurred between 2013 and 2017. Please note that not all sources have been identified or researched. Additionally, loss and impact information for many events could vary depending on the source. Therefore,

Table 2-101 may not include all events that have occurred in the state and the accuracy of monetary figures discussed is based only on the available information identified during research for this HMP update. Lastly, it should be noted that both the NFIC and NCEI databases rely on reporting from similar sources, however the NFIC database includes far more wildfire events than the NCEI database. Therefore, the NFIC was considered to provide more comprehensive data and, as such, was used for this analysis.

Table 2-101: NFIC Wildland Fire Events in Connecticut, 2013-2017

Year	# of Events	# of Acres Burned
2013	76	238
2014	28	69
2015	76	159
2016	268	778
2017	97	243

FEMA Disaster Declarations

Between 1954 and 2017, the State of Connecticut has not been included in any wildfire-related major disaster (DR) or fire management assistance (FM) declarations.[204]

2.27.8 Probability of Future Events

Based on available data, wildland fires will continue to be a highly probable occurrence (>5 events per year) in Connecticut, though the size and severity of these events are deemed minimal due to the rapid detection, containment, and suppression of fire incidents. Estimating the approximate number of a catastrophic wildland fires to occur in Connecticut every year is next to impossible. This is because a number of variable factors impact the potential for a fire to occur and because some conditions (for example, ongoing land use development patterns, location, fuel sources) exert increasing pressure on the WUI zone.

Given the numerous factors that can impact urban fire and wildland fire potential, the likelihood of a fire event starting and sustaining itself should be gauged by professional fire managers on a daily basis.

Although the total land mass of Connecticut is much smaller in comparison to larger mid-western and western states, and recent history suggests that wildland fires are not currently a major hazard threat for the state overall, wildland fires may pose a greater threat in the future. This is due to a combination of factors, including but not limited to increasing population densities in WUI areas, increasing fuel loads due to disease, pests, and storm events that result in dieback of mature trees, and potentially drier, longer, and more severe fire seasons as a result of climate change. Each of these factors is described in more detail below.

Extreme weather events, including Tropical Storm Irene, Superstorm Sandy, Winter Storm Alfred, Winter Storm Nemo, and other snow/ice/wind events caused heavy damage and dieback to forested areas throughout the state. These impacts have resulted in a significantly increased amount of woody debris and fuel loads, increasing the probability of future wildland fire occurrences.

Due to the composition of the flora species that exist today in Connecticut's wildland areas and the unknown rate of transference of species from the current forest and wildland

[204] https://www.fema.gov/disasters

species to more southern and invasive species, it is difficult to project the exact risk or potential increased number of fire outbreaks which may occur in the future. However, what is known from past research on the topic of WUI areas is that education of private property owners and the mitigation efforts implemented by homeowners will be significantly important as the risk of wildland fires increases in the future. These educational and mitigation efforts will require a collaboration between government agencies (Federal, state, and local) and private property owners.[205]

The problem of vast WUI areas does exist within the state, although not to the degree that it exists in western states. Factors which lessen the risk for WUI areas in Connecticut include fuel-loading levels which are significantly less than other parts of the country; weather patterns producing median annual precipitation of greater than 42 inches which is well distributed throughout the year; and a landscaping preference which emphasizes large expanses of lawn around buildings. However, a change in these factors may increase the risk and potential number of wildland fire outbreaks experienced within WUI areas.

2.27.9 Climate Change Impacts

Fire is determined by climate variability, local topography, and human intervention. Hot, dry spells create the highest fire risk. Increased temperatures may intensify wildland fire danger by warming and drying out vegetation. A warmer climate would result in a longer wildland fire season. When climate alters fuel loads and fuel moisture, this changes the forest susceptibility to wildland fires. Climate changes also may increase winds that spread fires. Faster fires are harder to contain, and thus are more likely to expand into residential neighborhoods.

Providing projections of future climate change for a specific region is challenging. Shorter term projections are more closely tied to existing trends making longer term projections even more challenging. The further out a prediction reaches the more subject to changing dynamics it becomes.[181]

The USDA Forest Service states that wildland and forest ecosystems are very complex and it is difficult to project what the exact impacts of climate change may be on such systems. Climate change studies for the Northeast indicate that over the next century, the existing forest habitat range may move 300 to 500 miles northward. Thus trees and vegetation currently found in the forests and wildland areas of Connecticut today would be replaced over the next century with tree species and vegetation more adapted to a warmer climate. This change in the flora composition will have an effect on the existing risk of wildland fires due to changes in the fuel load wildland areas will develop. In addition it has been projected that climate change will have an effect on the state's wildland areas by creating a warmer climate more conducive to invasive plant species and destructive vectors that will change the fire regime.

Currently Connecticut is experiencing climate conditions to support invading insects such as the Asian Longhorned Beetle and the Emerald Ash Borer. These insects are already a concern for today's wildland areas in Connecticut. Though not a direct threat to humans, these invasive pests are a threat to the existing ecosystem. These species have the ability to

[205] Cohen, Jack, *The Wildland-Urban Interface Fire Problem*, Forest History Today, Fall 2008.

survive through Connecticut's current winter climate and threaten Connecticut's very mature forested areas across the state. The introduction of disease, pests, and invasive plants promotes the dieback of mature tree species thus creating increased available vegetative fuel loads in wildland areas. The direct threat to humans comes in the form of increased fire outbreaks in WUI areas which have the potential to burn hotter and greater amounts of acreage, thus putting people and their properties at increased risk.

Due to the composition of the flora species that exist today in Connecticut's wildland areas and the unknown rate of transference of species from the current forest and wildland species to more southern and invasive species, it is difficult to project the exact risk or potential increased number of fire outbreaks which may occur in the future. As the existing forests continue to change in age, structure, and species composition, wildland fire danger will continue to be an issue.

2.28 Wildland Fire Vulnerability Assessment

In addition to being one of the most heavily forested states in the nation, Connecticut also ranks among the most densely populated, and in turn, among the highest in terms of-percentage of land considered in WUI areas. According to 2010 U.S. Census data, Connecticut ranks as the fourth most densely populated state in the United States with more than 700 persons per square mile. In a 2005 study, Connecticut ranked number one in the nation with 72-percent of its land mass considered in WUI areas (ranking number 2 with 60-percent of its land mass considered located in intermix areas, and ranking number 3 with 12-percent of its land mass considered interface areas).[206] These high-percentages of WUI areas is a result of people's desire to move from the traditional highly urbanized geographic areas of the state to more suburban and rural wildland areas of the state.

Table 2-5 includes the number of infrastructure/facilities, building value and contents value by municipality. The state contains 3,327 state-owned buildings totaling $6.5 billion in building values; the building and contents values have not been estimated for all state-owned building. The State's total building and contents value only includes those buildings where value information was available and is intent for use in this plan and should not be used for other applications. The state contains 1,940 identified critical facilities in the categories of correctional institutions, EMS facilities, fire stations, gas stations with generator, health departments, law enforcement facilities, municipal solid waste, nuclear power plants, and storage tank farms. 1,846 of these critical facilities were able to be geospatially mapped for analysis.

For the purposes of this 2019 Plan update, all State buildings and local assets located in the wildland-urban interface hazard areas are exposed to wildfires. As the State of Connecticut continues to become more urbanized, the State facilities will need to be developed in locations that will serve the growing population.

2.28.1 Assessment of State Vulnerability and Potential Losses

[206] *Wildland-Urban Interface in the United States*, by Susan Stewart, Volker Radeloff, and Roger B. Hammer. Ranking was based on 2000 Census data and WUI mapping.

To assess the vulnerability of state-owned facilities provided by Connecticut DCS, an analysis was conducted with the wildfire hazard areas (WUI). Using ArcGIS, the wildland-urban interface hazard areas were overlaid on the State-owned facilities and critical facilities for Connecticut. Facilities located within the interface and intermix areas are exposed to the wildfire hazard.

Table 2-102 and Table 2-103 provide a breakdown of the numbers and values of state-owned buildings intersecting wildland intermix and wildland interface areas by county. A total of 1,078 state-owned buildings (32.4-percent of the total number of state-owned buildings in the state) are located within a wildland fire hazard area. This amounts to a total of $1.8 billion in building values exposed to the wildland fire hazard (28.1-percent of the total value of all state-owned buildings in the state).

Table 2-102: Number of State-Owned Facilities in the WUI, by County

County	Total State-Owned Buildings	Buildings Intersecting Intermix	Buildings Intersecting Interface	Total Buildings At Risk
Fairfield	205	42	15	57
Hartford	867	48	64	112
Litchfield	97	9	29	38
Middlesex	289	88	69	157
New Haven	561	121	73	194
New London	489	79	28	107
Tolland	628	104	169	273
Windham	191	51	89	140
Total	3,327	542	536	1,078

Table 2-103: Value of State-Owned Facilities in the WUI, by County

County	Total State-Owned Buildings	Buildings Intersecting Intermix	Buildings Intersecting Interface	Total Buildings At Risk
Fairfield	$328,049,014	$112,446,653	$56,736,569	$169,183,222
Hartford	$2,482,445,429	$15,198,887	$179,792,697	$194,991,584
Litchfield	$55,774,193	$4,416,798	$51,357,395	$55,774,193
Middlesex	$411,474,322	$24,701,724	$132,327,077	$157,028,801
New Haven	$824,597,613	$14,252,473	$139,502,299	$153,754,772
New London	$98,537,626	$14,353,447	$36,144,739	$50,498,186
Tolland	$2,016,260,747	$31,101,262	$773,628,416	$804,729,678
Windham	$253,657,976	$30,911,919	$204,036,538	$234,948,457
Total	$6,470,796,920	$247,383,163	$1,573,525,729	$1,820,908,892

The state contains 1,940 identified critical facilities in the categories of correctional institutions, EMS facilities, fire stations, gas stations with generator, health departments, law enforcement facilities, municipal solid waste, nuclear power plants, and storage tank farms. 1,846 of these critical facilities were able to be geospatially mapped for analysis.

Table 2-104 provides a breakdown of the numbers of critical facilities intersecting wildland intermix and wildland interface areas by county. A total of 986 critical facilities (53.4-percent of the total number of critical facilities in the state) are located within a wildland fire hazard area.

Table 2-104: Number of Critical Facilities in the WUI by County and Agency

County/Facility Types	All Critical Facilities	# within Intermix	Percent within Intermix	# within Interface	Percent within Interface	Total Facilities At Risk	Total Percent At Risk
Fairfield							
Correctional Institutions	4	1	25.0-percent	0	0.0-percent	1	25.0-percent
EMS	120	32	26.7-percent	31	25.8-percent	63	52.5-percent
Fire Stations	115	24	20.9-percent	28	24.3-percent	52	45.2-percent
Gas Station with Generator	22	6	27.3-percent	4	18.2-percent	10	45.5-percent
Health Departments	25	5	20.0-percent	5	20.0-percent	10	40.0-percent
Law Enforcement	35	8	22.9-percent	4	11.4-percent	12	34.3-percent
Municipal Solid Waste	43	8	18.6-percent	4	9.3-percent	12	27.9-percent
Nuclear Power Plant	0	0	0.0-percent	0	0.0-percent	0	0.0-percent
Storage Tank Farm	7	0	0.0-percent	0	0.0-percent	0	0.0-percent
Total for Fairfield	**371**	**84**	**22.6-percent**	**76**	**20.5-percent**	**160**	**43.1-percent**
Hartford							
Correctional Institutions	6	1	16.7-percent	0	0.0-percent	1	16.7-percent
EMS	80	13	16.3-percent	18	22.5-percent	31	38.8-percent
Fire Stations	141	19	13.5-percent	31	22.0-percent	50	35.5-percent
Gas Station with Generator	10	2	20.0-percent	0	0.0-percent	2	20.0-percent
Health Departments	26	0	0.0-percent	3	11.5-percent	3	11.5-percent
Law Enforcement	44	2	4.5-percent	8	18.2-percent	10	22.7-percent
Municipal Solid Waste	62	10	16.1-percent	8	12.9-percent	18	29.0-percent
Nuclear Power Plant	0	0	0.0-percent	0	0.0-percent	0	0.0-percent
Storage Tank Farm	8	0	0.0-percent	2	25.0-percent	2	25.0-percent

Total for Hartford	**377**	**47**	**12.5-percent**	**70**	**18.6-percent**	**117**	**31.0-percent**
Litchfield							
Correctional Institutions	0	0	0.0-percent	0	0.0-percent	0	0.0-percent
EMS	34	12	35.3-percent	14	41.2-percent	26	76.5-percent
Fire Stations	53	22	41.5-percent	21	39.6-percent	43	81.1-percent
Gas Station with Generator	8	3	37.5-percent	5	62.5-percent	8	100.0-percent
Health Departments	7	1	14.3-percent	5	71.4-percent	6	85.7-percent
Law Enforcement	25	10	40.0-percent	11	44.0-percent	21	84.0-percent
Municipal Solid Waste	29	17	58.6-percent	4	13.8-percent	21	72.4-percent
Nuclear Power Plant	0	0	0.0-percent	0	0.0-percent	0	0.0-percent
Storage Tank Farm	0	0	0.0-percent	0	0.0-percent	0	0.0-percent
Total for Litchfield	**156**	**65**	**41.7-percent**	**60**	**38.5-percent**	**125**	**80.1-percent**
Middlesex							
Correctional Institutions	1	0	0.0-percent	0	0.0-percent	0	0.0-percent
EMS	31	14	45.2-percent	11	35.5-percent	25	80.6-percent
Fire Stations	36	15	41.7-percent	15	41.7-percent	30	83.3-percent
Gas Station with Generator	8	5	62.5-percent	2	25.0-percent	7	87.5-percent
Health Departments	9	3	33.3-percent	5	55.6-percent	8	88.9-percent
Law Enforcement	17	4	23.5-percent	8	47.1-percent	12	70.6-percent
Municipal Solid Waste	21	13	61.9-percent	3	14.3-percent	16	76.2-percent
Nuclear Power Plant	0	0	0.0-percent	0	0.0-percent	0	0.0-percent
Storage Tank Farm	3	0	0.0-percent	0	0.0-percent	0	0.0-percent
Total for Middlesex	**126**	**54**	**42.9-percent**	**44**	**34.9-percent**	**98**	**77.8-percent**

New Haven							
Correctional Institutions	5	0	0.0-percent	0	0.0-percent	0	0.0-percent
EMS	76	13	17.1-percent	18	23.7-percent	31	40.8-percent
Fire Stations	115	17	14.8-percent	37	32.2-percent	54	47.0-percent
Gas Station with Generator	23	4	17.4-percent	10	43.5-percent	14	60.9-percent
Health Departments	26	3	11.5-percent	4	15.4-percent	7	26.9-percent
Law Enforcement	42	5	11.9-percent	10	23.8-percent	15	35.7-percent
Municipal Solid Waste	45	16	35.6-percent	7	15.6-percent	23	51.1-percent
Nuclear Power Plant	0	0	0.0-percent	0	0.0-percent	0	0.0-percent
Storage Tank Farm	10	0	0.0-percent	0	0.0-percent	0	0.0-percent
Total for New Haven	**342**	**58**	**17.0-percent**	**86**	**25.1-percent**	**144**	**42.1-percent**
New London							
Correctional Institutions	1	0	0.0-percent	0	0.0-percent	0	0.0-percent
EMS	77	24	31.2-percent	24	31.2-percent	48	62.3-percent
Fire Stations	68	20	29.4-percent	19	27.9-percent	39	57.4-percent
Gas Station with Generator	7	4	57.1-percent	3	42.9-percent	7	100.0-percent
Health Departments	14	3	21.4-percent	5	35.7-percent	8	57.1-percent
Law Enforcement	33	12	36.4-percent	6	18.2-percent	18	54.5-percent
Municipal Solid Waste	39	26	66.7-percent	5	12.8-percent	31	79.5-percent
Nuclear Power Plant	1	0	0.0-percent	0	0.0-percent	0	0.0-percent
Storage Tank Farm	2	0	0.0-percent	0	0.0-percent	0	0.0-percent
Total for New London	**242**	**89**	**36.8-percent**	**62**	**25.6-percent**	**151**	**62.4-percent**
Tolland							

Correctional Institutions	3	1	33.3-percent	0	0.0-percent	1	33.3-percent
EMS	35	22	62.9-percent	8	22.9-percent	30	85.7-percent
Fire Stations	37	24	64.9-percent	7	18.9-percent	31	83.8-percent
Gas Station with Generator	2	1	50.0-percent	0	0.0-percent	1	50.0-percent
Health Departments	4	1	25.0-percent	1	25.0-percent	2	50.0-percent
Law Enforcement	11	4	36.4-percent	3	27.3-percent	7	63.6-percent
Municipal Solid Waste	22	10	45.5-percent	4	18.2-percent	14	63.6-percent
Nuclear Power Plant	0	0	0.0-percent	0	0.0-percent	0	0.0-percent
Storage Tank Farm	0	0	0.0-percent	0	0.0-percent	0	0.0-percent
Total for Tolland	**114**	**63**	**55.3-percent**	**23**	**20.2-percent**	**86**	**75.4-percent**
Windham							
Correctional Institutions	1	0	0.0-percent	1	100.0-percent	1	100.0-percent
EMS	43	29	67.4-percent	12	27.9-percent	41	95.3-percent
Fire Stations	40	28	70.0-percent	10	25.0-percent	38	95.0-percent
Gas Station with Generator	2	0	0.0-percent	2	100.0-percent	2	100.0-percent
Health Departments	3	0	0.0-percent	2	66.7-percent	2	66.7-percent
Law Enforcement	12	3	25.0-percent	8	66.7-percent	11	91.7-percent
Municipal Solid Waste	17	7	41.2-percent	3	17.6-percent	10	58.8-percent
Nuclear Power Plant	0	0	0.0-percent	0	0.0-percent	0	0.0-percent
Storage Tank Farm	0	0	0.0-percent	0	0.0-percent	0	0.0-percent
Total for Windham	**118**	**67**	**56.8-percent**	**38**	**32.2-percent**	**105**	**89.0-percent**
Total for State	**1846**	**527**	**28.5-percent**	**459**	**24.9-percent**	**986**	**53.4-percent**

Most roads and railroads would not be damaged except in the worst-case wildfire scenarios. Fires can create conditions that block or prevent access and can isolate residents and emergency service providers. Power lines are the most at risk to wildfire because most poles are made of wood and susceptible to burning. In the event of a wildfire, pipelines that provide a source of fuel could be ignited, leading to a catastrophic explosion. The wildfire hazard typically does not have a major direct impact on bridges, but it can create conditions in which bridges are obstructed or weakened.

2.28.2 Assessment of Local Vulnerability and Potential Losses

In addition to threatening life and safety and destroying buildings and critical facilities, wildfire events can have major economic impacts on a community from the initial loss of structures and the subsequent loss of revenue from destroyed business and decrease in tourism. Wildfires can cost thousands of taxpayer dollars to suppress and control and involve hundreds of operating hours on fire apparatus and thousands of volunteer man hours from the volunteer firefighters. There are also many direct and indirect costs to local businesses that excuse volunteers from working to fight these fires.

To estimate potential losses by jurisdiction, the exposure analysis methodology was used. Table 2-105 provides a breakdown by county of the numbers of people intersecting wildland fire hazard areas. This analysis was conducted by intersecting the 2010 U.S. census blocks with wildland fire hazard data using GIS. In instances where only a portion of the census block intersected the hazard area, only that same portion of the population is counted. For example, if 20-percent of the census block intersects with an intermix area, only 20-percent of the population number for that census block group is counted). This results in estimated values and there is potential for error with this methodology, but this is considered a more refined approach than assuming 100-percent of the population is contained within the 20-percent of the census block that intersects the hazard area. The total population at risk is estimated at 1,863,092, which is 52.1-percent of the total population of the state.

Table 2-105: Population Intersecting Wildland Fire Hazard Areas.

County	Total Population	Population Intersecting Intermix	Population Intersecting Interface	Total Population At Risk
Fairfield	916,829	183,134	142,857	325,991
Hartford	894,014	115,711	223,247	338,958
Litchfield	189,927	94,072	83,097	177,169
Middlesex	165,676	70,408	56,757	127,165
New Haven	862,477	150,753	298,970	449,723
New London	274,055	112,737	97,903	210,640
Tolland	152,691	78,472	42,034	120,506
Windham	118,428	61,190	51,750	112,940
Total	3,574,097	866,478	996,614	1,863,092

2.28.3 Changes in Development

An understanding of population and development trends can assist in planning for future development and ensuring that appropriate mitigation, planning, and preparedness measures are in place. The State considered the following factors to examine previous and potential conditions that may affect hazard vulnerability:

- Potential or projected development
- Projected changes in population
- Other identified conditions as relevant and appropriate

Ass discussed above in Section 1.28.2, Connecticut is one of the most heavily forested states in the nation and ranks among the most densely populated, and in turn, among the highest in terms of-percentage of land considered in WUI areas. Most of the wildland-urban interface areas in the State are categorized as intermix areas. If not adequately planned, any new development and increases in population may be vulnerable to these events. As discussed in Section 1.2.4 (Land Use and Development), Fairfield County and Hartford County continue to see the majority of development. As of 2016, approximately 65.7% of the building permits statewide were in Fairfield and Hartford Counties, and both of these counties accounted for nearly half of all the housing units in the State. If recent trends in development continue, these two Counties can increase their vulnerability to wildfire. While the data displayed in Figure 2-65 shows Litchfield County has the greatest intermix area in the State, Fairfield County has the greatest area of high and medium density intermix; it is possible that many new developments and increases in population within Fairfield County will be located in these areas. Statewide, there is an estimated 2.2% change in population expected between 2020 and 2040; the increases in population will increase the State population's vulnerability to wildfire if populations move into the wildland-urban interface hazard areas.

2.28.4 Hazard Ranking

Quantitative risk assessment, to the degree possible, has been completed for wildland fire using the methodology described in the Hazard Analysis and Ranking methodology Section 2.6 of this chapter. Scores for each jurisdiction were calculated based on population, building permits, geographic extent, average score from local plan rankings, average hazard concern, and measures of historical impact including injuries and deaths, property damage, and the number of reported events. The number of critical facilities in the WUI was also incorporated, and ranked based on the number of facilities impacted in relation to the number of total critical facilities in Connecticut. As shown in Table 2-106, the composite wildland hazard rank shows Hartford County as low risk, and all other counties as medium-low risk.

Table 2-106: Hazard Ranking by County for Wildland Fire

County	Hazard Concern Rank	Local Plans Hazard Rank	Geographic Extent Rank	Population Density Rank	Building Permits Rank	Facility Intersect Rank	Ann. Events Rank	Ann. Losses Rank	Injury & Death Rank	Composite Ranks
Fairfield	Medium-Low	Low	Medium-High	High	High	Medium	Low	Low	Low	**Medium-Low**
Hartford	Medium-Low	Low	Medium	High	High	Low	Low	Low	Low	**Low**
Litchfield	Medium-Low	Low	Medium-High	Low	Low	High	Low	Low	Low	**Medium-Low**
Middlesex	Medium-Low	Low	High	Medium-Low	Medium-Low	High	Low	Low	Low	**Medium-Low**
New Haven	Medium-Low	Low	Medium-High	High	Medium	Medium	Low	Low	Low	**Medium-Low**
New London	Medium-Low	Low	Medium-High	Medium-Low	Medium-Low	Medium-High	Low	Low	Low	**Medium-Low**
Tolland	Medium-Low	Low	High	Medium-Low	Medium-Low	Medium-High	Low	Low	Low	**Medium-Low**
Windham	Medium-Low	Low	High	Medium-Low	Low	High	Low	Low	Low	**Medium-Low**

2.29 Hazard Rankings Summary

For the State of Connecticut, the hazards discussed in this chapter were ranked on a scale from High (5), Medium-High (4), Medium (3), Medium-Low (2), and Low (1) based on a number of factors. To summarize the overall risk from natural hazards for each county, the individual hazard-specific rankings were combined. For each individual hazard, the rank score for each parameter (described in detail in Section 2.7) was multiplied by its weight. These rankings were then averaged across counties and hazard to provide the composite data presented below. As a note, the high to low comparison only ranks these hazards comparatively for Connecticut. That does not mean that a low or medium-low hazard will not occur or does not have some impact on the community. It does provide an overview of what hazards may pose the greatest risk to Connecticut. This document should serve as a guide to help planners and officials in managing risk and prioritize mitigation actions.

Figure 2-67 shows the overall hazard ranking for each county in Connecticut. Fairfield, New Haven, and Hartford Counties have a high hazard risk. Litchfield County has a medium-high risk; Middlesex, New London, and Tolland Counties have a medium risk, and Windham County has a medium-low risk.

Table 2-107 provides more detail on the individual hazard rankings for each county. Across all counties, winter weather and thunderstorms are notably higher risk hazards, with tornado, flood, and tropical cyclone having a slightly lower, but still significant risk. Dam failure and wildland fire have particularly low risk across all counties.

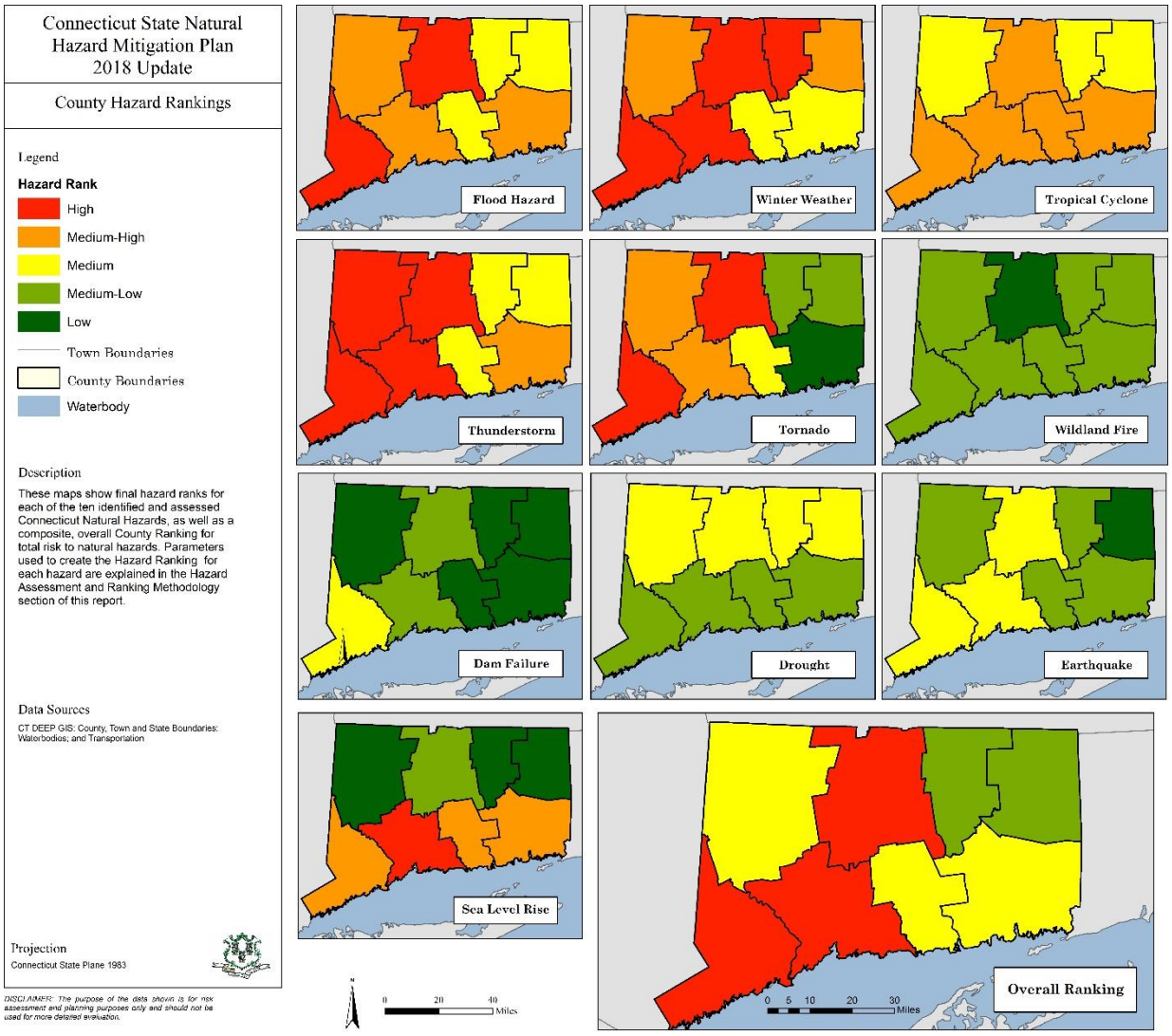

Figure 2-67: Composite County Hazard Ranking

Table 2-107: Hazard Ranking by County for all Hazards

County	Dam Failure Hazard Ranking	Drought Hazard Ranking	Earthquake Hazard Ranking	Flood Hazard Ranking	Sea Level Rise Hazard Ranking	Thunderstorm Hazard Ranking	Tornado Hazard Ranking	Tropical Cyclone Hazard Ranking	Wildland Fire Hazard Ranking	Winter Weather Hazard Ranking
Fairfield	Medium	Medium-Low	Medium	High	Medium-High	High	High	Medium-High	Medium-Low	High
Hartford	Medium-Low	Medium	Medium	High	Medium-Low	High	High	Medium-High	Low	High
Litchfield	Low	Medium	Medium-Low	Medium-High	Low	High	Medium-High	Medium	Medium-Low	Medium-High
Middlesex	Low	Medium-Low	Medium-Low	Medium	Medium-High	Medium	Medium	Medium-High	Medium-Low	Medium
New Haven	Medium-Low	Medium-Low	Medium	Medium-High	High	High	Medium-High	Medium-High	Medium-Low	High
New London	Low	Medium-Low	Medium-Low	Medium-High	Medium-High	Medium-High	Low	Medium-High	Medium-Low	Medium
Tolland	Low	Medium	Medium-Low	Medium	Low	Medium	Medium-Low	Medium	Medium-Low	High
Windham	Low	Medium	Low	Medium	Low	Medium	Medium-Low	Medium	Medium-Low	Medium-High

3 Capability Assessment

This chapter outlines State and local natural hazard mitigation policies, programs, and capabilities. In particular, the roles and responsibilities are described for the various agencies, departments, and offices that participated in the NHMP planning process.

Several significant changes occurred over the three years prior to development of the 2014 edition of this plan with regard to the State's capabilities analysis. Many of these changes were related to the re-organization of state agencies that either directly or indirectly addressed natural hazards, such as the formation of the Department of Energy and Environmental Protection (DEEP) and the merging of DEMHS into DESPP. In contrast, State Agency changes have not occurred since 2014. Rather, the focus of State Agencies has been to further develop their programs as related to hazard mitigation, which has included some internal changes in divisions. Furthermore, the Connecticut Institute for Resilience and Climate Adaptation (CIRCA) was formed as a partnership between DEEP and UConn. CIRCA is described in more detail below in Section 3.2.

Other changes to State capabilities that were described in the 2014 edition of this plan included the following state-level committees and task forces (described in Section 3.2.3), some of which are either inactive at the present time or have ceded their interests to other agencies:

- The Adaptation Subcommittee of the Governor's Steering Committee on Climate Change (formed in 2008);
- The Governor's Two Storm Panel (formed in 2011);
- The Connecticut GIS Council's Storm Response and Recovery Assessment Group (formed in 2011);
- The Shoreline Preservation Task Force (formed in 2012);
- The State's Long-Term Recovery Committee (formed in 2012); and
- The State Vegetation Management Task Force (formed in 2012).

Aside from internal state agency changes and the formation of CIRCA, a number of other changes in capabilities have been underway such as Risk MAP progress, updates to the State Building Code, updates to the State Conservation and Development Policies Plan, and development of the State Water Plan. Although they do not represent new capabilities, this section of the plan describes the planning and technical assistance services provided by DCS Technical Services, the University of Connecticut, The Nature Conservancy, and other organizations that work with Connecticut's community leaders and officials.

Local capabilities are largely the same as they were in 2014. However, with the recognition that local communities have a significant role in disaster preparedness and implementation of hazard mitigation measures, this update to the plan provides more detail about these local capabilities.

The following sub-sections describe federal, state, intra-state regional, local (municipal), and non-governmental capabilities, in that sequence.

3.1 Federal Agencies and Programs for Disaster Response and Recovery, and Related Executive Orders

This section describes the roles, executive orders and programs of the primary federal agencies that assist the State of Connecticut by providing funding for natural hazard mitigation and disaster response. This chapter does not serve as a grant administrative plan[207], however the general grant administrative procedures for some grants (e.g., FEMA) are included in this chapter. The following descriptions of the grant programs and general administrative practices are not intended to dictate state policy or decision-making procedures or outcomes.

In general the potential financial support sources listed in this chapter have not changed from the 2014 Plan. Hazard mitigation assistance grant programs remain under one umbrella grant program and process, called the Hazard Mitigation Assistance Program (HMA).

3.1.1 Federal Executive Orders

The following Federal Executive Orders apply to DEEP projects that relate to natural hazard mitigation:

- Executive Order 11988 – Floodplain Management – This Executive Order requires Federal agencies to evaluate the potential effects of any Federal action that may affect floodplains and to eliminate or reduce any negative effects of that action.
- PL-566, Section 205 – This Public Law authorizes the USDA, NRCS and the USACE to undertake flood and erosion control projects in cooperation with the DEEP.
- Executive Order 11990 – Protection of Wetlands.
- Executive Order 13632 - Establishing the Hurricane Sandy Rebuilding Task Force
- Executive Order 13653 - Preparing the United States for the Impacts of Climate Change
- Executive Order 13690 - Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input. On August 15, 2017, President Trump repealed Executive Order 13690, the Federal Flood Risk Management Standard (FFRMS). The repeal is part of Trump's efforts to eliminate and streamline permitting regulations for infrastructure projects.

[207] DEMHS revised the former State Grant Administration Plan and developed it as a stand-alone state procedures plan for the HMGP, entitled *2008 HMGP Administration Plan.* A copy of the HMGP Administration Plan is located in Appendix 3-1 of this Plan.

- Executive Order 13717 - Establishing a Federal Earthquake Risk Management Standard – Requires proactive steps to enhance the resilience of buildings to earthquakes that are owned, leased, financed, or regulated by the Federal Government.

- Executive Order 13728 - Wildland-Urban Interface Federal Risk Mitigation - Section 2 (f) requires agencies assisting in the financing of any buildings above 5,000 gross square feet within the wildland-urban interface at moderate or greater wildfire risk to consider updating its procedures for providing the assistance to ensure appropriate consideration of wildfire-resistant design and construction.

- Executive Order 13744 - Coordinating Efforts To Prepare the Nation for Space Weather Events – Requires a Federal plan to predict, protect against, and recover from extreme space weather events to minimize the extent of economic loss and human hardship.

3.1.2 Federal Emergency Management Agency (FEMA)

In March 2003, FEMA became a part of the newly established U.S. Department of Homeland Security under the Emergency Preparedness and Response Directorate.

FEMA sponsors the major flood related programs through the Federal Insurance Administration, the National Preparedness Programs Directorate, and the State and Local Programs Directorate. FEMA also provides disaster assistance under Section 404 of the Robert T. Stafford Disaster Assistance and Recovery Act and the Flood Mitigation Assistance Act, Part 78.

FEMA Enabling Legislation

FEMA regulations are mandated under the Code of Federal Regulations (CFR), Title 44 Part 14. CFR Title 44, Part 13 entitled Uniform Administrative Requirements of Grants and Cooperative Agreements to State and Local Governments authorized the original FMA Regulations and the eventual HMA umbrella program. Executive Orders 12612 (Federalism), 11990 (Protection of Wetlands), and 11988 (Floodplain Management) have further requirements to be followed by FEMA.

The NFIP is mandated under the CFR Title 44 Sections 59 - 80 inclusive. FEMA Law - Title V, the National Flood Insurance Reform Act of 1994, Subtitles D, E, and F also apply.

Robert T. Stafford Disaster Relief and Emergency Assistance Act

On November 23, 1988, President Reagan signed the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 USC 5121 et seq.) into law. The Stafford Act provides disaster assistance to states and municipalities after major disasters through the Hazard Mitigation Grant Program (HMGP) and through individual assistance and public assistance aid programs. A major disaster is defined as a natural disaster that causes damage equal to or greater than $1.00 per capita in a state. Based on current population information, this Act would normally be initiated for Connecticut after a disaster that

caused greater than $3.2 million in damages statewide. If several states are affected by the same disaster, the $1.00 per capita standard may be waived.

FEMA Disaster Preparedness Programs

The National Flood Insurance Program (NFIP)

The U.S. Congress established the NFIP on August 1, 1968, with the passage of the National Flood Insurance Act of 1968. The NFIP is a Federal program administered by FEMA enabling property owners in participating communities to purchase insurance protection against losses from flooding. This insurance is designed to provide an alternative to disaster assistance to meet the escalating costs of repairing damage to buildings and their contents caused by floods.

The State of Connecticut and all of its communities participate in the NFIP. Connecticut's NFIP coordinator is located within DEEP's Land and Water Resources Division. FEMA prepares Flood Insurance Rate Maps (FIRM) which identify Special Flood Hazard Areas (SFHA), high risk areas defined as any land that would be inundated by a flood having a 1-percent chance of occurring in any given year. Participation in the NFIP is based on an agreement between local communities and the Federal government that states if a community adopts and enforces a floodplain management ordinance to reduce future flood risks to new construction in SFHAs, the Federal Government will make flood insurance available within the community as a financial protection against flood losses.

A major effort of FEMA is the continued implementation of the NFIP. This is accomplished by:

- Requiring the first floor of buildings to be elevated above the base flood elevation;
- Discouraging development in Coastal Barriers Resource Act (COBRA) areas;
- Conducting detailed engineering studies of most watercourses;
- Delineating floodways and floodway fringes showing flood conveyance and storage areas;
- Requiring communities to adopt floodplain management regulations;
- Subsidizing insurance for structures already in flood risk areas;
- Requiring insurance at actuarial rates for new structures proposed for flood risk areas;
- Joining the availability of disaster relief programs, federal grants and loans and federally backed mortgages to a community's willingness to participate in the program; and
- Requiring lending institutions to notify the purchaser or lessee of special flood hazard in advance of the signing of purchase or lease agreements.

The NFIP Community Rating System (CRS) was implemented in 1990 as a voluntary program for recognizing and encouraging community floodplain management activities exceeding the minimum NFIP standards. Above-and-beyond management is rewarded with discounted insurance premium rates within that community. In 2013, the CRS Coordinator's Manual was updated to reflect changing demographics and other built conditions, as well as current understanding of the effects of climate change.

The Biggert-Waters Flood Insurance Reform Act of 2012 was meant to gradually phasing out subsidized and grandfathered rates for Pre-FIRM properties and properties mapped in the floodplain with the goal of making the NFIP more self-sufficient through the use of actuarial insurance rates for all properties. When the 2014 edition of this plan was approved, the Act was still in effect as passed.

The Consolidated Appropriations Act of 2014 prohibited the implementation of Section 207 of the Biggert-Waters Act, which ensured properties' flood insurance rates reflect their full risk after a mapping change or update occurs. The 2014 Act stopped rate increases while new law was being developed to address rate concerns. This did not affect any other provision of Biggert-Waters, meaning FEMA is still prohibited from offering subsidized rates to Pre-FIRM properties purchased after Biggert-Waters was enacted, properties not insured when Biggert-Waters was enacted, and properties that experienced a lapse in coverage. Additionally, FEMA will continue to phase-out subsidized rates for Pre-FIRM non-primary residences, businesses, and properties with severe or repeated flooding.[208]

The Homeowner Flood Insurance Affordability Act of 2014 repealed certain parts of the Biggert-Waters Act, restoring grandfathering, putting limits of certain rate increases and updating the approach to ensuring the fiscal soundness of the fun by applying an annual surcharge to all policyholders.[209]

On November 17, 2017, the House passed HR 2874, the 21st Century Flood Reform Act, to revamp the NFIP and authorize the program for five more years.

Civil Preparedness Activities

These activities are funded in part by FEMA, and are described elsewhere in this chapter under the description for the Division of Emergency Management and Homeland Security (DEMHS).

FEMA Natural Hazard Mitigation Programs

FEMA administers the following major natural hazard mitigation programs:

- Hazard Mitigation Grant Program (HMGP);
- Pre-Disaster Mitigation (PDM); and

[208] https://www.fema.gov/media-library-data/1392062928758-80537fe9ad63607837d8a29f04280492/BW12_consolidated_app_2014.pdf
[209] https://www.fema.gov/media-library-data/1396551935597-4048b68f6d695a6eb6e6e7118d3ce464/HFIAA_Overview_FINAL_03282014.pdf

- Flood Mitigation Assistance (FMA).

The Biggert Waters Flood Insurance Reform Act of 2012 eliminated the RFC program, and the former SRL grant is covered under FMA.

The first three programs are administered under the Hazard Mitigation Assistance (HMA) umbrella program. Each program is similar in its funding formula (75% federal / 25% State or Local) except FMA, which may have a 90% federal and 10% state or local cost share for SRL properties. However, each program has different eligibility criteria and timelines for project completion. Each program also requires that all projects be cost-effective (i.e., at least one dollar of benefit must result from each dollar of cost). This is accomplished through the utilization of FEMA's Benefit-Cost Analysis (BCA) software.

The Hazard Mitigation Assistance Program

HMA was created by FEMA to unify the application process of three of its current (HMGP< PDM, and FMA) and two of its former hazard mitigation grant programs (RFC, and SRL). As stated in the HMA Guidance document, "these programs provide significant opportunities to reduce or eliminate potential losses to State, Tribal, and local assets through hazard mitigation planning and project grant funding. Each HMA program was authorized by separate legislative action, and as such, each program differs slightly in scope and intent". Table 3-1 summarizes the three hazard mitigation grant programs.

Potential projects under each program are shown in Table 3-2, as published in the February 27, 2015 HMA Guidance Document.

Table 3-1: FEMA Grant Programs Available Under the Unified HMA Program.

FEATURE / PROGRAM	HAZARD MITAGATION GRANT PROGRAM	FLOOD MITIGATION ASSISTANCE	PRE-DISASTER MITIGATION
AUTHORIZATION	Section 404 of the Stafford Act Only available after a Presidentially Declared Disaster	44 Code of Federal Regulations Part 78	Disaster Mitigation Act of 2000
QUALIFYING CRITERIA	Must be a project that mitigates damages from a current disaster or past disaster within Connecticut.	Must be a project that mitigates damages from flooding to insurable repetitive loss structures,	Full range of Natural Disaster Hazard in Connecticut, however, flood mitigation is preferred.
APPROVALS	State approval based on recommendations from the CIHMC. Federal approval from FEMA	State approval based on recommendations from the CIHMC. Federal approval from FEMA	State approval based on recommendations from the CIHMC. Federal approval from FEMA
FUNDING LIMITS	Tiered percentages based on estimated aggregate amounts of disaster assistance	$20,000 for plans $20,000 for technical assistance $300,000 for projects	$4 million for mitigation projects $400,000 for new plans $300,000 for plan updates
TIME LIMITS	3 Years for construction 3 Years for plans	3 Years for construction 3 Years for plans	3 Years for construction 3 Years for plans

Table 3-2: Eligible Activities by Program

Eligible Activities	HMGP	PDM	FMA
1. Mitigation Projects	✓	✓	✓
Property Acquisition and Structure Demolition	✓	✓	✓
Property Acquisition and Structure Relocation	✓	✓	✓
Structure Elevation	✓	✓	✓
Mitigation Reconstruction	✓	✓	✓
Dry Floodproofing of Historic Residential Structures	✓	✓	✓
Dry Floodproofing of Non-residential Structures	✓	✓	✓
Generators	✓	✓	
Localized Flood Risk Reduction Projects	✓	✓	✓
Non-localized Flood Risk Reduction Projects	✓	✓	
Structural Retrofitting of Existing Buildings	✓	✓	✓
Non-structural Retrofitting of Existing Buildings and Facilities	✓	✓	✓
Safe Room Construction	✓	✓	
Wind Retrofit for One- and Two-Family Residences	✓	✓	
Infrastructure Retrofit	✓	✓	✓
Soil Stabilization	✓	✓	✓
Wildfire Mitigation	✓	✓	
Post-Disaster Code Enforcement	✓		
Advance Assistance	✓		
5 Percent Initiative Projects	✓		
Miscellaneous/Other[1]	✓	✓	✓
2. Hazard Mitigation Planning	✓	✓	✓
Planning Related Activities	✓		
3. Technical Assistance			✓
4. Management Cost	✓	✓	✓

Source: Table 3 – HMA Unified Guidance document, 2015

The following subsections will provide a more detailed description of each of the grant programs which have been placed under this umbrella grant program for application process efficiency. In Connecticut, DEMHS administers these grants.

The Hazard Mitigation Grant Program (HMGP)

Section 404 of the Stafford Act created the HMGP, which provides federal grants to states and municipalities for post-disaster natural hazard mitigation. HMGP funding is allocated to a state by the use of a sliding scale calculation. The total grant funding from HMGP

cannot exceed 15% (for a state with a FEMA approved Standard Natural Hazard Mitigation Plan) or 20% (for a state with a FEMA approved Enhanced Natural Hazard Mitigation Plan) of the total disaster damages for the first $2 billion. After the total aggregate amount of $2 billion in damages the amount of funding for subsequent aggregate damages is decreased according to FEMA's formula. This FEMA formula calculates the next portion of aggregate damages between $2 billion and $10 billion by 10%, and for the next portion of aggregate damages between $10 billion and $35.333 billion, funding is calculated at 7.5%. The monies from this federal grant are given to Connecticut to support local mitigation projects, with a cost share ratio of 75% federal and 25% local match. [210]

The HMGP is active only after a presidentially declared disaster. The HMGP grant provides communities with up to 75% of the total cost of projects that reduce or prevent further damage from natural disasters. Projects may include, but are not limited to: acquisition, relocation, elevation or demolition of flood prone structures, construction of small scale flood control projects such as levees and small dams, retrofitting of structures to withstand wind and seismic forces and the drafting of plans that lead directly to the implementation of mitigation measures. Municipalities are not able to receive funding under the HMGP without an approved local hazard mitigation plan.

Pre-Disaster Mitigation Program (PDM)

The disaster experiences of the 1990s demanded that federal, state and local emergency managers reassess their approach to disaster response and recovery. It became apparent that the nation needed to shift its approach from a disaster-response driven system to a system based on pre-disaster or ongoing risk analysis so that the nation as a whole could become proactive rather than reactive to hazard events. This acknowledgement caused FEMA to re-evaluate its national strategy, resources and priorities. As a result of this evaluation, a unit for Natural Hazard Mitigation Planning was established in 1998 within FEMA to provide guidance and resources to states and local communities to promote and support the mitigation planning process. FEMA and the State of Connecticut place great value on the planning process as an approach to mitigation that must be promoted and supported in order to build sustainable, disaster resilient communities.

On October 20, 2000, Congress passed the Disaster Mitigation Act of 2000 (DMA 2000) (Public Law 106-390). This was the first major amendment to the Robert T. Stafford Disaster Relief and Emergency Assistance Act since that law was initially passed in 1988. Through DMA 2000, Congress approved the creation of a new mitigation grant program, PDM, to provide a mitigation funding mechanism that is not dependent on a presidential disaster declaration and could fund both natural hazard mitigation construction projects and natural hazard mitigation planning initiatives. PDM funding has changed since its inception. In the program's initial years, a base allocation of funding was granted to each state and additional funds were provided using a population formula. Recently, FEMA has changed the program to a nationally competitive grant program where projects from all states compete against each other with FEMA choosing the winning projects that will receive funding. Eligible PDM projects include: state and local natural hazard mitigation

[210] Information derived from FEMA Hazard Mitigation Grant Program website: www.fema.gov/hazard-mitigation-grant-program

planning, mitigation projects, and community outreach and education. The PDM grant is a 75% federal 25% local cost-share grant (e.g., cash, in-kind services, etc.).

For fiscal years 2002-2007, a main focus of the PDM program was on the development of local or regional natural hazard mitigation plans to help meet the new local natural hazard mitigation planning requirements of DMA 2000. Communities applying for any FEMA mitigation grant to conduct mitigation projects (e.g. home elevations, acquisitions) must have an adopted local natural hazard mitigation plan in place prior to receiving funds.

Flood Mitigation Assistance (FMA)

In 1994 the United States Congress established FMA to assist state and local governments in funding cost-effective actions that reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other insurable structures. The long-term goal of FMA is to reduce or eliminate claims under the NFIP through the use of mitigation activities with a specific focus on repetitive loss properties. Repetitive loss properties are those properties that suffer at least 2 claims of more than $1,000 each for flood damage in a 10-year period.

The FMA program provides cost-share grants for three purposes: 1) planning grants to states and communities to assess the flood risk and identify actions to reduce that risk; 2) project grants to execute measures to reduce flood losses; and 3) technical assistance grants that states may use to fund staff salary and program expenses in order to administer the FMA program.

The Biggert-Waters Flood Insurance Reform Act of 2012 eliminated the RFC and SRL programs and made the following changes to the FMA program:

- The definitions of repetitive loss and severe repetitive loss properties have been modified.
- Cost-share requirements have changed to allow more federal funds for properties with repetitive flood claims and SRL properties.
- There is no longer a limit on in-kind contributions for the nonfederal cost share.

The Emergency Management Performance Grant Program (EMPG)

The purpose of the EMPG Program is to make grants to States to assist State, local, territorial, and tribal governments in preparing for all hazards, as authorized by the *Robert T. Stafford Disaster Relief and Emergency Assistance Act* (42 U.S.C. 5121 et seq.). Title VI of the *Stafford Act* authorizes FEMA to make grants for the purpose of providing a system of emergency preparedness for the protection of life and property in the United States from hazards and to vest responsibility for emergency preparedness jointly in the Federal Government, States, and their political subdivisions. The Federal Government, through the EMPG Program, provides necessary direction, coordination, and guidance, and provides necessary assistance, as authorized in this title so that a comprehensive emergency preparedness system exists at all levels for all hazards.

The EMPG supports core capabilities across the five mission areas of Prevention, Protection, Mitigation, Response, and Recovery based on allowable costs. Either the State

Administering Agency (SAA) or the State's EMA are eligible to apply directly to FEMA for EMPG Program funds on behalf of State and local emergency management agencies, however only one application will be accepted from each State or territory. In Connecticut, the EMPG is administered by DEMHS.

3.1.3 Natural Resources Conservation Service

The United States Department of Agriculture's (USDA) NRCS provides significant technical and engineering assistance to the DEEP, DEMHS, and other state agencies in the planning and implementation of activities. Most projects are conducted under Public Law (PL)-566, the Small Watershed Program Authorization and are related with soil erosion and flooding. A member of the NRCS is also appointed to the CIHMC (as discussed later).

NRCS projects are conducted under federal PL-566 and CGS Sections 22a-318 through 324 and provide the framework for state cooperation with the NRCS when utilizing the Watershed Protection and Flood Prevention Act, PL 83-566 Section 6, Statute 666 for planning and implementation of flood damage reduction projects on a watershed basis.

NRCS Water Resources Programs

The Watershed Protection and Flood Prevention Act, P.A. 83-566, CGS 22a-318 through 22a-323, authorizes the Secretary of Agriculture to "cooperate with states and local agencies in the planning and carrying out of works of improvement for soil conservation and other purposes." It provides for technical and financial assistance by the department through the NRCS to local organizations representing persons living in small watersheds (less than 250,000 acres). The Act provides for a project-type approach to solving land, water, and related resource problems. Flood prevention is an eligible purpose for which NRCS can pay 100% of the costs for planning studies, design and construction of structural solutions. The local sponsoring organization is solely responsible for land rights, operation and maintenance. Often these costs are equal to 1/2 the total costs of the project. For on-site measures such as flood proofing, the costs for implementation are divided 75% federal and 25% non-federal.

Federal Level Recommendation 3 of "A Unified National Program for Floodplain Management" and Section 6 of PL 83-566 provide the authorization to NRCS for Floodplain Management and Cooperative USDA River Basin studies.

Floodplain Management Studies (FPMS) authorized in Section 6 of PL-566 are a means of NRCS assisting state agencies and communities in the development, revision, and implementation of their floodplain management programs.

A FPMS can identify site-specific flood problem areas (or potential problem areas), inventories natural values, incorporates public participation, studies the community's management alternatives, and provides for study follow-up assistance. A FPMS may serve as the source of technical data for the community to implement local floodplain management programs.

Emergency Watershed Protection (EWP)

The Emergency Watershed Protection Program (EWP) is administered by the NRCS under Section 216, PL 81-516 and Section 403 of Title IV of the Agricultural Credit Act of 1978, PL 95-334. The EWP program provides the State and local units of government with technical and financial assistance to plan, design and implement measures that repair watershed impairments resulting from natural disasters. This program's objective is to assist in relieving imminent hazards to life and property from floods and the products of erosion created by natural disasters. Any corrective measure must prevent flooding or soil erosion, and reduce threats to life or property.

Authorized EWP technical and financial assistance may be made available when an emergency exists. Federal funds may bear a percentage of the construction costs of emergency measures in an exigency situation as well as in a non-exigency situation. Sponsors are responsible for obtaining any needed land rights and federal, state, and local permits. The numbers of EWP projects initiated after the most recent natural hazard events in Connecticut include:

- 37 EWP projects after the June 1982 floods;
- 1 EWP project after a thunderstorm in June 1989 in Franklin, Connecticut;
- 1 EWP project after the July 1989 tornadoes in western Connecticut;
- EWP projects after Tropical Storm Floyd;
- 1 EWP project after the April 2005 storm in Danbury;
- 7 EWP projects after the October 2005 storm;
- 4 EWP projects after the April 2007 storm and floods;
- 10 EPW projects after Tropical Storm Irene in 2011; and
- 4 EWP projects after Storm Sandy in 2012.

Watershed and Flood Prevention Operations (WFPO)

The Watershed Protection and Flood Prevention Program helps units of federal, state, local and tribal of government (project sponsors) protect and restore watersheds up to 250,000 acres. This program provides for cooperation between the Federal government and the states and their political subdivisions to work together to prevent erosion, floodwater, and sediment damage; to further the conservation, use, and disposal of water; and to further the proper use of land in authorized watersheds. In October 2017, NRCS announced they will be investing $150 million in 48 new projects.[211]

3.1.4 United States Army Corps of Engineers (USACE)

[211] https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/programs/landscape/wfpo/?cid=nrcs143_008271

The USACE has undertaken several large flood control projects all across New England to reduce flood levels by retaining storm water runoff in upstream impoundments. These projects located in the Connecticut, Housatonic, Naugatuck, and Thames river basins. These structural measures have saved the State millions of dollars in flood damages.

The USACE has provided significant flood assistance to Connecticut and continues to do so. In its role as an assisting federal agency, the USACE has undertaken several flood and erosion control projects within the State since the 1950s.

The USACE has worked in Connecticut to develop several floodplain management studies. These studies include ice jam protection on the Salmon River in Haddam and East Haddam, and a feasibility study of flood protection on the West River in West Haven, Connecticut and New Haven, Connecticut.

Connecticut is able to undertake projects with the USACE as authorized under CGS Section 25-76 entitled "Small Flood Control, Tidal and Hurricane Protection and Navigation Projects; and State Cooperation with Federal and Municipal Governments," and through CGS Section 25-95 entitled "Agreements Concerning Navigation and Flood and Erosion Control."

The USACE, in cooperation with the DEEP and the city of Milford, elevated 36 residential structures under the authority of Section 205 of PL-858 in 2002 and 2003. The total cost of the project was estimated at $3.4 million. The city and State contributed 35% of the cost and the USACE covered the remaining 65% of the construction costs. The project was completed in 2003.

Finally, the USACE works in cooperation with the DEEP by providing technical assistance on flood control and prevention projects, and assistance to the State's flood warning system.

The USACE Building Resilience website contains information on how to improve building conditions to be more resilience to natural disasters.212

3.1.5 United States Department of Agriculture (USDA)

Funding for state and local governments with regard to wildfire mitigation is available from the USDA Forest Service. Grant programs under this federal agency include the following:[213]

Volunteer Fire Assistance - The Volunteer Fire Assistance program provides critical funding and technical assistance directly to local and volunteer fire departments that protect communities with populations under 10,000. Funds improve the ability of rural fire departments to respond to wildfires, especially in the wildland/urban interface. Funding can be used for training and equipment to complement federal firefighting commitments, so

[212] http://www.usace.army.mil/Missions/Sustainability/Building-Resilience/

[213] Source: grant program descriptions excerpted from the USDA Forest Service website: http://www.fs.fed.us/r1/pgr/afterfire/keypoint4/contacts.shtml. This site provides a description of many of the USDA Forest Service grants available and links to other webpages that describe additional grant programs.

protection capabilities can be enhanced across ownerships. Delivery is through consolidated grants to the State Forester, and funds are cost-shared on a 50/50 basis.

State Fire Assistance - The State Fire Assistance program provides technical training, financial assistance, and equipment to states to ensure that state and local firefighting crews can deliver a safe, effective, and coordinated response to wildland fire. Funding is available for preparedness, high priority prevention, and mitigation education programs including FIREWISE. These funds complement readiness levels at the federal level and are available through consolidated grants to State Foresters. Funds are cost-shared on a 50/50 basis.

Community Planning - Funding is available for development and revision of communities' strategic, action, and fire risk management plans. The goal for these funds is to increase community resiliency and capacity while creating an environment for development and growth. Funding will be targeted to communities most impacted by fires. Delivery is through grants awarded directly to communities and to a variety of other partners including state, county, and tribal governments, and not-for-profit corporations identified by the National Forestry Service in conjunction with the State Department of Commerce. Funds are cost shared 80/20.

For a more complete listing of USDA Forest Service grant programs that have been administered in Connecticut since 2010, please see Appendix 3-2. When additional information becomes available, these resources will be added to this section.

USDA Climate Hubs

In an effort to mitigate climate-related risks, USDA has established seven regional hubs for risk adaptation and mitigation to climate change. These Hubs will deliver science-based knowledge and practical information to farmers, ranchers and forest landowners on a regional basis to support decision-making related to changing climate. The Hubs provide technical support for land managers to respond to drought, heat stress, floods, pests, and changes in the growing season, and assessments and regional forecasts for hazard and adaptation planning to provide more time to prepare. They also facilitate outreach and education for farmers, ranchers and forest landowners on ways to mitigate risks and thrive despite change. The Northeast Climate Hub encompasses 12 states, including Connecticut. There is also a Northern Forests Climate Hub, which prepares regional land managers for climate change risks, supporting them to make climate-informed management decisions.[214]

USDA Disaster Resource Center

The USDA Disaster Resource Center provides information about specific disasters and emergencies, how to prepare, recover, and help build long-term resilience, as well as information about USDA assistance during disaster events. Categories of disasters include climate, drought, storms, hurricanes, tornadoes, flooding, and wildland fire.[215]

[214] https://www.climatehubs.oce.usda.gov/
[215] https://www.usda.gov/topics/disaster

Extension Disaster Education Network

The Extension Disaster Education Network (EDEN) is made possible by USDA Cooperative Extension and NOAA Sea Grant Extension programs. The program reaches over 300 delegates in 50 states and 3 US territories. Their Resource Catalog combines research-based publications, websites, webinars, courses and exercises developed by the Network's member institutions, helping increase knowledge-sharing between states. [216]

3.1.6 U.S. Environmental Protection Agency Resilience and Adaptation in New England

Resilience and Adaptation in New England (RAINE) is a database that catalogs actions being taken by New England communities to adapt to climate change. The goal of the site is to share lessons being learned, discover how to better assist municipalities, and promote collaboration. RAINE provides information about actions at the state, regional or local level. It not only includes links to web pages, reports and plans but also examples of presentations that communities use to engage their citizens, what tools they used to identify their vulnerabilities and who funded their projects.[217]

Climate Change Adaptation Resource Center

EPA's Adaptation Resource Center (ARC-X) is an interactive resource to help local governments effectively deliver services to their communities even as the climate changes. Decision makers can create an integrated package of information tailored specifically to their needs. Once users select areas of interest, they will find information about: the risks posed by climate change to the issues of concern; relevant adaptation strategies; case studies illustrating how other communities have successfully adapted to those risks and tools to replicate their successes; and EPA funding opportunities.[218]

Climate Ready Estuaries Program

The Climate Ready Estuaries program works to help the National Estuary Programs (NEPs) and all environmental mangers to address climate change in watersheds and coastal areas. This effort, initiated in 2008, brings together EPA's Oceans and Coastal Protection Programs and Climate Change Programs to build additional capacity in the NEPs and coastal communities as they prepare to adapt to the effects of climate change. The program coordinates and communicates with other federal agencies and external partners that work on coastal adaptation efforts to share information, identify opportunities for collaboration, and minimize duplication of effort.[219]

[216] https://eden.lsu.edu/
[217] https://www.epa.gov/raine
[218] https://www.epa.gov/arc-x
[219] https://www.epa.gov/cre/about-climate-ready-estuaries-program

Drinking Water and Wastewater Resilience

The U.S. EPA provides resources for assessing, planning, and training communities on improving the resilience of their water and wastewater systems. Resources include instructions for conducting risk assessments, assessing financial impacts of a water disruption, developing emergency response plans, building hazard resilience, sharing resources during emergencies, and finding federal funding for utilities. They also provide tools such as the Response On-The-Go Tool, and the Route to Resilience Tool, which guides users through the process of building their own unique Roadmap to Resilience.[220]

Water Infrastructure and Resiliency Finance Center

The Water Infrastructure and Resiliency Finance Center is an information and assistance center, helping communities make informed decisions for drinking water, wastewater, and stormwater infrastructure to protect human health and the environment. The Center's goals focus on research, advising stakeholders, innovation, and building large networks.[221]

Governor's Institute on Community Design

The Governors' Institute on Community Design helps governors and their staff make informed decisions about investments and policy decisions that influence the economic health and physical development of their states. Working with a governor's staff and cabinet, the institute provides tailored technical assistance, typically through one- to two-day workshops that bring together the governor and his or her staff with nationally renowned experts to address issues the governor has identified. This assistance is designed to provide state leaders with practical strategies for creating vibrant, economically competitive communities. Assistance often includes exploring the connections among economic development, transportation, land use, housing, energy, and the environment. The Governors' Institute has helped the governors of Iowa, Vermont, and New Hampshire recover from disaster events and prepare for a more resilient future.[222]

Smart Growth Strategies for Disaster Resilience and Recovery

In 2016, EPA and the Federal Emergency Management Agency (FEMA) updated a Memorandum of Agreement that makes it easier for the two agencies to work together to help communities become safer, healthier, and more resilient. The agencies collaborate to help communities hit by disasters rebuild in ways that protect the environment, create long-term economic prosperity, and enhance neighborhoods. FEMA and EPA also help communities incorporate strategies that improve quality of life and direct development away from vulnerable areas into their hazard mitigation plans. EPA and FEMA are using the lessons they learn from working together under this agreement and with other federal agencies to better coordinate assistance to communities on hazard mitigation planning and

[220] https://www.epa.gov/waterresilience
[221] https://www.epa.gov/waterfinancecenter
[222] https://www.epa.gov/smartgrowth/governors-institute-community-design

post-disaster recovery. The Memorandum of Agreement also helps the agencies work together on climate change adaptation.[223]

Other Resilience and Adaptation Resources

EPA provides a variety of resources for preparing communities for the effects of climate change. These include the Coastal Adaptation Toolkit, Adaptation Planning Workbook, Risk Identification Checklists, Online Tool for Vulnerability Assessments, Sea Level Rise Resources, Adaptation Options for Coastal Areas, King Tides Fact Sheet, and archives of Climate Change Adaptation Projects.[224]

3.1.7 U.S. Department of Housing and Urban Development

The U.S. Department of Housing and Urban Development (HUD)'s Office of Economic Development leads multiple programs that aim to prepare for the impacts of climate change.[225] In the HUD Strategic Plan for 2014 – 2018, Strategic Objective 4C for Disaster Resilience is to "support the recovery of communities from disasters by promoting community resilience, developing state and local capacity, and ensuring a coordinated federal response that reduces risk and produces a more resilient built environment."[226] In support of this objective, the following programs provide support for greater capacity in and utilization of resilient approaches to community development at the local, regional, and state levels.

- Rebuild by Design: Launched in 2013 in response to Hurricane Sandy, Rebuild by Design was a design competition for implementable resilience solutions for impacted areas. Bridgeport, CT was chosen as a winner, and received $10 million for a comprehensive project in the South End of the city.[227]
- National Disaster Resilience Competition: Based on the success of Rebuild by Design, the National Disaster Resilience Competition (NDRC) was a collaboration between HUD and the Rockefeller Foundation that competitively awarded nearly $1 billion in HUD Disaster Recovery funds to eligible communities. Connecticut was one of 13 winners, receiving $54,277,359 to support a pilot program in Bridgeport that is part of the broader Connecticut Connections Coastal Resilience Plan.
- Climate Change Adaptation Plan: HUD created a department-wide Climate Change Adaptation Plan as part of the Obama Administration's objective to ensure preparedness in the face of more extreme weather events and climate-related risks.
- Community Resilience Portal: HUD created the Community Resilience Portal to provide a catalogue of resources that local planners could use to help plan and prepare for changing natural hazards when undertaking HUD-funded activities. HUD's annual programs fund the construction and maintenance of infrastructure and housing in communities across the country. In addition, Congress has appropriated over $45 billion to HUD since 2000 to fund disaster recovery activities.

[223] https://www.epa.gov/smartgrowth/smart-growth-strategies-disaster-resilience-and-recovery
[224] https://www.epa.gov/cre
[225] https://www.hud.gov/program_offices/economic_development/resilience/about
[226] https://www.huduser.gov/portal/publications/pdf/HUD-564.pdf
[227] http://www.rebuildbydesign.org/our-work/all-proposals/winning-projects/ct-resilient-bridgeport

In addition to these programs, HUD prioritizes environmental justice (EJ) in all its initiatives. In 2012, HUD published its first Departmental Environmental Justice Strategy to address EJ concerns and increase access to environmental benefits through HUD programs. In particular, programs related to climate resilience, energy efficiency, and place-based work address environmental justice.

3.1.8 U.S. Climate Resilience Toolkit

The U.S. Climate Resilience Toolkit is a partnership of federal agencies and organizations led by NOAA and initially launched on November 17, 2014. This inter-agency initiative operates under the auspices of the United States Global Change Research Program. The site is managed by NOAA's Climate Program Office and is hosted by NOAA's National Centers for Environmental Information. The Toolkit improves people's ability to understand and manage their climate-related risks and opportunities, and to help them make their communities and businesses more resilient to extreme events. The Toolkit offers information from all across the U.S. federal government in one easy-to-use online location.[228]

3.2 State Hazard Mitigation Programs and Related Laws

Connecticut has many state statutes, regulations, policies and practices that achieve the goal of natural hazard mitigation in areas prone to natural hazards. During the past 100 years, flooding has caused more damage and loss of life than any other natural disaster in the State. Most of the State's programs and policies deal either directly (structural mitigation) or indirectly (non-structural methods through enforcement, education and monitoring) with flooding. These state programs and policies focus on damage prevention within special flood hazard areas (SFHAs) and in some cases the 500-year flood zones (0.2% annual chance flood zones). Since all municipalities within Connecticut contain mapped SFHAs areas within their political boundaries, these programs are implemented on a statewide basis and affect every municipality.

Structural flood mitigation projects in Connecticut have either dealt with the initial causes of flooding (e.g., construction of flood control projects to reduce the frequency of flooding) or the effects of the flooding (e.g., elevating or moving structures out of the floodplain). The DEEP has historically been the lead agency for the pursuance of flood hazard mitigation activities and administration of federal mitigation grants in Connecticut, although this responsibility was transferred to DEMHS in 2013. The two agencies work together to address flooding and flood mitigation.

The distribution of state or federal funding requires full compliance with all regulations. Federal funding for the programs are provided through the smart-link system maintained between FEMA and DEMHS. Transfer invoices are utilized to channel approved funding to the eligible projects. A formal contract is entered into between the applicant and the State to ensure compliance with all applicable regulations.

3.2.1 State of Connecticut Enabling Legislation

[228] https://toolkit.climate.gov/content/about

State participation in the NFIP, Stafford Act, and related actions are authorized under the Connecticut General Statutes Section 25-68b through 25-68h and associated regulations. Other provisions of FEMA grant programs are authorized under Connecticut General Statutes Title 28, Chapter 517, Section 28-9, 28-15a, and 28-15b, Civil Preparedness and Emergency Services. Additional authorization is found in the Federal Aid Connecticut General Statutes, Title 4, Chapter 24, Section 4-28a, Management of State Agencies, State Properties and Funds, Advisory Commission, and Section 25-68b et seq. flood control projects.

State Floodplain Management Act

The Flood Management Act as referenced in the Connecticut General Statutes (CGS) Section 25-68b through Section 25-68h outlines the flood management responsibilities of DEEP and lays out the rules and regulations to be used by all state agencies when undertaking or funding activities within or affecting floodplain areas, which are normally coincident with SFHAs in this context.

CGS Section 25-68b defines the terms (e.g., Floodplain, Base Flood, etc.) used in the Flood Management Act. Section 25-68c goes beyond the regulations contained within the National Flood Insurance Program (NFIP) in many aspects and references the NFIP standards as a minimum standard.

The Commissioner of DEEP has the following powers and duties under Section 25-68c:

- To coordinate, monitor and analyze the floodplain management activities of state and local agencies;
- To coordinate flood control projects within Connecticut and be the sole initiator of a flood control project with a federal agency;
- To act as the primary contact for federal funds for floodplain management activities sponsored by the State;
- To regulate actions by state agencies affecting floodplains except conversion by the University of Connecticut of commercial or office structures to an educational structure;
- To regulate proposed state actions that impact natural or man-made storm drainage facilities located on property that the commissioner determines to be controlled by the state, including, but not limited to, programs that regulate flood flows within a floodplain and site development that increases peak runoff rates;
- To designate a repository for all flood data within the State;
- To assist municipalities and state agencies in the development of comprehensive floodplain management programs;
- To determine the number and location of State-owned structures and uses by the State in the floodplain and to identify measures to make such structures and uses less susceptible to flooding including flood-proofing or relocation;
- To mark or post the floodplains within lands owned, leased or regulated by state agencies in order to delineate past and probable flood heights and to enhance public awareness of flooding;

- To designate the base flood elevation for a critical activity where no such base flood elevation is designated by the NFIP. The Commissioner may add a freeboard factor to any such designation; and
- To require that any flood control project be designated to provide protection equal to or greater than the base flood.

Section 25-68f mandates that if more than one floodplain designation exists for the same area, the most stringent designation shall be used to fulfill the provisions of sections 25-68b to 25-68h, inclusive.

An Act Concerning Floodplain Management and Hazard Mitigation

During the 2004 session, the State legislature passed the Floodplain Management and Hazard Mitigation Act. This legislation covers many aspects of floodplain management. It requires municipalities to revise their current floodplain zoning regulations or ordinances to include new standards for compensatory storage and equal conveyance of floodwater. Municipalities were not required to make such revisions until they revise their regulations for another purpose. The DEEP has developed model regulation language which incorporates these new State requirements and has issued this model floodplain ordinance to communities for their use since 2007.

Other enabling State Legislation related to flood plain management includes:

- Sections 22a-28 through 22a-45, inclusive – Inland Wetlands and Watercourses Act;
- Section 22a-401 through 22a-410, inclusive – Dam Safety;
- Section 13a-94 – Construction Over and Adjacent to Streams;
- Section 25-84 through 25-98 – Flood & Erosion Control Board Statutes;
- Section 22a-318, 22a-321 – NRCS Statutes;
- Section 25-74 through 25-76 – Authorization to perform flood and erosion projects under Federal authority;
- Section 22a-342 through 22a-350 – Stream Channel Encroachment Line Program Statutes; and
- Section 22a-365 through 22a-378 – The Connecticut Water Diversion Policy Act.

Table 3-3 shows each state funded program related to floodplain management and whether it is associated with pre-disaster mitigation or post-disaster mitigation efforts.

Table 3-3: State Funded Programs Related to Floodplain Management

State Funded or Staffed Program in Hazard Prone Area.	Pre or Post Disaster
Flood Management Section 25-68	Pre and Post Disaster
Dam Safety Section 22a-401 – 22a-410	Pre and Post Disaster
Flood and Erosion Control Boards Section 25-84	Pre and Post Disaster
National Flood Insurance Program	Pre-Disaster
Stream Channel Encroachment Line Program Section 22a-342 through 22a-350	Pre-Disaster
Section 22a-318, 22a-321 – NRCS Statutes	Pre and Post Disaster

State Funded or Staffed Program in Hazard Prone Area.	Pre or Post Disaster
Section 25-74 through 25-76 – Authorization to perform flood and erosion projects under Federal authority.	Pre and Post Disaster
Floodplain Management and Mitigation Act	Pre-Disaster
PDM Planning	Pre-Disaster

An Act Concerning the Coastal Management Act and Shoreline Flood and Erosion Control Structures

In 2012 the Connecticut General Assembly passed Public Act 12-101, An Act Concerning the Coastal Management Act and Shoreline Flood and Erosion Control Structures. This legislation combined a number of initiatives to address sea level rise and to revise the regulatory procedures applicable to shoreline protection. Through this Act, the concept of sea level rise was incorporated into the Connecticut Coastal Management Act (CCMA)'s general goals and policies of coastal planning for the very first time. The following goal was added to the CCMA:

> *"To consider in the planning process the potential impact of a rise in sea level, coastal flooding and erosion patterns on coastal development so as to minimize damage to and destruction of life and property and minimize the necessity of public expenditure and shoreline armoring to protect future new development from such hazards" [CGS section 22a-92(a)(5), as amended]*

The Act also allows the Commissioner of the Department of Energy and Environmental Protection to establish a pilot program to encourage "innovative and low-impact approaches to shoreline protection and adaptation to a rise in sea level. Such approaches may include living shorelines techniques utilizing a variety of structural and organic materials, including, but not limited to, tidal wetland plants, submerged aquatic vegetation, coir fiber logs, sand fill and stone to provide shoreline protection and maintain or restore coastal resources and habitat." It is possible that some of these methods will be evaluated in the coming years, helping to build capabilities at the state and municipal levels to increase hazard mitigation.

PA 12-101 also contains a requirement for communities to consider Sea Level Rise in their plans of Conservation and Development. This was detailed more in the 2013 legislative session, and a bill to require Clean Water Act funded projects to consider climate was also passed.

An Act Concerning Climate Change and Data Collection

Pursuant to Special Act 13-9, "An Act Concerning Climate Change and Data Collection," the State of Connecticut must establish a "Center for Coasts" that will conduct research, analysis, design, outreach and education projects to guide the development and

implementation of technologies, methods and policies that increase the protection of ecosystems, coastal properties and other lands and attributes of the state that are subject to the effects of rising sea levels and natural hazards. Specifically, the Connecticut Center for Coasts was charged with undertaking the following activities:

- Mapping exercises to assess and visualize key characteristics of shoreline resiliency, such as shoreline changes,
- Pilot-scale engineering and impact assessment studies,
- Consensus building efforts to determine state-wide uniform guidelines for planning and development purposes, including the expected rate of sea level rise for the next 100 years,
- Ways to develop state-wide, science-based planning and management alternatives,
- Development in science and information-based outreach and technology transfer programs for state and local agencies and officials involved in planning and development,
- An assessment of soft shore protection strategies in Long Island Sound and the development of instructional guides for the use of such soft shore protection strategies,
- A comprehensive coastal infrastructure inventory and risk assessment,
- An analysis of the impact of seawalls in urban and rural communities,
- The development of uniform, state-wide models that predict inundation flood scenarios under slow, constant sea level rise and under storm surges,
- Projects that lead to the development of rapid storm damage assessment technology,
- Developing design guidelines for the construction and repair of structural and non-structural shore protection, and
- Developing tools for determining appropriate shore protection strategies and providing coastal protection information to a diverse range of end users.

Subsequently, the DEEP Office of Planning and Program Development and the former OLISP teamed with the University of Connecticut to establish the Connecticut Institute for Resilience and Climate Adaptation (CIRCA). CIRCA has been actively engaged in outreach, education, local partnerships, and dispensing of funds since 2014. More information about CIRCA is provided below.

An Act Concerning the Permitting of Certain Coastal Structures by the Department of Energy and Environmental Protection

Public Act 13-179 clarifies several Connecticut statutes by making reference to the National Oceanic and Atmospheric Administration (NOAA) sea level rise discussions in Technical Report OAR CPO-1 (Global Sea Level Rise Scenarios for the United States National Climate Assessment, December 6, 2012).

Pursuant to Public Act 13-179, the definition of sea level rise was changed as follows: "Rise in sea level" means the arithmetic mean of the most recent equivalent per decade rise in the surface level of the tidal and coastal waters of the state, as documented in National Oceanic and Atmospheric Administration online or printed publications for said agency's Bridgeport and New London tide gauges.

The Act states that municipalities shall consider sea level rise when developing Plans of Conservation and Development, and also states that in the preparation of any municipal evacuation plan or hazard mitigation plan, a municipality shall consider sea level change scenarios published by NOAA in Technical Report OAR CPO-1.

An Act Concerning Sea Level Rise and the Funding of Project by the Clean Water Fund

Public Act 13-15 allows DEEP to maintain a priority list of eligible water quality projects and established a system setting priority for making project grants, grant account loans and project loans. This law essentially incorporates climate change planning into funding of wastewater (sanitary sewer system and sewage treatment) projects.

In establishing such priority list and ranking systems, DEEP shall consider factors deemed relevant including but not limited to the following: (1) public health and safety; (2) protection of environmental resources; (3) population affected; (4) attainment of state water quality goals and standards; (5) consistency with the state plan of conservation and development; (6) state and federal regulations; (7) the formation in municipalities of local housing partnerships; and (8) the necessity and feasibility of implementing measures designed to mitigate the impact of a rise in sea level over the projected life span of such project.

The following Executive Orders related to climate change and resilience were issued subsequent to the 2014 edition of this plan:

- Executive Order 46 (2015): Established a Governor's Council on Climate Change to monitor the state's greenhouse gas emissions and make recommendations to meet the 2050 GWSA target.[229]
- Executive Order 50 (2015): Establishes the State Agencies Fostering Resilience (SAFR) Council, which is responsible for strengthening the state's resiliency from extreme weather events, including tropical storms, hurricanes, storm surges, flooding, ice storms, extreme high winds, extreme heat, and slow onset events such as sea level rise. The "SAFR Council" is responsible for working to create a Statewide Resilience Roadmap based on the best climate impact research and data and assisting OPM in the creation of a State policy on disaster resilience. SAFR interacts with CIRCA and will be involved with the NDRC-funded planning in the coming years.

An Act Concerning Climate Change Planning and Resiliency

This bill (SB 7 (PZ 18-82)) establishes a new greenhouse gas (GHG) emissions reduction requirement and integrates GHG reductions into various state planning documents and efforts, such as the state's Integrated Resources Plan and its plan of conservation and development. It also incorporates the new reduction into the law's existing energy source solicitation requirements.

[229] http://www.ct.gov/deep/lib/deep/climatechange/eo_46_climate_change.pdf

The bill integrates sea level change projections, determined by UConn's Marine Sciences Division as an update of existing federal projections, into various municipal and state planning documents, such as state and municipal plans of conservation and development and municipal evacuation or hazard mitigation plans. It also applies these projections to the state's coastal management and flood management laws.

The bill renames the state's Comprehensive Energy Strategy as the Comprehensive Climate and Energy Strategy, and requires it to be updated to account for the state's GHG reduction requirements.

The bill establishes the Connecticut Council on Climate Change as a statutory council, which must facilitate and coordinate efforts with various parties to reduce GHG emissions and increase the state's resiliency to climate change.

The bill also makes many minor, technical, and conforming changes, including those to account for the council's renaming and incorporate the revised content, eliminate obsolete provisions such as a law on the Governor's Steering Committee subcommittee on climate change, replace a reference in the flood management statutes to "one-hundred-year flood" with "base flood," and eliminate an incorrect statutory reference.

The Act incorporates the State's official sea level rise projections into various statutes, and amends the definitions in Chapter 476A, Floodplain Management (CGS 25-68(b) through 25-68(o)) to incorporate freeboard directly into the definition of floodproofing:

(6) "Flood-proofing" means any combination of structural or nonstructural additions, changes or adjustments which reduce or eliminate flood damage to real estate or improved real property, to water and sanitary facilities, and to structures and their contents, including, but not limited to, for properties within the coastal boundary, as established pursuant to subsection (b) of section 22a-94, not less than an additional two feet of freeboard above base flood and any additional freeboard necessary to account for the most recent sea level change scenario updated pursuant to subsection (b) of section 25-68o, as amended by this act.

An Act Concerning Revisions to Certain Environmental Quality and Conservation Programs

Public Act 18-181 goes by the full title of "An Act Concerning Revisions to Certain Environmental Quality and Conservation Programs of the Department of Energy and Environmental Protection and Certain Farmland Preservation Programs of the Department of Agriculture and Establishing a Working Group on Microfiber Pollution, Authorizing School Instruction and Curriculum on Climate Change, Requiring Updated Hazardous Mitigation Plans for Certain Hazardous Chemical Facilities, Permitting Sunday Bow Hunting of Deer Throughout the State and Establishing a Pilot Program on the Separate Collection of Glass from other Recycling Programs." This Act contains a section on emergency planning for companies using hazardous chemicals, which can help guide companies in reducing chemical spills after a hazard event.

3.2.2 Connecticut State Agencies Associated with Natural Hazard Mitigation

There are a number of state agencies that are associated with natural hazard mitigation within Connecticut. Some divisions and agencies such as DEMHS and DEEP share the roles and responsibilities for hazard mitigation. These are the two primary entities associated with natural hazard planning and mitigation efforts.

Other agencies are associated with natural hazard mitigation through their policies or plans in which they are charged with developing and implementing. The following is a presentation of the state agencies and their relative divisions associated with natural hazard mitigation in Connecticut.

Department of Emergency Services and Public Protection, Division of Emergency Management and Homeland Security (DEMHS)

Title 28 of the Connecticut General Statutes outlines the roles and responsibilities of the DEMHS. DEMHS is responsible for:

- Providing a coordinated, integrated program for state-wide emergency management and homeland security;
- Directing the preparation of a comprehensive plan and program for the civil preparedness of the State;
- Coordinating with state and local government personnel, agencies, authorities, and the private sector to ensure adequate planning, equipment, training, and exercise activities;
- Coordinating emergency communications and communication systems of the state and local government personnel, agencies, authorities, the general public, and the private sector; and
- Distributing and coordinating the distribution of information and security warnings to state and local government personnel, agencies, authorities, and the general public.

The division assumes many roles for the State including:

- Maintains the local branch of the National Warning System (NAWAS);
- Serves as the Alternate State Warning Point (AWSP). DESPP serves as the Primary State Warning Point (PSWP).
- Develops and maintains various types of emergency operations plans for state government;
- Provides technical planning assistance to communities as requested or as needed;
- Provides emergency management and homeland security training programs for state and local governments;
- Conducts emergency operations drills and exercises;
- Administration of the Hazard Mitigation Programs of the state.

In times of disaster or emergency, alerts key state, federal and local response organizations and acts as a central coordination point for all state agencies at the State Emergency Operations Center (EOC) in Hartford, CT.

DEMHS and DESPP currently operate the state's "Alert" Emergency Notification System (ENS) which is powered by Everbridge. The Alert ENS utilizes the state's Enhanced 911 database for location-based notifications to the public for potentially life-threatening emergencies. The Enhanced 911 database includes traditional wire-line telephone numbers in the state (the "land line" phones). However, residents may register on-line at www.ct.gov/despp for other means of communication to the Alert ENS, in addition to the land line. Residents can receive emergency alerts on communication methods such as a mobile phone, e-mail, text message, or certain hearing impaired receiving devices.

At the present time, most of the state's municipalities subscribe to the Everbridge-powered Alert system. However, a handful of towns opted out of the system and utilize the CodeRED notification system (or other), citing reasons such as cost and control of their abilities to distribute messages.

DEMHS Disaster Preparedness Programs

DEMHS is responsible for administering the State's disaster preparedness programs and for developing and implementing Connecticut's Natural Disaster Plan, which outlines the steps to be taken prior to, during and after the occurrence of a disaster event (a copy of this plan is provided within Appendix 3-3). In addition, DEMHS administers the following disaster preparedness programs:

- **State Homeland Security Grant Program** – DEMHS is the State Administering Agency (SAA) for Emergency Management and Homeland Security grants provided by the U.S. Department of Homeland Security (DHS) and FEMA. These grants include the State Homeland Security Grant Program (SHSGP) Emergency Management Performance Grant Program (EMPG). The Buffer Zone Protection Program and Urban Area Security Initiative are now contained under the SHSGP cadre of grants. Funds from these programs are used for providing planning and equipment grants to state, regional, and local government agencies. The purchase of interoperable communication systems has been a major activity in ensuring disaster preparedness.
- **Radiological Emergency Preparedness (REP) Program** – This program is responsible for off-site planning and preparedness in the event of an accident at either the Millstone Nuclear Power Stations in Waterford or the station at Indian Point, New York. The REP program develops and maintains radiological plans and procedures, which are regularly evaluated by FEMA. The REP network includes ten emergency planning zone communities including Fishers Island, five host communities, numerous key state agencies, and local emergency responders. In addition, the REP program conducts other related activities such as annual conferences for public officials, media briefings, and training of state and local emergency workers.

Department of Energy and Environmental Protection

Public Act 11-80, "An Act Concerning the Establishment of the Department of Energy and Environmental Protection and Planning for Connecticut's Energy Future" (Act), combined the former Department of Public Utility Control (DPUC) and an energy group from the Office of Policy Management (OPM) with the Department of Environmental Protection (DEP) to form the Department of Energy and Environmental Protection (DEEP) to better address the challenges of the modern environmental world and energy market. The former Department of Public Utility Control is now called the Public Utility Regulatory Authority (PURA) and continues to perform the regulatory functions of the former DPUC. The Act also required DEEP establish a Bureau of Energy and Technology Policy – the first energy policy office in decades for the state.

The DEP was established in 1971 at the dawn of the environmental movement, while the public utilities regulatory authority traces its roots back more than 150 years to the state's Railroad Commission.

DEEP is charged with conserving, improving and protecting the natural resources and the environment of the state of Connecticut as well as making less expensive, cleaner and more reliable energy available for the people and businesses of the state. The DEEP is organized into three main branches and the Office of the Commissioner:

The Environmental Quality Branch is comprised of the Bureaus of Air Management, Materials Management and Compliance Assurance, and Water Protection and Land Reuse. These bureaus protect the air, land and water resources of the state by regulating air emissions, wastewater discharges and solid and hazardous wastes. Tools used include the development of regulations, policies and standards; permitting and enforcement; air and water quality monitoring; and public outreach and education.

The Environmental Conservation Branch consists of two bureaus. The Bureau of Natural Resources is charged with managing the state's natural resources (particularly fish, wildlife, and forests) through a program of regulation, management, research, and public education. The Bureau of Outdoor Recreation is charged with the conservation and management of statewide recreation lands and resources through the acquisition of open space and the management of resources, including state parks, to meet the outdoor recreation needs of the public.

The Energy Branch includes the Public Utilities Regulatory Authority (PURA) – formerly the Department of Public Utility Control – which reviews rates for electricity, water, cable television and other utilities as well as a Bureau of Energy and Technology Policy, which develops forward-looking energy efficiency, infrastructure and alternative power programs.

The Office of the Commissioner, including the Offices of Chief of Staff, Planning and Program Development, Information Management, Adjudications, Environmental Justice, and Legal Counsel, provides administrative management, staff assistance, and ancillary service to aid the Commissioner and Bureau Chiefs in their efforts to carry out the mission of the agency. In addition, the centralized Bureau of Central Services provides a wide array of services including financial management, human resource management and purchasing.

DEMHS is the principal flood management agency in the State, with DEEP assisting. Within DEEP, the Land and Water Resources Division (LWRD) formerly housed the Flood Management Program. The LWRD was merged with the Office of Long Island Sound Programs (OLISP) in 2016 and their functions are now part of the Land and Water Resources Division within the Bureau of Water Protection and Land Reuse. The Land and Water Resources Division is therefore the lead division for planning and coordinating flood management and post natural disaster mitigation responses. Other assisting DEEP divisions are the Water Planning and Management Division (also within the Bureau of Water Protection and Land Reuse) and the Forestry Division (within Natural Resources).

Water Planning and Management Division

The Water Planning and Management Division includes the Dam Safety and State Dam Programs (both from the former IWRD) and the Flood Alert Center.

The following actions were undertaken by DEEP's IWRD and other state agencies in the 1980s and 1990s to improve the State's capability to respond to flood emergencies. These measures were taken as a result of recommendations formulated in the 1983 and 1989 Flood Hazard Mitigation Reports:

- State Sandbag Policy and Procedures (OCP, currently DEMHS 1984)
- Guidance for municipal flood emergency planning issued (1983)
- Operational Guide for the Connecticut Automated Flood Warning System (updated in 2000) prepared, Emergency Operations Guidelines prepared for the Flood Warning System (1987)
- Installations of Advanced Technology NOAA Weather Radios (A.K.A WRSAME) in schools, state parks, and command centers (1992-93)
- Expansion and upgrading of equipment and technology within the Automated Flood Warning System (1992, 2002)
- Installation of telemetry equipment to receive satellite and radar information (1993)
- Establishment of a fax/email weather warning system (1994).

Dam Safety Program

The Connecticut DEEP Dam Safety Program has jurisdiction over all non-federally owned or licensed dams in the State which would by failing or otherwise endanger life or property. The five program staff maintain an inventory for nearly 4800 dams in Connecticut. Smaller dams determined to be of Negligible Hazard and other small dams of undetermined hazard classification while inventoried, are not presently being closely monitored. CT DEEP does not monitor or have jurisdiction over dams that are federally owned including US Army Corps of Engineers (USACE) flood control dams and hydropower dams licensed by Federal Energy Regulatory Commission (FERC). As of March 2018 this includes:

- 281 total and 258 DEEP jurisdictional **High Hazard** (Class C) dams,
- 275 total and 262 DEEP jurisdictional **Significant Hazard** (Class B) dams,
- 722 total and 714 DEEP jurisdictional **Moderate Hazard** (Class BB) dams, and

- Approximately 1900 Low Hazard (Class A) dams.

The Program's ultimate responsibility is to ensure all jurisdictional dams in the state are being operated and maintained in a safe condition. The owners of high and significant hazard dams are required by statue to regularly inspect, maintain, and repair their dams and have current Emergency Action Plans (EAPs) ready for implementation should hazardous conditions arise.

The programs major responsibilities include:

1. **Inspections**. The responsibility to undertake regulatory inspections was transferred from the State DEEP, to Dam owners through legislation in 2013. Program staff still perform inspections of all types, but all regulatory inspections are required to be performed by engineers hired by the dam owner. (In rare cases, DEEP has the authority to perform these inspections and charge the property owner. Regulatory Inspections must meet the requirements of section 22a-409 of the regulation.
    a) Since 2014, Program staff have issued or re-issued over 1200 Notices of Required Inspections (NORI) for state-owned and privately owned dams in CT.
    b) Non-compliance has required program staff to issue notices of violation or reminder letters. Around 150 dams remain in a state of non-compliance with assigned inspections since the 2014 program inception needing staff to issue notices of violations or the appropriate response.
2. **Emergency Action Plans** (EAP) for B and C dams. Program staff review all EAPs for conformance with section 22a-411a of the regulation. Staff attend EAP Tabletops and Drills. The owners of the larger Flood Control Levee's in the state (which are DEEP jurisdictional), have more recently been accredited by FEMA and certified by the USACE are not presently being required to submit an EAP pursuant to 22a-411a of the regulations, as an appropriate guideline for writing an EAP for these levee structures does not exist at this time. The need to have updated EAPs for this small subset of dams was put on hold until guidelines could be written and because the existing levee operations plans written by the USACE are the presiding documents for these structures.
    a) **A total of 245 Class C High hazard dams are expected to have DEEP reviewed EAPs that** conform to section 22a-411a of the regulation. As of March 2018, about 173 Dam owners have EAP's that have been updated and are in various stages of review and approval. EAP's for another 37 dams are being prepared and another 35 dam owners recently were sent notices of violation for failing to submit an updated EAP.
    b) A total of 259 **Class B Significant hazard** dams are expected to have DEEP reviewed EAPs that conform to section 22a-411 of the regulation. As of March 2018, about 94 Dam owners have EAP's that have been updated and are in various stages of review and approval. EAP's for another 30 dams are being

prepared and another 135 dam owners recently were sent notices of noncompliance for failing to submit an updated EAP.

3. **Permitting**. Program staff attend pre-application technical meetings, review general and individual permit applications, issue permits and approvals, follow up on repair projects.
    a) Since the October 2015 issue date, program staff have processed 50 general permit filings.
    b) There were 20 individual permit applications in 2017 for repairs or removals.
    c) There were 11 individual permit applications in 2016 for repairs or removals.
    d) There were 14 individual permit applications in 2015 for repairs or removals.

   There is a correlation between the number of request letters to dam owners and the number of permit applications received. As program staff begin to resolve the backlog of inspection reports needing review and issue more request letters, the number of permit applications will increase significantly. General permits are anticipated to become the dominant authorization mechanism for minor repairs that are identified during the inspections while individual permits will be used for major rehabilitation or removal projects.
4. **Enforcement**. When a dam is found to be in need of repairs and the dam owner not responsive, program staff initiate enforcement as needed. Informal enforcement such as Notices of Violation or Non-Compliance and formal enforcement such as unilateral and consent orders are available to ensure that critical issues such as regulatory inspections requirements, EAP preparation requirements, and critical needed repairs are undertaken by the dam owners.
    a) If an **emergency condition** exists which represents a clear and present danger to the public, Dam Safety can order the repair or removal of the structure. Should the dam owner fail to repair or remove the structure in the time specified by the order, the Department may do so and bill the owner for the costs.
5. **Technical Support**. Program staff provide technical support to the staff of the DEEP State-owned dams program and other state agencies. There are over 250 DEEP-owned dams and approximately 50 additional dams owned by other CT State agencies or institutions. Program staff also respond to calls and emails and FOIA requests submitted to the program from dam owners, consultants, elected officials, other state officials, and the general public.
6. **Inventory**. Program staff maintain an Inventory of dams in CT in an Access database which is regularly updated with dam owner information, inspection report data, EAP's and status, dam physical size and shape data, and communications data. Program staff also maintain an electronic document archive of word and Adobe Acrobat PDF documents, and an email archive for each dam along with the original paper files.
7. **GIS Data**. Program staff maintain a GIS data layer which has an old dam failure inundation shapefile which was obtained by digitizing the dam failure inundations

maps prepared for the 1980-1982 era Phase I and II dam inspection reports. While outdated, they remain a useful resource in a flood event. Unfortunately section 22a-411 of the regulation does not require dam owners to submit their EAPs and the inundation area mapping electronically or in a GIS shapefile.

8. **Critical Facilities**. DEEP State-owned Dams program staff maintain Critical Facilities mapping.
9. **DamWatch**. The DEEP subscribes to the US Engineering DamWatch program for DEEP owned dams. DamWatch is an online real-time Nexrad radar precipitation based monitoring application for dams. All 250 DEEP owned dams are monitored by DamWatch. DamWatch will notify DEEP staff whenever a pre-set precipitation threshold has been surpassed within the drainage area to one of the monitored dams. The notice allows staff to know as early as possible when precipitation intensity and duration may create flood conditions at a monitored dam. The DamWatch also makes archived data for each monitored dam such as reports, the EAP and construction drawings available online and includes an assignment ticketing system that allows managers to assign designated field staff to inspect dams in their area.

Automated Flood Warning Systems

The original automated flood warning system was installed in Connecticut by the NRCS in cooperation with DEP in 1985 as a direct result of the June flooding of 1982. The flood warning system aided the NWS in issuing faster flood watches and warnings, and aided communities in responding more rapidly to impending flooding situations. In several communities flood audits were prepared by the NRCS. These flood audits identified which structures were in danger at specific water levels as measured by the water level gages in the warning system.

At its peak, the DEEP owned and maintained 45 ALERT gages. However, due to funding issues, staffing cuts, and obsolescence of the system, the ALERT program has been discontinued. DEEP and other flood response agencies rely on data from USGS and NOAA for information.

Land and Water Resources Division

The Land and Water Resources Division includes the Flood Management Program (formerly in the IWRD) which coordinates directly with FEMA on RiskMap and NFIP as noted below; the Coastal Planning Program (formerly in OLISP) which is charged with coordination on Coastal Zone Management matters including coastal hazard mitigation; and the Coastal Resources Program (formerly in OLISP) which oversees permitting related to coastal resources.

Flood Management Section

The Flood Management Section is the state coordinating entity for the National Flood Insurance Program (NFIP). This section reviews and approves state agency activities within or affecting floodplains and conducts municipal NFIP compliance audits, training

workshops, and provides assistance for the development of local floodplain ordinances. The Flood Management Section provides general technical assistance to municipalities on flood mapping and floodplain management inquiries. Furthermore, this section is responsible for the implementation of FEMA's Map Modernization Program at the state-level.

Map Modernization

In the past, FEMA's NFIP re-mapping efforts have been limited by both technology and funding. In recognition of these limitations, Congress has committed to a Multi-Hazard Flood Map Modernization Management Program (MHFMMM); herein referred to as Map Modernization. Starting in fiscal year 2003 the goal of Map Modernization was to upgrade flood hazard data and mapping to create a more accurate digital product by 2010. Upgrading the maps was planned to improve floodplain management throughout the nation by providing more accurate flood data for use in planning and regulatory decision-making and by providing a product in a digital format that will be easily accessible to multiple users. The Map Modernization Program has been phased in over the course of several years with priority given to areas of greatest flood risk as determined by the State and approved by FEMA.

The purpose of this Map Modernization Plan; herein referred to as Business Plan, is to outline the DEEP's strategic approach for partnering with FEMA to participate in Map Modernization through DEEP's existing Floodplain Management Program (FMP). The Plan describes the FMP's current roles and responsibilities related to floodplain management, outlines its future role, organizational design, and execution strategy to meet the data and mapping needs of communities within the State of Connecticut.

The FMP currently includes a proactive approach that combines two key elements under one organization: (1) NFIP community compliance, and (2) technical assistance and outreach to communities and agencies. It is envisioned that the compliance element will expand significantly based on map modernization activities due to municipal floodplain management ordinance changes. This linkage of NFIP community status assurance from the existing NFIP Compliance efforts, within the DEEP Community Assistance Program (CAP), will complement and enhance the effectiveness of the expanded FMP. If fully funded by FEMA, program management of the FMMP will be achieved through the expertise of a diverse, skilled project team complemented by external support from an independent state mapping contractor, and other state and federal partners. Program management will be centered on the identification of program goals and clear implementation and tracking of these goals during the program execution. Program management will be further enhanced by a data management system such as the Management Information Portal (MIP) provided by FEMA's National Service Provider.

The Business Plan addresses how Map Modernization will integrate with existing program needs over time, such as coastal erosion mapping, stream flow modeling for varying flow conditions, comprehensive land use planning, and others.

Education and outreach play a vital role in Map Modernization by promoting and building floodplain management capacity throughout the State, which includes training, workshops and presentations for local officials, lenders, insurance agents, land surveyors, engineers, regional planning commissions, and various state agencies and programs.

The success of the FMP and related programs within the DEEP is contingent on the receipt of adequate funding over multiple years from our Federal partners. Approximately $1.45 million per year (on average) is required to implement this plan. Of that amount, the FMP anticipates that approximately $480,000 per year may be available from state and partner contributions, which are mostly in-kind, and data matches. Total implementation costs over the five-year period are estimated to be $8 million. In order to adequately pursue efforts to manage mapping activities and contractors a multiple year commitment from FEMA for funding for staff is essential.

Risk MAP

Risk Mapping, Assessment, and Planning (Risk MAP) is the FEMA program that provides communities with flood information and tools they can use to enhance their mitigation plans and take action to better protect their citizens. Risk MAP focuses on products and services beyond the traditional FIRM and works with officials to help put flood risk data and assessment tools to use, effectively communicating risk to citizens and enabling communities to enhance their mitigation plans and actions.

The initial Risk MAP products in Connecticut were associated with the new coastal flood mapping prepared by the STARR team for FEMA. These coastal maps were distributed to the communities of Fairfield, New London, New Haven, and Middlesex counties in 2011 as drafts and will be adopted by the communities in 2013. Along with the new FIRMs, the Risk MAP product "Changes Since Last FIRM" (CSLF) were distributed to the coastal communities. These maps were created as communication tools and were presented to the communities at meetings with the intent that communities will better understand the changes due to the updated coastal analysis.

Flood Management Certification

The Flood Management Certification Program regulates all state actions in or affecting floodplains including regulating state sponsored changes to storm water drainage. Any state activity or grant funds supporting an activity located in a FEMA-mapped SFHA or 0.2% annual chance flood zone must certify to the DEEP that certain statutory and regulatory requirements have been met. These requirements always are equal to or exceed NFIP minimum standards (e.g., critical facilities and activities must be mitigated up to or elevated above the 500-year floodplain elevation, no increase in "intensity of use" in the floodplain without going through an exemption request demonstrating that the project is "in the public interest" and that the project "will not injure persons or damage property in the area of the project", etc.).

Stream Channel Encroachment Lines

The SCEL Program predated the NFIP and was a state program that regulated the placement of encroachments and obstructions in the floodplains of certain watercourses by regulating these obstructions and encroachments riverward of legally established lines. A permit from the DEEP was required for any activity riverward of established encroachment lines.

Encroachment lines were generally based on a 100-year flood or the flood of record, whichever is greater. The lines encompassed significant floodwater conveyance areas, areas of high velocity flows, and areas subject to significant depths of flooding. The majority of the lines were established following the devastating floods of 1955. However, in 1982 an additional 12 miles were established on the Yantic River in southeastern Connecticut. More recently, the Norwalk River Basin was re-studied, and revised SCEL maps were established in 1997.

While the program was successful in discouraging inappropriate development within the 273 river miles that have been delineated, the high cost of establishing new lines (between $12,000 - $14,000 per mile in 1997 dollars) ultimately reduced the ability of the State to extend lines along other rivers. Furthermore, the strong home rule ethos of municipalities in Connecticut led many communities to regulate development in local floodplains through local zoning regulations which is required for participation in the NFIP program.

Public Act 13-205 was passed in June 2013 to streamline the program. The bill allows, rather than requires, the DEEP commissioner to establish lines to restrict activity along certain tidal or inland waterways or flood-prone areas without authorization, and revokes any order establishing such lines. By eliminating the commissioner's authority to establish these lines, the bill eliminated the related permitting program, and the program is defunct.

Former Office of Long Island Sound Programs

The former Office of Long Island Sound Programs (OLISP) administered Connecticut's Coastal Management Program, which is approved by NOAA (National Oceanic and Atmospheric Administration) under the federal Coastal Zone Management Act. The Land and Water Resources Division is currently charged with these duties.

Under the statutory umbrella of the Connecticut Coastal Management Act (CCMA) enacted in 1980, the Coastal Management Program ensures balanced growth along the coast, restores coastal habitat, improves public access, promotes water-dependent uses, public trust waters and submerged lands, promotes harbor management, and facilitates research. The Coastal Management Program also regulates work in tidal, coastal, and navigable waters and tidal wetlands under the CCMA (Section 22a-90 through 22a-112 of the Connecticut General Statutes), the Structures Dredging and Fill statutes (Section 22a-359 through 22a-363f), and the Tidal Wetlands Act (Section 22a-28 through 22a-35). Development of the shoreline is regulated at the local level through municipal planning and the zoning boards and commissions under the policies of the CCMA, with technical assistance and oversight provided by Program staff via the Coastal Management Manual.

The CCMA contains a number of strong policies encouraging the protection of natural shoreline sedimentation and erosion processes, and discouraging shoreline flood and erosion control structures (also known as "hard" structures or shoreline armoring, such as seawalls, bulkheads and revetments) except in certain specified conditions. In general, DEEP can authorize the repair of existing erosion control structures and, in limited circumstances, the construction of new erosion control measures in areas waterward of the coastal jurisdiction line through the Structures, Dredging and Fill statutes and Coastal Management Act standards. Currently, a hierarchy or checklist of considerations must be satisfied before a flood and erosion control structure can be authorized. The goal for new

development, however, is one of prevention: designing and building with appropriate setbacks to prevent the need for such structures. Additionally recent activities by DEEP have advanced coastal hazard planning, notably:

- The acquisition of historic shoreline data for use in identifying and quantifying areas of erosion and accretion;
- The use of high-accuracy coastal elevation data to develop a series of visualization tools for assorted sea level rise scenarios;
- The development of a web site that centralizes various data relative to Connecticut's coastal hazard; and
- Establishing partnerships with various regional organizations such as the Northeast
- Regional Ocean Council (NROC) and the Northeast Regional Association Ocean
- Observing System (NERACOOS) all of whom have an active interest and role to play in regional hazard planning and mitigation.

The Program also provided key administration and guidance in the following areas:

- Coastal and Climate Resilience
- Urban Waterfront Revitalization
- Watershed Management/Nonpoint Source Control
- Protecting Water-Dependent Uses
- Improving Public Access
- Restoring Coastal Habitat
- Promoting Harbor Management
- Facilitating Research
- Managing and Protecting Coastal Resources
- Protecting the Public Trust
- Flood and Erosion Control/Coastal Hazards

Former OLISP Regulatory Programs

Relative to flood and erosion control, OLISP authorized the repair of existing erosion control structures and, in limited circumstances, the construction of new erosion control measures in areas waterward of the coastal jurisdiction line through the Structures, Dredging and Fill statutes and Coastal Management Act standards. The Land and Water Resources Division is currently charged with these duties. The goal for new development, however, is one of prevention: designing and building with appropriate setbacks to prevent the need for such structures. Additionally, recent activities by DEEP have advanced coastal hazard planning, notably:

- The acquisition of historic shoreline data for use in identifying and quantifying areas of erosion and accretion;
- The use of high-accuracy coastal elevation data to develop a series of visualization tools for assorted sea level rise scenarios;
- The development of a web site that centralizes various data relative to Connecticut's coastal hazard; and
- Establishing partnerships with various regional organizations such as the Northeast Regional Ocean Council (NROC) and the Northeast Regional Association Ocean

Observing System (NERACOOS) all of whom have an active interest and role to play in regional hazard planning and mitigation

Former OLISP Technical Services and Grant Programs

The Technical Services and Grant Programs section of OLISP initially spearheaded coastal and climate adaptation planning in Connecticut. Subsequent to the adoption of the 2010 Connecticut Hazard Mitigation Plan, OLISP administered a climate change planning process in 2010 and 2011 that was funded by EPA's Climate Ready Estuaries (CRE) program and Long Island Sound Study (LISS). The process included personnel from OLISP and focused on the town of Groton, Connecticut. OLISP partnered with the International Council for Local Environmental Initiatives (ICLEI) to host three workshops with the Town of Groton in 2010 focusing on (1) the climate adaptation planning process and projected global, regional and local climate changes; (2) identification of vulnerabilities from projected changes in global and regional climate; and (3) identification of potential actions that could be used to increase resilience towards existing and projected changes in global and regional climate.

The ICLEI/OLISP/Town planning process resulted in the report "Preparing for Climate Change in Groton, Connecticut: A Model Process for Communities in the Northeast" (April 2011). This report contains lessons learned that can be applied in all communities in Connecticut and beyond. After the workshops and report release, EPA recognized the success of this project as a model for other communities, and funded the development by OLISP and ICLEI of the CT Adaptation Resource Toolkit, or CART. This website, which has recently been migrated to the DEEP website, is one stop shopping for communities who are ready to reduce risk.

As a tangential benefit of this planning effort, the Town of Groton incorporated some of the findings and strategies into its part of the Southeastern Connecticut Multi-Jurisdiction Hazard Mitigation Plan update, its Municipal Coastal Program update, and its Plan of Conservation and Development update.

There are several other communities OLISP supported for adaptation programs and actions including Greenwich. The town of Greenwich evaluated coastal risks by cataloguing and analyzing elevation certificates for buildings in the coastal AE flood zones.

OLISP partnered with UCONN/SeaGrant/CLEAR to offer multiple coastal resilience trainings and workshop in 2012-2013, as well as partnered with NOAA to bring a three-day training to ten communities to provide tools and strategies for land use and infrastructure decision makers.

Former OLISP of DEEP continue to provide technical assistance, outreach, and education with regard to sea level rise, flooding, coastal hazards, and coastal adaptation planning. However, these actions are typically coordinated with CIRCA's similar actions.

DEEP Energy Branch

The Public Utilities Regulatory Authority (PURA) replaced the former Department of Public Utility Control (DPUC) and, along with the Bureau of Energy and Technology Policy, is part of the Energy Branch of DEEP.

PURA is statutorily charged with regulating the rates and services of Connecticut's investor owned electricity, natural gas, water and telecommunication companies and is the franchising authority for the state's cable television companies. In the industries that are still wholly regulated, PURA balances the public's right to safe, adequate and reliable utility service at reasonable rates with the provider's right to a reasonable return on its investment. PURA also keeps watch over competitive utility services to promote equity among the competitors while customers reap the price and quality benefits of competition and are protected from unfair business practices.

The Bureau of Energy and Technology Policy is charged with developing forward-looking energy efficiency, infrastructure and alternative power programs. Together, PURA and the Bureau of Energy and Technology Policy have overseen several key efforts in the last few years:

DEEP developed the first-ever Comprehensive Energy Strategy (CES) for the State of Connecticut. This is an assessment and strategy for all residential, commercial, and industrial energy issues, including energy efficiency, industry, electricity, natural gas, and transportation. The strategy was developed as called for in the milestone energy legislation, Public Act 11-80, passed in June of 2011 prior to the storms of 2011 (Tropical Storm Irene and Winter Storm Alfred) and 2012 (Sandy) , and as amended by PA 13-303, that impacted energy utilities. Section 51 of this Act requires that DEEP, in consultation with the Connecticut Energy Advisory Board (CEAB), prepare a Comprehensive Energy Strategy for Connecticut every three years. In 2017, DEEP prepared an update to the CES to advance the State's goal to create a cheaper, cleaner, more reliable energy future for Connecticut's residents and businesses.[230]

Connecticut's Energy Assurance Plan (EAP) was developed in 2009-2012 using ARRA funds. This effort commenced at OPM and migrated to DEEP with the agency consolidations. The utility-damaging storms of 2011 and 2012 provided impetus to expand the EAP report. The EAP's structure is influenced by four phases of emergency management – preparedness, response, recovery, and mitigation. Mitigation encompasses all activities throughout the preparedness, response, and recovery phases of emergency management that attempt to prevent energy supply disruptions from occurring or to reduce the impact of an energy supply disruption event. Mitigation activities include, for example, enforcing tree trimming standards (preparedness), administering the Lead By Example program (preparedness), building Microgrids in town centers (response), and incentivizing the inclusion of renewable technology during a rebuild of property (recovery).

Natural gas utilities are an important aspect of energy. Although gas lines are mainly underground, shoreline flooding impacted a few hundred customers in 2012. Public Act 12-148 changed the way that PURA viewed recovery, requiring funding from gas companies. Docket 12-06-09 created performance standards.

[230] http://www.ct.gov/deep/cwp/view.asp?a=4405&q=500752&deepNav_GID=2121

Docket 11-09-09 required many changes to the operations of the State's two major electric utilities, Eversource and UI. The NSTAR/CL&P merger that created Eversource resulted in a commitment of $300 million from ratepayers to make hardening improvements. Docket 12-01-07 reviews the merger and lists the conditions of the merger. Status reports are also required. Docket 12-07-06 reflects the storm hardening program. The DEEP's vegetation management task force has also resulted from these dockets and acts.

Docket 12-11-07 concerns Superstorm Sandy. As a result of this docket, PURA must investigate any storm that causes an outage that exceeds 48 hours.

Another ongoing focus of PURA and ISO is the review of gas dependency for generating electricity. This effort is being undertaken by DEEP, PURA, ISO-New England and other regional entities as well as FERC to consider compelling issues with the electric and gas markets and potential shortages of gas during emergency outage situations.

Microgrids are discussed in Docket 12-01-07 and Public Act 12-148. PURA is actively planning for redundant and hardened energy infrastructure such as microgrids and harden transmission lines. DEEP is conducting the Microgrid Grant and Loan Pilot Program which seeks projects that support local distributed energy generation for critical facilities during times of electric grid outages. To date, DEEP has issued three rounds of requests for proposals, and a fourth round of funding is expected as a result of PA 13-239 which committed the State to $30 million in bonding revenue to support microgrids after the pilot round in 2013.[231]

The Energy Efficiency Board (EEB) is a group of advisors who utilize their experience and expertise with energy issues to evaluate, advise, and assist the state's utility companies in developing and implementing comprehensive, cost-effective energy conservation and market transformation plans to help Connecticut consumers reduce energy use in their homes and businesses and to help Connecticut meet its changing and growing energy needs. The Board was created in 1998 by the Connecticut State Legislature, and now operates under a mandate in Public Act 11-80. The EEB has nine voting members and five non-voting representatives of Connecticut's electric and gas utility companies. By statute the Chairman of the EEB is Commissioner of the DEEP. Other members represent the Office of the Attorney General, the Office of Consumer Council, statewide business, the environmental field, the manufacturing sector, and retail organizations, a chamber of commerce, and retail customers

Forestry Division

There are 32 state forests (totaling nearly 170,000 acres) in the Connecticut state forest system managed by the Division of Forestry. These forests provide a variety of recreational experiences, natural diversity (including threatened, endangered and special concern species), and the preservation of unique sites (both geologic and archeological), the provision of raw materials as forest products, and the maintenance of wildlife and fisheries habitats. The Division's professional foresters work to insure that these forests remain

[231] http://www.ct.gov/deep/cwp/view.asp?a=4405&Q=508780&deepNav_GID=2121

healthy and vigorous while meeting the wide range of demands that the public places on these lands.

The Division of Forestry maintains an active forest fire prevention program and a specially trained force of firefighting personnel to combat forest fires. The division also has crews ready to assist the USDA Forest Service in controlling large fires across the nation. The Division prepares a daily Forest Fire Danger Report. Division of Forestry programs and activities related to forest fire prevention include:

- Maintaining a fully trained and equipped crew of fire fighters "on call" for assistance both in-state and to the federal government in fighting fires in the other parts of the U.S.;
- Conducting a forest fire prevention program utilizing Smokey Bear as a focus;
- Coordinating the timely suppression of all forest fires in the state using trained DEEP personnel, the Connecticut Interstate Fire Crew, local fire departments, and the Connecticut National Guard;
- Administering the federally-funded Volunteer Fire Assistance Program, which provides federal funds for equipment and training to fire departments which serve small communities; and
- Participating in the Northeastern Forest Fire Protection Commission to coordinate mutual aid in fire prevention and suppression efforts among compact members.

Since prevention is still the primary means of reducing wildfire risks, the DEEP regularly posts updates about wildfire risk and circulates warnings to the press. For example, on March 27, 2012 the following DEEP press release was issued and picked up by several news agencies:

> *"DEEP Reminds State Residents of Spring Fire Danger – Forest Fire Danger Level is Very High*
>
> *As firefighters battle a large brush fire that is threatening two homes near Devils Hopyard State Park, East Haddam, the Connecticut Department of Energy and Environmental Protection (DEEP) today reminded residents that the Forest Fire Danger Level is currently VERY HIGH and that weather conditions will cause any brush fires to spread rapidly.*
>
> *With this fire danger, open burning of brush is NOT allowed – even if a resident has a permit from the local open burning official.*
>
> *In addition, the National Weather Service has issued a Red Flag Warning for Connecticut because of weather conditions conducive to the rapid spread of fire. Red Flag warnings are issued when high winds will be sustained or there will be frequent gusts above a certain threshold (normally 25 mph), as is expected to be the case today. Red Flag conditions are also defined by humidity levels, below 30%, and precipitation for the previous five days of less than ¼-inch.*
>
> *Residents need to know that any permit to burn brush is not valid when the Forest Fire Danger is rated high, very high, or extreme," said DEEP Deputy*

Commissioner Susan Frechette. "Anyone spotting a forest fire should remain calm and dial 911 to report the fire as quickly as possible to the local fire Department.

DEEP's Division of Forestry constantly monitors the danger of forest fire to help protect Connecticut's 1.8 million acres of forested land. Forest fire danger levels are classified as low, moderate, high, very high or extreme.

DEEP firefighters are currently assisting local fire departments in fighting a fire in East Haddam in the vicinity of Devils Hopyard State Park. The first efforts to battle this blaze began Monday evening and continue today."

Solid Waste Division – Debris Management Plan

The DEEP prepared the State of Connecticut Disaster Debris Management Plan in 2007 (the Plan) as a component in the State's overall comprehensive efforts to support and implement improved planning for disaster debris management. This Debris Plan was made an Annex to the State's Natural Disaster Plan (2009). An update was prepared in June 2013, remaining an annex to the State Natural Disaster Plan. The Plan establishes the framework for State agencies and municipalities to facilitate proper management of debris generated by a natural disaster. In addition to the Plan, the State has established pre-need and pre-event contracts to assist the State in disaster debris management preparedness. These contracts will be activated only by the Governor as the result of an emergency declaration and will cover debris removal operations and the monitoring of these operations.

The Plan is based on guidance provided by FEMA, EPA, USACE and lessons learned from the destructive hurricanes in the gulf coast states in 2004 and 2005. The Plan outlines the DEEP's processes to consider, approve or disapprove requests for authorizations, variances, and waivers as needed for rapid and environmentally sound waste management, specifically with regard to managing the natural-disaster debris waste stream. In addition, this Plan outlines debris removal and monitoring roles and responsibilities and presents an overview of eligible federal reimbursable costs resulting from debris clean up and monitoring. State government agencies and municipalities will be the primary users of this Plan. Municipalities in particular, will make use of the information for planning pre-positioned contracts with waste haulers, as well as identifying disaster Temporary Debris Storage and Reduction Sites (TDSRS) that may be called into use during disaster recovery operations. Much of the information will also be useful to the waste management industry as they develop their own in-house plans for participating in a potential disaster recovery scenario.

The Disaster Debris Management Plan implemented by Connecticut state agencies and municipalities is based on recycling and material separation at the point of generation to the extent possible with additional segregation occurring at TDSRS in order to minimize disposal and reduce potential threats to human health and safety. TDSRS will be those sites that have been identified by local and state government, and which have been evaluated and approved by DEEP for the purposes of collection, volume reduction, and transfer to final permitted disposal and recycling facilities. The DEEP is responsible for the permitting of these sites. The goal will be to maximize potential processing and recycling

options consistent with the State Solid Waste Management Plan. This strategy will be of highest priority and public education together with municipal, State, and federal cooperation will be imperative to effectively carry out this mission.

DEMHS has established pre-need and pre-event contracts to assist the State in disaster debris management preparedness. These contracts have been active on three occasions (Tropical Storm Irene, Winter Storm Alfred and Super Storm Sandy) in the past two years by the Governor, as the result of emergency declarations. These contracts cover debris removal operations and the monitoring of these operations.

State Parks Outdoor Recreation and Public Outreach

The Bureau of Outdoor Recreation oversees programs and environmental education workshops for the general public, informal education centers and formal education districts throughout Connecticut. This division is the licensed provider for national curriculum materials such as Project WET- Water Education for Teachers. The focus of Project WET is to provide curriculum materials to teachers in the K-12 educational system, integrating current educational standards and objectives while advancing knowledge of natural resources and conservation activities. As such the Project WET workshops target understanding of water science through watersheds, human impacts and environmental changes that include climate change. A series of workshops currently provided to educators includes emergency preparedness materials for natural disaster planning, as well as using natural disasters as a teaching tool to highlight concepts of sea level rise, flooding, public health and safety, cost analysis and land use planning.

The application of educator workshops that combine DEEP materials and policy with Project WET activities helps illustrate the road to management decisions. The inclusion of such materials in school programs helps support the goals of DEEP and Connecticut's Environmental Literacy Plan – to provide for an environmentally literate citizen. The public outreach office also serves to connect DEEP's actions and policy with non-government organizations and educational centers through professional development workshops that support their educational outreach, in order to provide for current information and consistent messaging about resource policy and management decisions.

Connecticut Geological Survey

It is a role of the State Geologist and the Connecticut Geological Survey to reduce risks from geologic and seismic hazards through assessment and mapping of areas vulnerable to natural hazard events. Geologic research and field investigations support hazard assessments and assist policy makers to minimize damages of future events. These investigations are accomplished through cooperative efforts between the State Geological Survey of DEEP, Connecticut State Universities, private colleges and Universities, and other State and Federal agencies.

The following CT Geological Survey cooperative efforts are related to hazards:

- Surficial Geologic Mapping for NEHRP (National Earthquake Hazards Reduction Program) site effect classification in HAZUS-MH (NE SGs/NESEC) (2010)

- Geochemical Landscapes Soil Analyses and Mapping (DEEP/USGS) (2008-2010) – natural vs. anthropogenic geochemical information
- Subsurface Geologic Mapping from Well Completion Reports (DEEP/USGS) (2008/09) – ground water resource mapping
- Surficial Aquifer Potential Mapping (DEEP/EPA) (2006-2008) – water resource protection
- Characterization of Bedrock Aquifers (DEEP/USGS) (2002) – source water protection; surface/groundwater interactions
- State Geological Map of Connecticut digitized (DEEP/CT DEM) (1998-99) – seismic hazards mapping
- Indoor Radon Potential Mapping (DEEP/DPH/EPA) (1990-1997) – well water & indoor air radon distribution mapping

The Connecticut Geological Survey provided support for DEEP efforts involving erosion susceptibility (1:24,000 scale) as a planning tool for predicting terrace escarpment erosion. This mapping was derived from a synthesis of Quaternary geology and soil mapping characteristics. Field testing at 60 key locations enabled mapping methodology to be applied statewide. Erosion susceptibility mapping is available to environmental planners within DEEP through GIS and to the public through free data download.

The Connecticut Geological Survey has prepared digital geologic and soils data for hazards assessments and analyses through cooperative efforts with the NRCS and the U.S. Geological Survey. These data support agency assessments of seismic risk, inland and coastal flooding, shoreline erosion, and sea level rise.

The catalog of digital GIS data available from DEEP, including geologic and soils data is available through www.ct.gov/deep/gisdata/.

Department of Transportation (DOT)

In addition to its overall responsibility to provide a safe, efficient and cost-effective transportation system that meets the mobility needs of its users, the Connecticut Department of Transportation (DOT) is responsible for several short- and long-term natural hazard mitigation objectives in Connecticut. The short-term objectives include plowing of roads during winter storms and repairing the public transportation network after natural disasters. DOT's long-term goals include the design of flood and earthquake resistant roads and bridges.

Four of DOT's major short-term mitigation efforts are their Storm Control Center, State Tracking Automated Request System (STARS), Advanced Traffic Management System (ATMS), and Bridge Inspection Program:

The DOT Storm Control Center is operational during severe weather events ranging from winter storms to hurricanes. The Storm Control Center coordinates the plowing operations of over 600 crews during winter storms, as well as tree and debris removal crews when deemed necessary during all other severe weather events winter or summer.

The DOT has implemented STARS, a program to post road closures to the DOT's internet site for the public during major storms.

The ATMS system is a network of cameras and road sensors that monitor road conditions and traffic flow on Connecticut's Interstate Highways. Using automated road signs, the ATMS system also warns drivers of traffic congestion, accidents or hazardous driving conditions.

The Bridge Inspection program uses an automated computer based monitoring system that alerts DOT personnel when a scour critical bridge is experiencing a high rainfall or stream flow event. The system uses rain intensity and river gage information to trigger alerts so that bridge inspectors can be dispatched to the identified bridge(s). A plan of action has been developed for each scour critical bridge to aid the inspector in monitoring and possible closure of the structure.

Some of DOT's long-term mitigation efforts include:

- Improving the design of roads and bridges above the 100-year floodplain;
- Seismic resistant bridge retrofit projects and designing new bridges to resist earthquakes;
- Storm evacuation route planning; and
- Increasing the clear zone on all roadways where needed to prevent road closures and damage due to downed trees and limbs.

DOT commenced a "Climate Change and Extreme Weather Pilot Project" in 2013 using a grant from the Federal Highway Administration. The project will include vulnerability assessments of culverts and bridges in Litchfield County that are between six and 20 feet in length, with regard to flooding caused by increasing precipitation and extreme rainfall events. The assessment will evaluate the existing storm event design standards, the recent (ten year) historic actual rainfall intensity and frequency, and evaluate the hydraulic capacity of these structures using the projected increases in rainfall based on best available data and studies. Litchfield County was selected due to the inland flood damages observed in the northwest corner of the state over the last few years. The scope of this project was identified in the Connecticut Climate Change Preparedness Plan which was a product of a statewide effort that took place from 2005 through 2011.

In addition to the vulnerability assessment, the project will include a process that assigns a criticality value to the risk of failure. This will assist the Department in prioritizing replacement and reconstruction efforts to these structures where they pose the greatest risk to human health and safety, public and private property loss, and the economic risk of replacement after failure versus proactive replacement. This project will add to the existing framework by providing a model process for assessing the hydraulic capacity of smaller structures in the rural urban fringe and the criticality of those assets in similar geographies.

DOT provides technical assistance to DEEP and DEMHS in reviewing projects concerned with implementing roadway construction projects and other related transportation issues. A member of the DOT is appointed to the CIHMC.

Department of Public Health (DPH)

In the course of a day, more than 2.86 million Connecticut residents, as well as many others who visit the state, come into contact with drinking water provided by a public water system, whether community, non-community or non-transient, non-community. The CT Department of Public Health (DPH) Drinking Water Section (DWS) is responsible for ensuring that all public water supply systems provide a water supply of adequate quantity and quality to their consumers.

The DPH maintains the following two plans that relate to emergency response and mitigation: 1) Connecticut Public Health Emergency Response Plan and 2) DWS Emergency Contingency Plan.

DPH provides technical assistance to DEEP and DEMHS in reviewing projects with respect to drinking water issues including sources, adequacy, and infrastructure. A member of the DHCD may be appointed to the CIHMC.

Connecticut Public Health Emergency Response Plan

The DPH is the lead administrative and planning agency in Connecticut for public health initiatives including public health emergency preparedness. DPH works with federal, state, regional, and local partners to improve the State's ability to respond to public health emergencies. The Connecticut Public Health Emergency Response Plan (PHERP) identifies the appropriate DPH response activities during a public health emergency. This plan supports the public health and medical care component in existing state disaster and emergency plans.

The purpose of the PHERP is to support the following four functions of the Connecticut emergency response effort:

- Maximize the protection of lives and properties;
- Identify the DPH procedures to implement when responding to a natural, biological, chemical, radiological, nuclear, or explosive emergency that threatens the public health of Connecticut;
- Contribute to emergency support functions, as appropriate, particularly emergency support function #8 of the PHERP (Health and Medical Services) at the state level to define policies and procedures for DPH and other public health partners in preparation for and in response to a public health emergency; and
- Enable the State of Connecticut to continue to operate and provide services as normally and effectively as possible in the event of a public health emergency.

Connecticut Drinking Water Section Emergency Contingency Plan

Acting on behalf of the DPH, the DWS protects public health through regulatory oversight of public water systems throughout the state. Implicit in this mission statement is providing immediate "emergency" support to water supplies and the public. It is part of the DPH's mission to influence, through regulation and communication, the operation of public water systems so that all necessary precautions to protect and preserve sources and systems of supplies are taken.

The DPH DWS requires all public water systems serving 250 or more customers or 1,000 or more people to develop an Emergency Contingency Plan. The plan aims to avoid or address emergencies by evaluating vulnerabilities and how to mitigate potentially harmful events. The public water systems are encouraged to address risk prone items and areas where a system may fail and take steps to correct them. The DPH DWS addresses emergencies by communication with and responding to water quality issues at public drinking water systems Emergency Contingency Plans are developed to address emergencies including contamination of water, power emergencies, drought, flooding, and/or failure of any or all critical water system components.

Connecticut Department of Public Health Drinking Water Section Incident Report Forms: Standard Operating Procedure

There is a formal standard operating procedure (SOP) for the DWS Public Water System Security Incident Report Form and the DWS Public Water System Emergency Incident Report Form. The form describes the scope of public water system's distribution and storage. The procedure provides a consistent means for internal notification of staff on emergency and security situations at Public Water Systems. The Incident Report Forms also provide the DWS a means to notify key personnel within the Department of Public Health as well as other partners outside the Department of Public Health. Emergency and security situations at Public Water Systems can be divided into two categories, routine operating emergencies such as pipe breaks, pump malfunctions, acute risk water quality issues and power outages; and non-routine emergencies such as intentional acts of sabotage, chemical spills, floods, hurricanes, windstorms or droughts. The DWS Public Water System Security Incident Report Form and the DWS Public Water System Emergency Incident Report Form have been provided to capture all emergency scenarios. As of 2018, DPH is in the process of updating the report forms and SOP to include key stakeholders and response actions like putting a system on interim measures.

Connecticut Water Supply Planning

All public water systems serving 1,000 or more persons, or 250 or more consumers are required by the DPH to prepare water supply plans in accordance with CGS 25-32d Sections 1a – 5 in order to maximize efficient and effective development of the state's public water supply systems and to promote public health, safety and welfare. The water supply planning process provides for a coordinated approach to long-range water supply planning by addressing water quality and quantity issues from an area-wide perspective. In CT, there are approximately 90 water utilities that fall under this category. These 90 systems must provide updates on the water supply plan every five years and plan their system viability over a five, 20, and 50-year period. The water supply plan also includes an emergency contingency plan section (described above).

Per Public Act 85-535, the State also has a program for Public Water Supply Coordination to maximize efficient and effective development of the state's public water supply systems and to promote public health, safety and welfare. This Act provides for a coordinated approach to long-range water supply planning by addressing water quality and quantity issues from an area-wide perspective. The process is designed to bring together public water system representatives and regional planning organizations to discuss long-range water supply issues and to develop a plan for dealing with those issues. The state has been

divided into three management areas based upon a number of factors, including similarity of water supply problems, proliferation of small water systems, groundwater contamination problems, and over-allocated water resources. The three regions have completed coordinated planning and have water utility coordinating committees (WUCCs) in place to continue region-wide planning.

Connecticut Water Planning Council

The Connecticut Water Planning Council was created by the Energy and Technology Committee of the Connecticut General Assembly in 2001 with representation from four state agencies (DPH, OPM, and the predecessors of DEEP and PURA [DEP and DPUC]). The charge of the WPC is to "identify issues and strategies which bridge the gap between the water supply planning process and water resources management in order that water can be appropriately allocated to balance competing needs while protecting the health, safety and welfare of the people of Connecticut and minimizing adverse economic and environmental effects."

The WPC initially established three Committees to investigate specific issues identified in PA 01-177 and submitted an Issues Work Plan to the Legislature on January 28, 2002. The three committees were the Water Resource Management Committee, the Water Utility Committee, and the Technical Management Committee. Each committee supervised the work of two subcommittees that, together, evaluated 11 issues. The WPC established the Water Planning Council Advisory Group (WPCAG) pursuant to PA 07-4, Section 2(c) in 2007 to assist in researching and analyzing water resources issues. The WPCAG has formed a number of work groups over the years. To date, the WPC and WPCAG have not undertaken any initiatives directly related to water-related natural hazards. However, they have addressed climate change, floods, and droughts through the development of the State Water Plan described below.

State Water Plan

On July 1, 2014, Public Act 14-163, "An Act Concerning the Responsibilities of the Water Planning Council," became effective in the State of Connecticut. The Act directs the Water Planning Council to develop a State Water Plan. In 2015, the WPC formed a Steering Committee with representatives from the WPC and the WPCAG to work with any parties providing services during the development of a State Water Plan. The plan was developed in 2016-2017 with delivery of a draft in June 2017 and submittal to the State Legislature in January 2018.

The State Water Plan includes a climate change analysis completed by the consultant. Results of a "hybrid delta ensemble" (HDe) analysis were presented in the plan. Four scenarios were the focus of the analysis: "warm/dry," "warm/wet," "hot/dry," and "hot/wet." Summary output included a.) monthly time series plots of average temperature and total precipitation, b.) mean monthly temperature and precipitation bar charts, and c.) monthly temperature and precipitation percentile plots. The first summarized the raw output and

illustrates month to month variability, the second provided insight into the seasonality of the projected changes, and the third showed the full range of projected changes including extreme months. Differences across sets of ensemble plots highlighted the variability and uncertainty associated with the climate model projections and potential differences associated with greenhouse gas emissions pathways. For example, the "hot/dry" ensemble projects a mean monthly temperature change of 4.5 ˚C and a mean monthly precipitation change of 10 mm/month, while the "warm/wet" ensemble projects a temperature change of 2.6 ˚C and a precipitation change of 17 mm/month.

The *State Water Plan* notes that there is general consensus in the climate models for a hotter and wetter future. Mean annual temperature changes for the 2080 planning horizon, compared to historical baseline, range from approximately +0.5 ˚C to + 6.5 ˚C. Mean annual precipitation changes range from approximately -5% to +30%, with most of the projections predicting an increase in mean annual precipitation.

All model ensembles project an increase in temperature for all calendar months. Projected temperature changes appear relatively consistent across calendar months and percentile levels for each of the ensemble scenarios. In other words, both summer and winter temperatures are projected to increase by similar amounts; and a similar shift is observed for both extreme cold and extreme hot months. Precipitation projections are more variable, although consistently projecting a generally wetter future for all four scenarios. The largest precipitation increases are projected for the wetter months (higher percentiles), including extreme wet months. The seasonality plots in the plan show that winter and spring precipitation changes are projected to be larger than summer and autumn changes. Drier months are generally projected to remain about the same in terms of both frequency and rainfall level. Small decreases in extreme dry month precipitation were projected for the "hot/dry" scenario.

Implied by the results presented in the State Water Plan is the potential for decreased water availability due to significantly higher temperatures and evapotranspiration losses. However, this dynamic would be offset to a certain extent by increased rainfall. Typical climate forecasts tend to suggest that increased temperatures coupled with increased annual precipitation generally correspond to higher intensity storms (greater flood risk) and longer dry periods in the summer months (more frequent and/or intense droughts).

State Drought Planning

Public water systems that conduct water supply planning have developed drought planning and response plans as part of their emergency contingency plans. Currently, the drought planning and response plans developed by public water systems are either based on the Water Supply Plan Regulations (25-32d-3) or the parameters identified in the 2018 Connecticut Drought Preparedness and Response Plan prepared by the Interagency Drought Work Group. Public Act 17-211 requires that drought planning and response procedures developed by public water systems now be available to the public. As a result, drought planning and response plans will need to be decoupled from emergency contingency plans as they are updated.

For public water systems primarily reliant on reservoir sources, the amount of storage in the reservoir is typically used to define the criteria for each drought stage. Public water

systems primarily reliant on groundwater sources typically use the amount of storage in a primary storage tank over a period of days, or a combination of precipitation and groundwater levels, to define the criteria for each drought stage. The five drought stages in the water supply planning regulations with water conservation goals from the 2018 Connecticut Drought Preparedness and Response Plan include:

- Stage 1: Below Normal Conditions
- Stage 2: Incipient Drought (formerly Drought Advisory)
- Stage 3: Moderate Drought (formerly Drought Watch)
- Stage 4: Severe Drought (formerly Drought Warning)
- Stage 5: Extreme Drought (formerly Drought Emergency)

Utilities have strengthened these goals where appropriate. For example, many utilities identify the 20% reduction goal under Drought Warning to be mandatory, as utilities have found that a better reduction in demand is realized when mandatory conservation measures are enacted. In addition, some utilities also define and utilize an "Alert" cautionary stage to prepare internally for implementation of voluntary and mandatory water conservation measures.

However, some water utilities still utilize the older five-stage method that pre-dates the 2003 Connecticut Drought Preparedness and Response Plan:

- "Alert" which did not include a reduction goal
- "Advisory" with a voluntary 10% reduction goal
- "Emergency Phase I" with a voluntary 15% reduction goal
- "Emergency Phase II" with a voluntary 20% reduction goal
- "Emergency Phase III" with water rationing

Over time, the State expects that these water utilities will shift to the four stages described in the Water Supply Plan Regulations (25-32d-3).

The drought of 2015-2016 raised public awareness of voluntary and mandatory water conservation measures, which are enacted by many utilities to reduce demands during a drought. Typically, such reductions are requested on a percentage basis for each customer. Utilities typically request reductions from all users concurrently. Many utilities have Emergency Contingency Plans that focus water conservation enforcement on high-volume users by recommending more frequent (weekly) meter readings of high-volume customers when conservation measures are requested or mandated, and recommending requiring large customers to file a water conservation "plan of action" with the utility to demonstrate how that customer will reduce its water usage to the requested percentage.

It has long been recognized that water utilities, particularly non-municipal utilities, have limited methods to enforce voluntary and mandatory conservation measures. As noted in the 2018 Connecticut Drought Preparedness and Response Plan, municipal authority may be necessary to locally enforce any measures, but many municipalities do not have local

ordinances in place to ensure proper implementation of water conservation measures during droughts and other emergencies. To that end, a model ordinance was developed to encourage adoption of these policies at the local level, but few municipalities have adopted the model ordinance. The model ordinance includes examples of banned uses, the procedures for announcing the need for conservation measures, and procedures for issuing fines or even curtailment of service. Municipal drought ordinances have been successful in southwest Connecticut. This occurred through municipal interest prior to the drought of 2015-2016 (for example, in Greenwich), as well as during reaction to the drought of 2015-2016 (in Stamford, Darien, and New Canaan).

For reservoir systems, the number of days of supply remaining has been suggested by some water utilities as a method that could potentially be used for determining drought stage criteria in conjunction with the percentage of storage remaining. The number of days of supply remaining should be tied to a relatively predictable number for a water system, such as maximum month average day demand (MMADD) or MMADD from a year with a similar drought. There are several reasons for this suggestion:

- For some storage-rich systems, a Drought Emergency could be issued under the current plans despite the system having more than 300 days of supply remaining, and there is concern that this could result in increased political pressure to not request or mandate emergency water conservation measures.
- The use of MMADD provides a condition where water would be withdrawn faster than would be expected given implementation of conservation measures. As such, it provides a baseline against which users in a system could be encouraged for their conservation efforts. Projecting that a system has 90 days of supply remaining, but then still having 80 days of supply remaining a month later despite minimal rainfall, can provide quantitative reinforcement to a community of the positive effects being developed.
- Furthermore, such a procedure would standardize the triggers between utilities. The volume of reservoir storage between utilities vastly differs, but a method based on the days of supply remaining would provide consistency for state agencies attempting to understand the status of multiple public water systems across the state. For example, CT DPH would immediately understand that a utility entering a Drought Warning was projecting a certain amount of days of supply remaining, regardless of the size of the system or storage available.

Alternatively, a risk-based approach could be used based on historical drought data and the projected frequency of hitting drought triggers. A variety of approaches along this vein are presently under consideration by utilities. Regardless of approach, a delicate balance must be achieved where activating drought triggers can ensure that water is properly conserved, but where activation does not result trigger "fatigue" among end users who become immune to constant announcements of rapidly changing levels of requested and mandatory conservation.

In summary, drought-related capabilities are changing rapidly in Connecticut. The next edition of this Natural Hazard Mitigation Plan will revisit drought capabilities and report on changes to the Drought Preparedness and Response Plan.

Department of Administrative Services

Division of Construction Services

Within the Department of Administrative Services is the Division of Construction Services (DCS). Just prior to the adoption of the 2014 edition of this plan, DCS consolidated services provided by the Bureau of Design and Construction from the former Department of Public Works, the Bureau of School Facilities from the State Department of Education and the Division of Fire and Building Services from the former Department of Public Safety, which includes the Office of the State Building Inspector, the Office of Education and Data Management and the Office of State Fire Marshal.

DAS is the state's primary agency for executive and judicial branches for facility planning, design, and construction-related services; administration of the state school construction grant program; and development, administration and training of state building and fire safety codes.

Office of Design and Construction

The Office of Design and Construction (ODC) implements and administers state capital projects planning and management for the majority of state agencies by working with them in the areas of facilities planning, design, construction, and technical expertise. ODC administers and promotes the following:

- High Performance Building or Sustainable Design guidelines for capital projects;
- Design and implement energy retrofit projects to existing state buildings;
- Review and approve Life Cycle Cost Analysis submissions for all state-funded new buildings, additions or renovations;
- Provides technical expertise in regulatory compliance in the areas of permits, mitigation, hazardous materials (lead, asbestos, PCBs, mold), and soil contamination;
- Administers the State Asbestos Program; and
- Provides geographical information system (GIS) support for state agencies, including State real estate inventories.

DCS – Environmental Planning and GIS Services

The Technical Services Unit within DCS provides important technical reviews and analysis of DCS administered State projects. This unit works closely with other state agencies when they are in the initial planning phases and in particular, siting a new facility. Part of this review involves assessing potential impacts relating to natural hazards, recommendations of alternatives to avoid, minimize or mitigate potential natural hazard impacts, and regulatory approvals (e.g., Flood Management Certification).

DCS offers GIS services to the majority of state agencies, which include custom maps/figures, geographic analysis for relocation of state facilities, assisting in overall statewide facility planning efforts, project pre-planning, and identification of potential environmental impacts for proposed projects. This Unit also maintains a GIS inventory of state land and buildings. In conjunction with DESPP and OPM staff, this unit is also

involved with mapping of critical infrastructure and key resources data and conducting assessments of such resources as they relate to natural or man-made hazards.

Office of School Facilities

The Office of School Facilities (0SF) is responsible for overseeing the local school construction grant program. In addition to design and construction oversight, OSF Code Reviewers and DCS Technical Services Unit evaluate building code and environmental requirements and determine adequacy and appropriateness of proposed new school facility sites. In addition, DDC Technical Services reviews and approves these local school construction projects for consistency with the State's Flood Management Act.

Fire and Building Services: Office of the State Building Inspector, Office of State Fire Marshal, and Office of Education and Data Management

These offices provide the following functions: works with the State Codes and Standards Committee to develop, adopt and administer state building and fire safety codes and the fire prevention code, provide interpretations and clarifications of code language; act upon requests for code modifications and waivers; review construction drawings, issue building permits and inspect large state buildings; train and credential building and fire code officials; inspect and issue operating certificates for boilers and elevators; issue demolition and crane licenses; maintain burn injury and fire incident reporting systems; and provide technical assistance to state agencies, municipal code officials, design and construction professionals, and building owners.

Office of the State Building Inspector (OSBI)

The lead authority for the adoption and administration of building code provisions for wind, flood, and seismic matters is OSBI. The 2014 edition of this plan noted that the 2005 State Building Code was adopted effective December 31, 2005. It also noted that the 2009 amendments to the 2005 State Building Code and the 2005 Connecticut State Fire Safety Code were effective on August 1, 2009; and that additional code amendments were underway. The proposed 2013 amendments adopting the 2009 IRC and the 2011 National Electrical Code were subject to a public hearing held on April 10, 2013. Included in the amendments were passages regarding substantial improvement/damage determinations for structures in floodplains, wind speed design criteria, snow load design criteria, and seismic design criteria. The 2014 edition of this plan reflected the expectation of adoption of the amendments, and the amended code was effective February 28, 2014.

Effective October 1, 2018, the Office of the State Building Inspector (OSBI) amended the previous state building code to adopt the 2015 International Residential Code (IRC). The State Building Inspector, State Fire Marshal, and the Codes and Standards Committee announced on December 29, 2016 the intent to adopt the 2018 State Building and Fire Safety Codes based on the 2015 editions of the ICC and National Fire Protection Association (NFPA) documents. Technical review of these codes was conducted by the Committee's Codes Amendment Subcommittee (CAS) along with DAS staff. This review began January 2017 and was completed with the Codes and Standards Committee's approval for DAS to move both codes to the legislative approval process at its November 8, 2017 meeting. The new codes are:

- 2015 International Building Code
- 2015 International Existing Building Code
- 2015 International Energy Conservation Code
- 2015 International Mechanical Code
- 2015 International Plumbing Code
- 2015 International Residential Code
- 2015 International Fire Code
- 2015 NFPA 101 Life Safety Code
- 2017 NFPA 70 National Electrical Code
- 2009 ANSI A117.1 Accessible and Usable Buildings and Facilities

The adoption of the 2015 IRC made significant changes to the elevation requirement for new construction and substantially improved structures in 100-year floodplains, especially coastal floodplains, which may be different than the standards previously contained in local floodplain zoning regulations or ordinance. The new code requires one foot of freeboard in all A, AE, and VE zones; coastal A zones will be regulated like VE zones where the LimWa is delineated; flood openings will be required in breakaway walls; and essentially facilities must be elevated two feet above the BFE or to the 0.2% annual chance flood elevation.

Office of Policy and Management

Given its role as the Governor's staff agency, OPM plays a central role in providing the information and analysis used in formulating state policy. OPM provides the Governor with an objective view of the issues and with an assessment of available policy alternatives. OPM also assists state agencies and municipalities in implementing policy decisions on behalf of the Governor. Integrating natural hazard mitigation considerations with development, resource management and public investment policies helps minimize the loss of life and property due to natural disasters.

Beyond its broader role in the development and implementation of state policy, OPM is responsible for coordinating drought management activities of state agencies. OPM is a member of the Interagency Drought Working Group and of the Water Planning Council described above. OPM also provides technical support to DEMHS and DEEP in reviewing project applications. A member of OPM is appointed to the CIHMC.

OPM is responsible for the Connecticut Conservation and Development Policies Plan (informally known as the State Plan of Conservation and Development [POCD]) which identifies the state's development, resource management and public investment policies. The POCD identifies the policies that guide the state in (1) addressing human resource needs and development; (2) balancing economic growth with environmental protection and resource conservation concerns; and (3) coordinating the functional planning activities of state agencies to accomplish long-term effectiveness and economies in the expenditure of public funds.[232]

Conservation & Development Policies, the Plan for Connecticut

[232] For a copy of the CT Plan of Conservation and Development and more information please see the following web page: http://www.ct.gov/opm/cwp/view.asp?a=2990&q=383182.

OPM is required to continuously incorporate consideration of natural hazards into the revision of the Conservation & Development Policies Plan as part of the compliance with the Floodplain Management and Hazard Mitigation Act. The Conservation & Development Policies Plan 2013-2018 incorporates this requirement and was adopted in June 2013. The new natural hazards policy in the revised POCD entitled is *"Minimize the potential risks and impacts from natural hazards, such as flooding, high winds and wildfires, when siting infrastructure and developing property. Consider potential impacts of climate change on existing and future development."*

Other relevant policies include:

- Minimize the siting of new infrastructure and development in coastal areas prone to erosion and inundation from sea level rise or storms, encourage the preservation of undeveloped areas into which coastal wetlands can migrate, and undertake any development activities within coastal areas in an environmentally sensitive manner consistent with statutory goals and policies set forth in the Connecticut Coastal Management Act.
- Allow redevelopment and rebuilding of coastal areas consistent with coastal area management principles and regulations and prevailing federal rules and requirements.
- Discourage new development activities within floodway and floodplain areas, manage any unavoidable activities in such areas in an environmentally sensitive manner and in compliance with applicable laws, and seek to prevent the loss of life and property by maintaining existing dikes, channels, dams, and other barriers, or removing such structures where removal would be a more cost-effective option for reducing threats to downstream property.
- Proactively address climate change adaptation strategies to manage the public health and safety risks associated with the potential increased frequency and/or severity of flooding and drought conditions, including impacts to public water supplies, air quality and agriculture/aquaculture production.

The Connecticut Conservation and Development Policies Plan 2018-2023 was issued in 2017 and will be adopted in 2018. Revised policies include:

- Minimize the siting of new infrastructure and development in coastal areas prone to erosion and inundation from sea level rise or storms, as anticipated in sea level change scenarios published by the National Oceanic and Atmospheric Administration, ensure that coastal hazards are accounted for when considering options for the replacement, expansion, or reduction of existing infrastructure under Policy 1.1, and otherwise limit development activities within coastal areas to those consistent with statutory goals and policies set forth in the Connecticut Coastal Management Act.
- Discourage new development activities within areas prone to flooding and coastal erosion, manage any unavoidable activities in such areas in an environmentally sensitive manner and in compliance with applicable laws, and seek to prevent the loss of life and property by maintaining existing dikes, channels, dams, and other barriers, or removing such structures where removal would be a more cost- effective option for reducing threats to downstream property.

Department of Economic and Community Development

State Historic Preservation Office

The State Historic Preservation Office (SHPO) is responsible for overseeing the governmental program of historic preservation for Connecticut's citizens. Originally established as the Connecticut Historical Commission in 1955, the agency was merged into the Commission on Culture & Tourism in 2003 and was renamed the Historic Preservation and Museum Division. The State Historic Preservation Office was again moved in 2011 into the Department of Economic and Community Development providing new opportunities for collaboration on restoration and community revitalization.

SHPO administers a range of federal and state programs that identify, register and protect the buildings, sites, structures, districts and objects that represent Connecticut's cultural heritage. These include administration of the State and National Register of Historic Places programs; regulatory compliance review; technical assistance; grants and tax credit programs supporting historic preservation; the development of a statewide Historic Preservation Plan; and the operation of four state-owned museums.

State Agency Capabilities Status from Prior State Hazard Mitigation Plan

This update of the State's Natural Hazard Mitigation Plan recognizes that some strategies and actions from prior editions of the plan may have been continued several times. Specifically, the timeframes assigned to these State Agency (DEEP and DESPP/DEMHS) action items have typically been "ongoing" or "to be continued." Because these actions are truly ongoing or meant to continue in perpetuity, they have become capabilities. The following ongoing and continued actions are considered DEEP and DESPP/DEMHS capabilities.

Table 3-4. Continued Strategies and Actions from Prior State Hazard Mitigation Plans

Activity #	Activity	Status	Description/Explanation
1.1.2	Provide local ordinance reviews for communities to provide them with an indication as to where existing ordinances require updates or enhancements to current standards.	To Be Continued	In conjunction with the Map Modernization Program, ordinance reviews were completed for communities in Middlesex, Hartford, New London, New Haven and Fairfield Counties. DEEP will continue as needed.
1.1.3	Perform community assistance visits (CAVs) each year to maximize efforts to provide technical guidance and educational materials to communities. This activity is important to promote compliance with NFIP minimum standards and any additional requirements as stated in local ordinances.	To Be Continued	Typically the program completes five CAVs per year. CAVs are normally performed with a community on the following intervals: at least once every five years for a coastal community and at least one visit every ten years for an inland community.

1.1.5	Investigate the feasibility of participating at local events such as home shows, fairs, etc. to provide information to the public regarding the NFIP and impacts from flooding and other natural hazards and ways individuals can help mitigate effects from these hazards. Investigate the feasibility of developing and packaging educational materials for such events.	To Be Continued	Implementation of activity is dependent on available resources and funding. However, such actions were performed post-Irene and post-Sandy by DEEP and DESPP personnel along with FEMA Joint Filed Office staff. Activity will be evaluated annually for possible incorporation into DESPP and DEEP program workplans.
1.1.6	Providing technical assistance to other state agencies, local communities and the public regarding natural hazard mitigation.	To Be Continued	Implementation of activity is dependent on available resources and funding. However, three mitigation courses were presented through the Sandy Joint Field Office which were available to various state agency personnel with respect to floodplain management which included: BCA training, project identification and development, hazard mitigation planning. In addition, CT DESPP and DEEP staff have participated on panels for various climate resiliency and hazard mitigation workshops held within the state.
1.2.1	Develop a series of workshops to take place over the next 3-year period that will include floodplain management 101 (presentation of FEMA floodplain management requirements and the NFIP), overview of elevation certificates, coastal construction standards, effective flood and other natural hazards mitigation measures, floodplain resource protection, and the use of DFIRMs.	Ongoing / Continuous	Typically 1-2 workshops per year focused on floodplain management activities. In addition, DEEP's training program for municipal inland wetlands commissioners and staff includes floodplain management activities as all floodplain soils are wetlands in CT. This program includes approximately 15 seminars per year. Educational workshops are developed and presented on an on-going basis for several natural hazard mitigation topics, especially with regards to floodplain management issues. Also, three mitigation courses were presented through the Sandy Joint Field Office which were available to various state agency personnel with respect to floodplain management which included: BCA training, project identification and development, hazard mitigation planning.
1.2.2 and 2.1.2	Act as a clearinghouse for FEMA-produced educational materials in the area of natural hazards mitigation including flood management and planning; as well as climate	Ongoing / Continuous	This activity is performed on a continuous basis by DEEP flood management staff. Approximately 40 information requests were received and processed per month. Currently, between DEEP Flood Management staff and Land and Water Resources Division

	change and adaptation approaches.		(previously OLISP) Climate Change staff, it is estimated that the State now receives and processes 80+ inquiries per month.
1.2.3	Investigate the modification and update of the CT DEEP's flood management web pages to expand information and educational materials available to the general public.	Ongoing / Continuous	Modifications are dependent on available resources and funding. However, the web pages are intact and available to the public in the current format.
1.3.3	Utilize meetings with other state agencies, including pre-permitting conferences, as opportunities to encourage responsible floodplain management and floodplain development activities, and natural hazards mitigation potential in proposed projects.	Ongoing / Continuous	Approximately two meetings are attended per month by DEEP staff. Strong working relationships have been developed between the flood management program and other LWRD sections and programs. Land and Water Resources Division (previously OLISP) is now linking efforts with climate change initiatives. There has also been a concerted effort by DEEP's Flood Management Section and Land and Water Resources Division (previously OLISP) to coordinate education and outreach efforts where possible for climate change and community resilience and hazard mitigation. Positive working relationships will continue to be pursued with other internal agency divisions and between DEEP and other State agencies.
2.1.1	Utilize meetings with other state agencies, including pre-permitting conferences, as opportunities to encourage responsible floodplain management and floodplain development activities, and natural hazards mitigation potential in proposed projects.	Ongoing / Continuous	This is an on-going activity performed by DEEP flood management staff. Approximately two meetings are attended per month.
2.2.4	Encourage use of EMI's independent study courses which people can access at their computer free-of-charge from EMI.	To Be Continued	This is an activity which is normally done by promoting available courses through DEEP's Flood Management newsletter.
3.1.3	Process technical assistance requests from communities and state agencies to FEMA for technical assistance in the area of project development.	Ongoing / Continuous	When DEEP receives requests from local communities for technical assistance in the area of hazard mitigation project development, it typically refers the request to Region 1 of FEMA for response and possible assistance to the community.
3.2.2	Provide planning workshops through FEMA assistance to	To Be Continued	Three mitigation courses were presented through the Sandy Joint Field Office

	promote planning and enhanced planning activities that communities can utilize to develop comprehensive hazard mitigation plans.		which were available to various state agency personnel with respect to floodplain management which included: BCA training, project identification and development, hazard mitigation planning. This will continue when funding is available.
3.2.3	Encourage state agencies to perform research and planning activities in the area of natural hazards mitigation for their facilities and operations.	Ongoing / Continuous	An effort continues on the state level to continually improve communication between state agencies with regards to hazard mitigation. See comments regarding LWRD partnerships with Land and Water Resources Division (previously OLISP), DESPP/DEMHS, and others.
3.2.6	Develop a communication process including webpage development and reminder notifications of potential grant opportunities to encourage continued project planning tasks by state agencies and communities to develop highly competitive and effective mitigation projects.	To Be Continued	Done on an annual basis (PDM, FMA) or when grant funding becomes available (HMGP).

3.2.3 Connecticut Legislative and Executive Programs and State-Level Committees and Task Forces

There are a number of high-level programs and inter-agency planning groups that are associated with natural hazard mitigation within Connecticut. While some groups have a direct role, other inter-agency planning groups are associated with natural hazard mitigation through their policies or plans in which they are charged with developing and implementing. The following is a presentation of the inter-agency planning groups associated with natural hazard mitigation in Connecticut.

Connecticut Interagency Hazard Mitigation Committee (CIHMC)

As a result of a Federal disaster declaration in July 1989, the State of Connecticut formed the Hazard Mitigation Grant Review Committee (HMGRC). The purpose and goal of the HMGRC was to oversee the new post-disaster Hazard Mitigation Grant Program (HMGP) that became law with the passage of the Stafford Act in 1988.

The HMGRC consisted of representatives of the DEP (now DEEP), NWS, Connecticut Department of Education (DOE), Connecticut Office of Emergency Management (OEM, currently DEMHS), Connecticut OPM, Natural Resources and Conservation Service (NRCS), Small Business Administration (SBA), and FEMA. The Department of Transportation (DOT) and the Connecticut Department of the Military joined the HMGRC

in the late 1990s. A private group, the Hartford Financial Services Group (Hartford Group) also joined the HMGRC to give private companies representation on the Committee.

During the 1990s the HMGRC met quarterly after each disaster and met annually in non-disaster years to review hazard mitigation project applications. The HMGRC began reviewing and approving applications for the newly developed Flood Mitigation Assistance (FMA) grant program in 1998.

The HMGRC was renamed to the Connecticut Interagency Hazard Mitigation Committee (CIHMC) in 1998. The Connecticut Interagency Hazard Mitigation Committee continued the duties of discussing and overseeing mitigation-related activities and issues within the State. Due to the group's name change, the CIHMC developed a revised MOU that was signed by the top agency official of each participating state and federal agency in 2001. The five participating state agencies and divisions at this time are DEEP, DEMHS, OPM, Department of Transportation (DOT), and the Office of the State Building Inspector (OSBI). The one participating federal agency is the NRCS. In addition, one private sector representative from the Hartford Life Insurance Company sits on the Committee.

Prioritization of Local Mitigation Funding

The State of Connecticut's CIHMC reviews and approves projects submitted by eligible applicants for formal submission to FEMA under the State's grant application for FEMA grants programs FMA, PDM, and HMGP. The CIHMC meets annually, but may meet more frequently if necessary, to review and approve potential FEMA grant funded projects. Although the final responsibility for selection of projects remains with the SHMO, the CIHMC advises the SHMO. It is the responsibility of the SHMO to reconvene or re-staff the committee as necessary for future grant awards.

The CIHMC ranks potential projects for submission to FEMA. Projects must have a benefit to cost ratio of one-to-one (1:1) or greater for each project application. Projects must solve the problem being addressed. HMGP, FMA and PDM funding may not be used as a substitute or a cost share for any other federally funded projects. In addition, sub-grantees may secure funding from other state and local programs to provide their required cost share for a particular project.

Proposed sub-applicant and state projects are evaluated and selected for funding based on the degree to which they address the following stated criteria put forth in the State's annual PDM and FMA grant guidance documents, such as how a project will:

- Utilize the best strategy to ensure the success of the project goal;
- Allocate sufficient staff and resources for the successful implementation of the proposed mitigation project;
- Demonstrate that the proposed mitigation activity reduces the overall risks to the general population and structures;
- Result in a long-term solution to a flooding problem with minimal maintenance required;
- Provide a benefit to the general population of an area (ex. culvert upgrade, storm damage system upgrade, public education);
- Protect critical facilities;

- Leverage Federal/State/tribal/local/private partnerships to enhance the outcome of the proposed activity;
- Promote measures that prevent future construction or development in hazard-prone areas;
- Promote stormwater management practices according to CGS Section 25-68h;
- Are located in a community listed on the Public Investment Community Index with a PIC rank of 1-42 (OPM website);
- Have a multi-objective mitigation purpose;
- Are consistent with the State Natural Hazard Mitigation Plan; and
- Are consistent with Local or Regional Hazard Mitigation Plans.

Proposed projects are given a score base on several factors such as the ones stated above. Specific evaluation criteria may be modified for a particular grant year in response to FEMA stated requirements as set forth in FEMA grant guidance document for a particular grant and fiscal year, or based upon state mitigation grant priorities for any given year.

Ranking: The CIHMC will rank and assign priorities for funding to all eligible projects. The CIHMC has developed a ranking form (shown below) which integrates the top strategies and goals of the State Natural Hazard Mitigation Plan and in accordance with the criteria in Section 4, 4.2 of the Administrative Plan and 44 CFR Section 206.434 (c).

List of Projects: An ongoing list of potential HMGP projects shall be identified and maintained by DESPP for various types of mitigation projects. This shall include those applications not funded in prior rounds of funding.

Ranking Form							
The extent to which the project ranks:	**0%**	**20%**	**40%**	**60%**	**80%**	**100%**	
Does the proposed measure prevent losses to a NFIP insurable building?							
Does the proposed measure prevent losses to a Severe Repetitive Loss (5pts) or Repetitive Loss Property (3pts)?							
Does the measure directly mitigate the effects of a frequent natural disaster such as flooding, high winds or ice and snow?							
Will the measure result in a long-term solution to natural disasters which require min.							
Does the proposed measure provide benefits to a large population of an area (e.g. Culvert upgrade, Bridge Replacement, Public							
Does the project represent an innovative approach which can serve as a pilot project in another jurisdiction?							

Project Type: Acquisition (5pts) Elevation (3pts) Drainage/ Other Infrastructure (4 pts) 5% Initiative (1 pt) Planning (5 pts)							
Will the measure eliminate future vulnerability to a common natural hazard (e.g. land acquisition, elevation of buildings, hurricane							
Does the project protect a critical facility such as a police or fire station?							
Is the proposed measure located in a community that has recently or repeatedly suffered damages from natural disasters?							
Totals							
							Grand Total Score

Connecticut GIS State Coordination (OPM)

OPM is the lead agency for GIS coordination within the state and with other states; it is the successor to the CT GIS Council. OPM is responsible for coordinating, within available appropriations, a GIS capacity for the state, regional planning agencies, municipalities, and others as needed. OPM guides and assists state and local officials involved in transportation, economic development, land use planning, environmental, cultural, and natural resource management, public service delivery, and other areas as necessary.

Since natural hazard mitigation is intrinsically linked to location and geography, the following are highlights of the past GIS Council efforts and are anticipated to continue under the direction of OPM:

Critical Infrastructure and Key Resources (CI/KR) Subcommittee

The purpose of this subcommittee is to be knowledgeable of all available CI/KR GIS data that exists at the federal, state, and local level within the state; and to develop data inventories and data development and maintenance protocols and procedures. Beginning in 2012 and through 2013, the CI/KR Subcommittee is working on a draft CI/KR Data Standards and Guidelines.

Critical infrastructure includes those assets, systems, networks, and functions – physical or virtual – that are vital to Connecticut, the region, and the country so that their incapacitation or destruction would have a debilitating impact on security, economic security, public health or safety, or any combination. Key resources are publicly or privately controlled resources essential to minimal operation of the government and economy.

The federal government has organized CI/KR into 16 sectors that together provide essential functions and services that support various aspects of State and local government, private entities, and the general public. For purposes of identifying and organizing Connecticut's CI/KR GIS data, the subcommittee has adopted the U.S. DHS data classification and taxonomy. The following are the 16 sectors which GIS data will be collected and organized:

- Food and Agriculture
- Financial Services
- Chemical
- Commercial Facilities
- Communications
- Critical Manufacturing
- Dams
- Defense Industrial Base
- Emergency Services
- Energy
- Government Facilities
- Healthcare and Public Health
- Information Technology
- Nuclear Reactors, Materials and Waste
- Transportation Systems
- Water Systems and Wastewater Pollution Control Facility (WPCF) Systems

It should be noted that within DEMHS is a Critical Infrastructure Unit that assesses, evaluates, and inventories CI/KR information, but not in a GIS-based database. This Unit acknowledges DHS's definitions and criteria for what constitutes CI/KR.

Recently, for purposes of establishing a "mircogrid" grant and loan pilot program, Public Act 12-148 defined "critical facility" as, "any hospital, police station, fire station, water treatment plant, water pollution control facilities (WPCFs), public shelter or correctional facility, any commercial area of a municipality, a municipal center, as identified by the chief elected official of any municipality, or any other facility or area identified by the Department of Energy and Environmental Protection as critical…." For purposes of this plan, for developing mitigation strategies and other statewide programs/projects going forward, the more inclusive definitions and understandings of what constitutes CI/KR will take precedence over the above definition.

Storm Response and Recovery Assessment Group

The GIS Council on November 17, 2011, established a Storm Response and Recovery Assessment Group ("Assessment Group"). The Assessment Group's purpose was to focus on various aspects of how GIS was used for during both Tropical Storm Irene and the October

2011 Winter Storm Alfred (pre-storm, storm, and post-storm) response and recovery efforts at the local, regional, utility, state, and federal levels. The Assessment Group's effort ran parallel to and in some cases went deeper into the findings of what the Governor's Two Storm Panel had identified.

During both storms' response and recovery efforts, the use of GIS served as an important decision making tool for those who used it. While there was and is general understanding of GIS and its benefit to emergency management, in the aftermath of both major natural events, anecdotal evidence began to surface about missed opportunities to utilize GIS in an effective and efficient way. In particular, issues surrounding data sharing and coordination between municipalities and utility companies, as well as other GIS issues, became topics on the CT GIS List Serv. The Assessment Group created and sent out a questionnaire to the Connecticut GIS community to solicit more detailed information about what are barriers to success and recommendations for improvement.

In March 2012, the Assessment Group presented and the GIS Council approved the Findings Report.[233] Within the Findings Report are specific recommendations that relate to natural hazard mitigation planning and response.

The Adaptation Subcommittee of the Governor's Steering Committee on Climate Change (GSC)

Since natural hazards such as extreme storm events and flooding are expected to increase in frequency and magnitude with climate change, adaptation planning will be important to mitigate the effects of these hazards. The Adaptation Subcommittee of the Governor's Steering Committee on Climate Change (GSC) is charged with the assessment of the impacts of climate change on Connecticut infrastructure, natural resources and ecological habitats, public health, and agriculture; and recommendation of adaptation strategies in accordance with the requirements of Public Act 08-98.

The Adaptation Subcommittee prepared the report "The Impacts of Climate Change on Connecticut Agriculture, Infrastructure, Natural Resources and Public Health" in 2010 as required by the Act. The report was organized into the four categories defined by the Act: Agriculture, Infrastructure, Natural Resources, and Ecological Habitats and Public Health

Most of the agricultural features were found to be highly impacted by climate change, and most of these impacts were negative. The top five most imperiled agricultural planning areas or features in Connecticut were maple syrup, dairy, warm weather produce, shellfish and apple and pear production. There were opportunities for production expansion, including biofuel crops and witch hazel and grapes, with the future climate, as well as benefits identified for all agricultural planning areas.

The infrastructure planning areas to be the most impacted by climate change were coastal flood control and protection, dams and levees, stormwater, transportation and facilities and buildings. Infrastructure planning areas were most affected by changes in precipitation and sea level rise, which could cause substantial structural and economic damage.

[233] http://ct.gov/gis/cwp/view.asp?a=2858&q=501796

The ecological habitats at the highest risk from climate change may be Cold Water Streams, Tidal Marsh, Open Water Marine, Beaches and Dunes, Freshwater Wetlands, Offshore Islands, Major Rivers, and Forested Swamps. These habitat types are broadly distributed from Long Island Sound and the coast to the upland watersheds and forests across Connecticut. The degree of impact will vary but, likely changes include conversion of rare habitat types (e.g., cold water to warm water streams, tidal marsh and offshore islands to submerged lands), loss and/or replacement of critical species dependent on select habitats, and the increased susceptibility of habitats to other on-going threats (e.g., fragmentation, degradation and loss due to irresponsible land use management, establishment of invasive species).

Relative to public health, climate change will have the most impact on public health infrastructure, environmental justice communities, air quality and extreme heat ailments and vector-borne diseases. Climate change will impact public health infrastructure including hospitals, health departments, emergency medical services, private practices and shelters, due to direct impacts from extreme weather events, and increased use of resources to treat and shelter victims.

With the conclusion of the climate change impacts assessment phase, the Adaptation Subcommittee next developed recommended adaptation strategies for the most impacted features of Connecticut agriculture, infrastructure, natural resources and public health. The subcommittee's second report, "Connecticut Climate Change Preparedness Plan" (2011) is a response to the legislative requirement that the Adaptation Subcommittee identify strategies for adapting to the impacts of a changing climate in Connecticut. In this report there are a number of strategies for addressing impacts to agriculture, infrastructure, natural resources, and public health.

More information on the Adaptation Subcommittee, including copies of the above reports is posted DEEP website.[234]

Two Storm Panel

Governor Daniel P. Malloy announced the formation of The State Team Organized for the Review of Management ("STORM") of Tropical Storm Irene on September 13, 2011. The eight member Panel was charged with the following mission, "a broad, objective evaluation reviewing how Irene was handled in the state both in preparation and recovery, identify areas that can be improved upon and, most importantly, make recommendations for future disaster preparedness and response." Following the October snow storm Alfred, the Governor expanded the work of the Panel, renamed it "The Two Storm Panel," and directed it to report its findings to him by the first week of January, 2012.

The Two Storm Panel first reviewed the State Emergency Framework as well as several representative municipal emergency plans in order to benchmark state and local emergency planning. In addition, the Panel conducted eight days of hearings with over 100 witnesses providing written and/or oral testimony to the Panel. Panel hearings were also carried on CT-N so that they could be viewed by the public. In addition to the public hearings, many

[234] www.ct.gov/deep/climatechange

members of the public provided written comments to the Panel that were also considered in the preparation of the panel's report.

PURA docket 11-09-09 is the Report of the Two Storm Panel. The report acknowledged that "Tropical Storm Irene and the 'October Nor'easter' (Winter Storm Alfred) had tested Connecticut's emergency resources in ways that they had not been tested in more than 25 years. In that intervening 25 years, Connecticut's infrastructure had increased significantly, while the manpower associated with the maintenance and repair of that infrastructure had decreased significantly."

The Report of the Two Storm Panel included 82 individual recommendations that have been shaping legislative initiatives and inter-agency policies since 2012, helping to increase capabilities in Connecticut. Some of these policies have already helped, as noted during Hurricane Sandy in October 2012. Although not all of the 82 recommendations can be listed here, those listed in the Executive Summary include:

- The need to develop reasonable performance standards for utility recovery and restoration after storms, and link recoverable costs to these standards;
- Revisions to State engineering standards to accommodate predicted increases in storm surge along coastal areas;
- The need for improved worst-case planning and staffing by the State's utilities;
- Connecticut's infrastructure needs to be better hardened to withstand natural disasters, and such work should begin as quickly as possible;
- The use of microgrids and other emerging technologies should be considered as potential methods for mitigation of impacts to infrastructure;
- Increased collaboration between municipalities, State resources, and electric utilities and telecommunications service providers with respect to tree trimming;
- Increased communication and planning between municipalities and utilities before a storm or disaster is imminent;
- Increased communication between labor and management in all utilities is strongly recommended;
- Additional emergency response training and exercises for municipalities, utilities and the State;
- A review of sheltering needs to ensure that at-risk populations can be served if sheltering is required for a significant length of time;
- The use of geographical information systems (GIS) should be better leveraged for both emergency planning and response purposes;
- The Public Utilities Regulatory Authority and the Connecticut Siting Council should be provided with additional enforcement resources;
- A Center for Research should be developed to study and make recommendations on storm hazard mitigation and power system resiliency; and
- Standards should be more clearly developed for backup power requirements and communication infrastructure hardening for wireless telecommunications.

Shoreline Preservation Task Force

In February 2012, a bipartisan task force was formed to study and make legislative recommendations on storm impacts on shoreline homeowners and businesses. The task

force was charged with looking at the impact of climate change on efforts to preserve shoreline communities. The task force was asked to make recommendations for legislation to:

- Assist those rebuilding and recovering from the 2011 storms (primarily Tropical Storm Irene, but including October storm Alfred);
- Develop new policies to address the needs of shoreline and waterfront residents and businesses regarding shoreline erosion, rising sea levels, and future storm planning; and
- Ensure that these policies complement existing laws regarding emergency communications between towns and the state, utility company preparedness, response and accountability, and insurance issues.

The task force held public hearings on July 9, 2012 in Branford; July 23, 2012 in Fairfield; and August 6, 2012 in Groton. The task force issued a wide range of recommendations regarding the DEEP regulatory programs, coastal structures, municipalities and land use, insurance and real estate, climate change and sea level rise, and education, among other things. It is expected that some of these recommendations will be addressed in the coming years, helping to build capabilities at the state and municipal levels to increase hazard mitigation. Public Act 12-101 in 2012 (described in Section 3.2.1.3) was influenced by the Shoreline Preservation Task Force findings.

It is important to note that the Shoreline Preservation Task Force completed the majority of its work prior to Hurricane Sandy. The occurrence of storm Sandy only underscored the importance of the work, but recovery efforts (described below in Section 3.2.3.7) have largely attracted more attention in the last year.

The State Vegetation Management Task Force

On April 24, 2012, the State Vegetation Management Task Force held its inaugural meeting. The Mission of the Task Force is to develop standards for road side tree care in Connecticut, vegetation management practices and schedules for utility rights of way, tree/right place standards, and standards for tree wardens, municipal tree inventories and pruning schedules. This Task Force has been formed by the Commissioner of DEEP, as called for in the report of the Governor's Two Storm Panel. The goal is to develop consensus recommendations to DEEP within the stated mission.

State-Wide Long-Term Recovery Committee

Established as part of Governor Malloy's Emergency Planning and Preparedness Initiative from 2012, the State of Connecticut identified the Department of Economic and Community Development (DECD) and Department of Insurance (DOI) to serve as co-chairs of the State's Long-term Recovery Committee. The purpose of the committee is to provide support for local and tribal governments, non-governmental organizations and the private sector, which will enable them to recover from significant incidents. This is accomplished by facilitating problem solving, improving access to resources and fostering coordination among State and Federal agencies and other stakeholders.

As part of this effort, the Long Term Recovery Committee is establishing working groups or Recovery Support Functions (RSFs) to address specific needs, which is consistent with those established at the federal level under the National Disaster Recovery Framework (NDRF). The NDRF is a guide that defines roles and responsibilities; promotes establishment of post-disaster organizations to manage recovery; promotes a deliberate, transparent process that provides well-coordinated support to the Community; and offers strong, focused recovery leadership at the State and Tribal level, supported by strong Federal recovery leadership.

Members of the RSF's consist of public, private, and non-profit organizations that work together to address the unmet needs of a community. The RSF's that have currently been established include:

- Individual Assistance, which includes a housing taskforce and volunteer organizations active in disasters;
- Natural and Cultural Resources (discussed above in Section 3.2.2.2 under the discussion related to Land and Water Resources Division (previously OLISP) capabilities);
- Economics; and
- Community Planning and Capacity Building.

The RSFs are designed to take advantage of private and public agencies' existing resources and fully integrate community planning, public works, economic development, housing, health and social services expertise and resources of other organizations. Through the RSFs, relevant stakeholders and experts are brought together during the pre-disaster planning stage and when activated post-disaster, and are used to identify and resolve recovery challenges that are not being met at the local level. Together, these RSFs help facilitate local stakeholder participation and promote intergovernmental and public-private partnerships, which ultimately support recovery and resiliency.

It is notable that the NDRF is being launched on a state level in Connecticut through the RSFs for the first time ever in the United States. Connecticut is the first state to ever partake in this type of effort.

Connecticut Interagency Debris Management Task Force

In the event of a declared state of Civil Preparedness Emergency, the Governor will authorize the Interagency Debris Management Task Force (IDMTF). Members of the task force will participate in all preparedness activities, serve as operational representatives when debris management and monitoring activities are undertaken, and assign work for the State Debris Management and Monitoring Contractors by developing task orders. The core membership of the IDMTF includes: Department of Emergency Services and Public Protection (Division of Emergency Management and Homeland Security), Department of Energy and Environmental Protection, Department of Administrative Services, Department of Transportation, and the state debris contractors. Connecticut National Guard, Northeast Utilities, and United Illuminating will provide continuing participation

throughout the event. Other agencies and organizations that may be requested to participate on the task force as needed.[235]

Connecticut Green Bank

The Connecticut Green Bank is the nation's first green bank. Established by the Connecticut General Assembly on July 1, 2011 as a part of Public Act 11-80, Connecticut Green Bank supports the Governor's and Legislature's energy strategy to achieve cleaner, less expensive, and more reliable sources of energy while creating jobs and supporting local economic development. The Connecticut Green Bank evolved from the Connecticut Clean Energy Fund (CCEF) and the Clean Energy Finance and Investment Authority (CEFIA), which was given a broader mandate in 2011 to become the Connecticut Green Bank. The powers of the Connecticut Green Bank are vested in and exercised by the Board of Directors, which is governed through Section 16-245(n) of the Connecticut General Statutes.[236]

The Connecticut Green Bank works with private-sector investors to create low-cost, long-term sustainable financing in the residential (single and multifamily), commercial, industrial, institutional and infrastructure sectors. Since its inception, the Connecticut Green Bank and its private investment partners have deployed over a $1 billion in capital for clean energy projects across the state. Projects recorded through fiscal year 2016 show that for every $1 of public funds committed by the Green Bank that an additional $6 in private investment occurred in the economy.

State Agencies Fostering Resilience

State Agencies Fostering Resilience (SAFR) was created by Executive Order No. 50, signed by Governor Dannel P. Malloy on October 26, 2015. SAFR is a permanent working group committed to strengthening the state's resiliency to extreme weather events including hurricanes, flooding, extreme heat, and slow onset events such as sea-level rise. The SAFR Council is comprised of 12 members, appointed by the Governor, including agency heads and experts. The SAFR Council is charged with authoring a Statewide Resilience Roadmap using climate impact research and assisting Connecticut's Office of Policy and Management in creating state policies that incorporate forward looking risk analysis. They also assist municipalities in incorporating climate analysis into their coastal resilience plans.[237]

3.2.4 Interstate Programs

There are a number of interstate groups and compacts that are associated with natural hazard mitigation within Connecticut.

[235]http://www.ct.gov/deep/lib/deep/waste_management_and_disposal/debris_management/conceptofoperationsplanfordisasterdebrismanagement.pdf
[236] http://www.ctgreenbank.com/
[237] http://portal.ct.gov/office-of-the-governor/press-room/press-releases/2015/10-2015/gov-malloy-permanently-establishes-state-council-on-storm-resiliency

National Disaster Resilience Program

The U.S. Department of Housing and Urban Development (HUD) and the Rockefeller Foundation funded a $1 billion design competition, the National Disaster Resilience Competition (NDRC). Through NDRC, HUD provided funding for resilient housing and infrastructure projects to states and communities that were impacted by major disasters between 2011 and 2013. Connecticut was one of 13 winners, receiving $54,277,359 to support a pilot program in Bridgeport that is part of the broader Connecticut Connections Coastal Resilience Plan. The Coastal Resilience Plan is focused on reconnecting and protecting economically-isolated coastal neighborhoods through investments in mixed green and gray infrastructure that protect against flooding while strengthening their connectivity to existing transportation nodes.

United States Climate Alliance

In response to the U.S. federal government's decision to withdraw the United States from the Paris Agreement on climate change, the United States Climate Alliance was created on June 1st, 2017, with Connecticut joining on June 2nd. This bi-partisan coalition of states is committed to the goal of reducing greenhouse gas emissions consistent with the goals of the Paris Agreement: a 26-28% reduction in greenhouse gas emissions below 2005 levels by 2025. They published the first U.S. Climate Alliance Annual Report in 2017, which takes stock of the progress being making towards achieving this objective and discusses future initiatives that will help meet or exceed their goals.[238]

Land Use Law Center at Pace University

The Center provides research, training, technical assistance, support, and strategic planning services to communities and individuals. Working with trained law students, the Center quickly, affordably, and effectively develops techniques to remedy nearly all types of land use problems that afflict urban, suburban, and rural communities. Some topics they cover include smart growth, urban revitalization, climate change mitigation, local wind and solar energy, and community resiliency. For example, in 2015 the Land Use Law Center worked with the Town of Derby, CT to improve public engagement during the creation of a plan for conservation and development.[239]

New England Resilience and Transition Network

The New England Resilience & Transition (NERT) Network is a network connecting grassroots groups working on community resilience, Transition, new economy, economic and environmental justice initiatives, permaculture, renewable local energy, local food, time banking, and sustainability projects to foster an equitable, inclusive, and thriving world for all.[240]

[238] https://www.usclimatealliance.org/
[239] http://www.law.pace.edu/our-programs
[240] https://nertnetwork.org/

Thames River and Connecticut River Flood Control Compacts

There are two active interstate flood control commissions; the Thames River Valley Flood Control Compact (1957 TRVFCC), and the Connecticut River Valley Flood Control Compact (CRVFCC 1953) (http://crvfcc.org/). These compacts were enacted to provide the authority to create detention reservoirs. The creation of each of the compacts required an act of Congress and legislative authorization from each of the signatory states. The CRVFCC is composed of three representatives each, from Connecticut, Massachusetts, New Hampshire, and Vermont, while the TRVFCC has three representatives from Connecticut and three from Massachusetts.

Representatives of the CRVFCC are chosen by their respective governors, and in Connecticut, are appointed for six-year terms. The CRVFCC requires all states to share in the cost of the office located in Massachusetts, and to share in reimbursements of property tax losses to the 21 communities in which the reservoirs are located. The office fees and tax reimbursements are fixed in the Compact according to proportional benefits. Because Connecticut and Massachusetts benefit most from the upstream dams, they pay more relative to the other states. Although tax reimbursement proportions are fixed, while property assessments change, correspondingly yearly payments change.

The costs of building the 16 dams and 16 local protection projects works along the Connecticut River and its tributaries have been principally borne by the Federal government.

Similar to the CRVFCC, the TRVFCC assesses each state for the tax losses associated with the flood control benefits provided by upstream communities. DEEP pays for the two flood control commission assessments on behalf of the state through a dedicated budget line item.

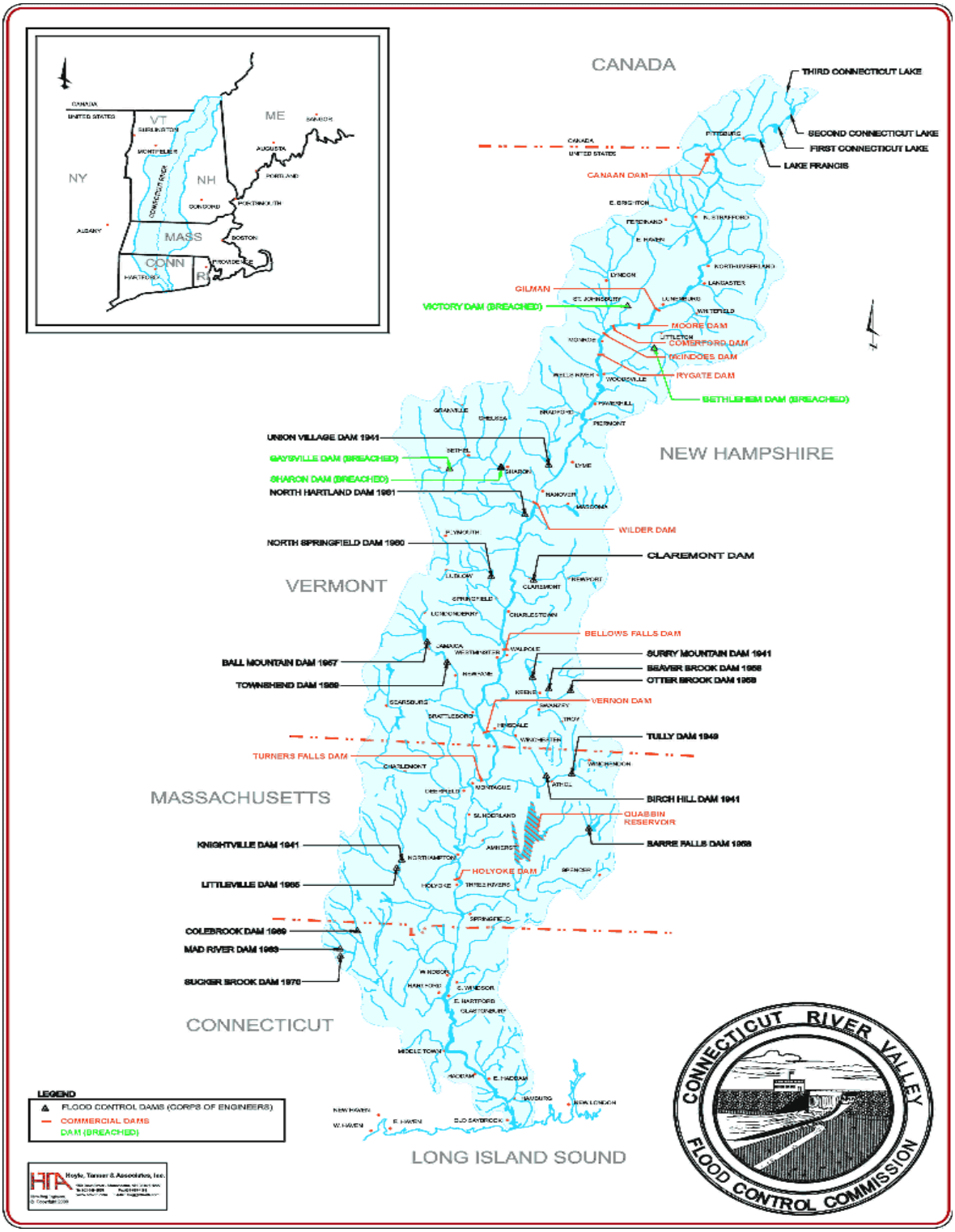

Figure 3-1 and Figure 3-2 show the land areas associated with both of these flood control compacts.

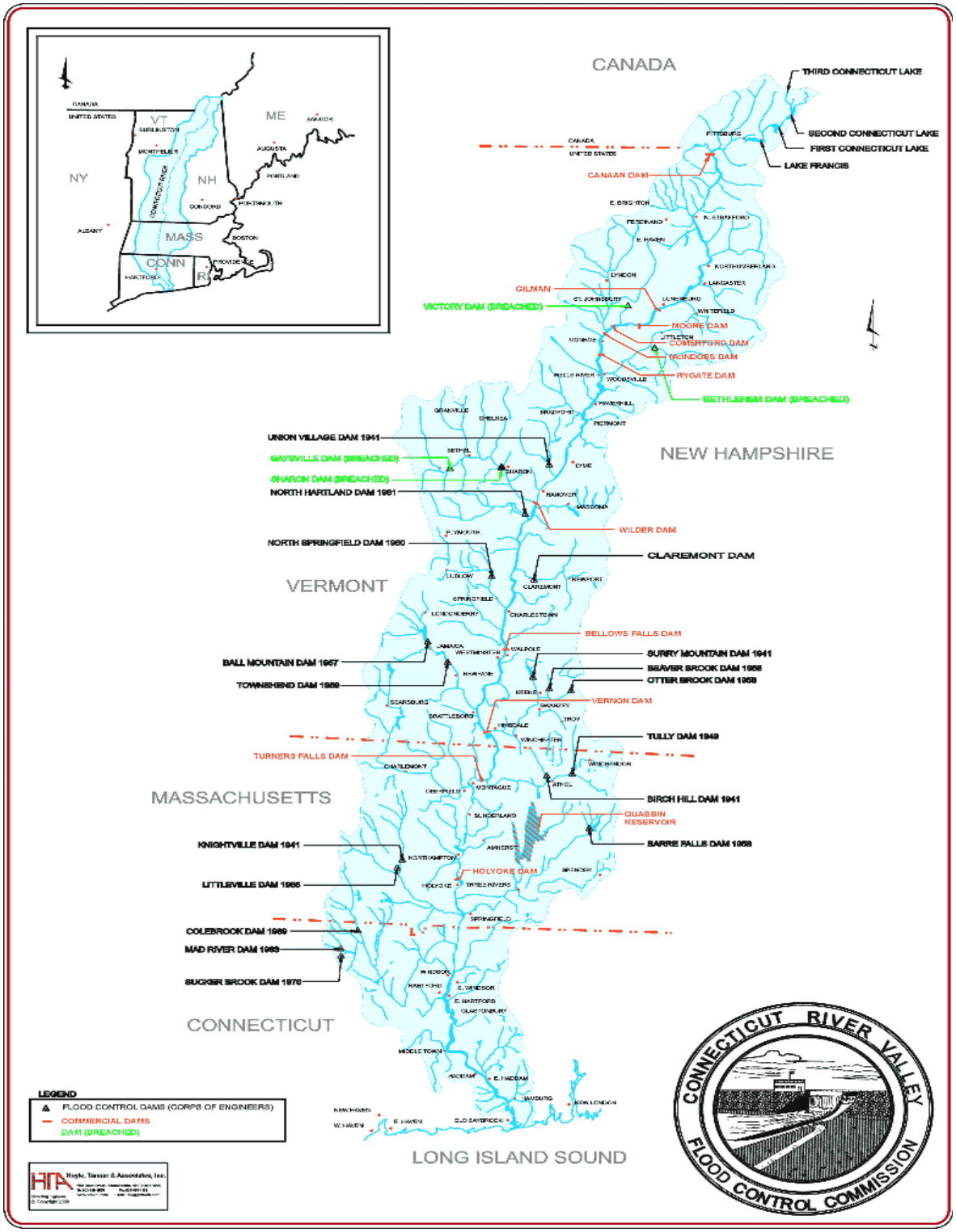

Figure 3-1: Map of Connecticut River Flood Control Facilities

Source CRVFCC website: www.crvfcc.org/damprojects.htm

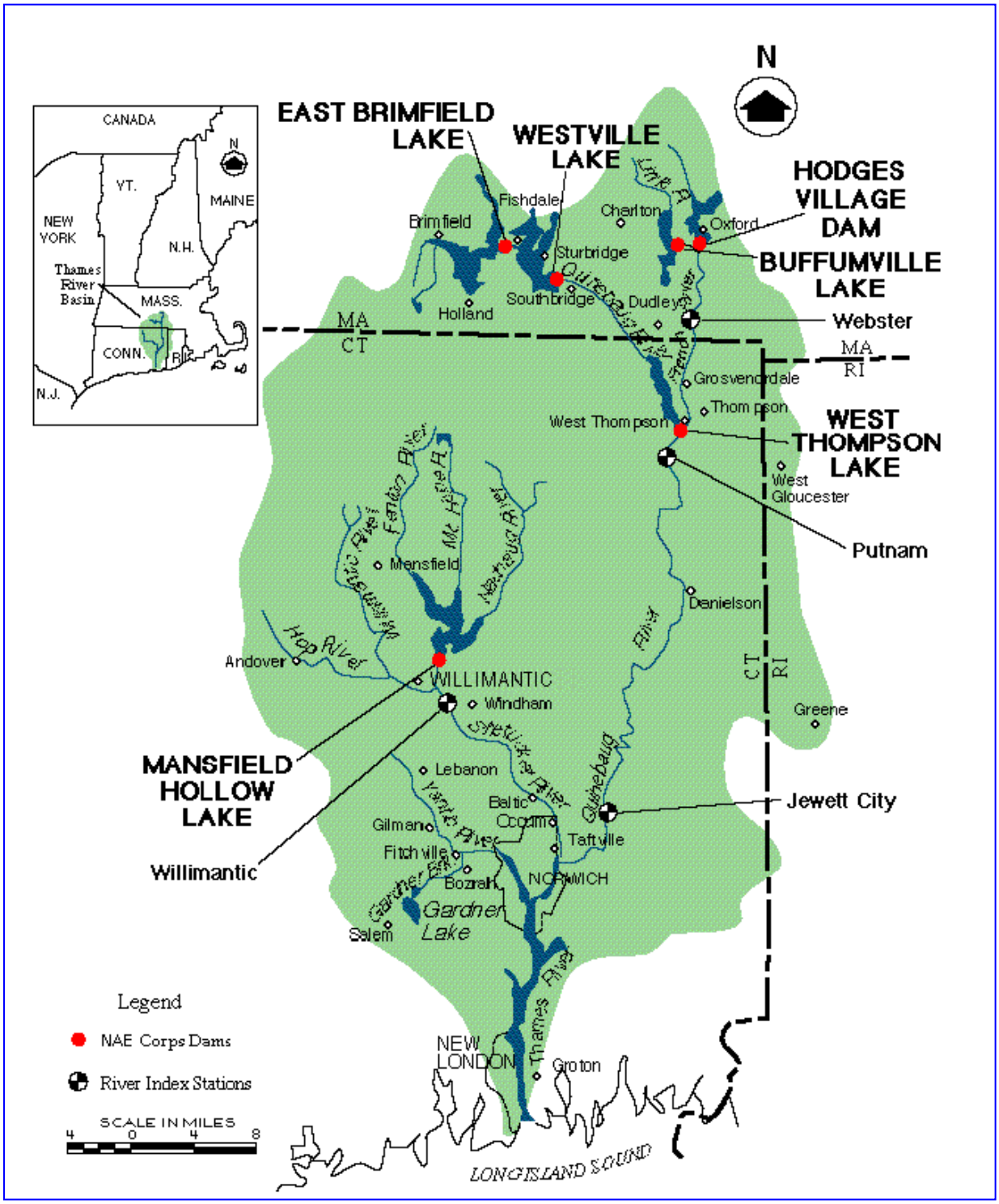

Figure 3-2: Map of Thames River Basin[241]

[241] Source: CT DEMHS.

The National Weather Service and the State Severe Weather Warning System

NWS offices in Albany, NY, Upton, NY (on Long Island), and Taunton, MA share Forecast and warning operations for Connecticut (see Figure 3-3 for NWS Connecticut county responsibility). Connecticut's eight counties are sub-divided into 13 weather forecast zones to account for topography and climate variation across the State. See Figure 3-4 for a depiction of Connecticut forecast zones.

Each NWS office maintains sophisticated computer forecasting technology and Doppler radar for continuous weather and radar surveillance of Connecticut. NWS offices collaborate on forecast and warning services for Connecticut. Furthermore, each NWS office enlists the aid of volunteer severe weather observers through Skywarn training across the State.

Four NOAA Weather Radio All Hazards (NWRAH) transmitters are located in Connecticut. These transmitters are located in Cornwall, Meriden, Hartford, and New London. The Cornwall transmitter serves Litchfield County and is controlled by the NWS office in Albany, New York. In addition, NWRAH transmitters in neighboring states provide forecast and warning information for adjacent Connecticut municipalities. Computer-generated depictions of NWRAH coverage in Connecticut are provided in Figure 3-5. NWRAH is the official voice of the NWS and delivers weather forecasts, watches and warnings 24 hours per day, and as requested by emergency management officials other hazardous awareness information such as Civil Emergency Messages.

As a direct result of the 1989 western Connecticut tornado outbreak, the State purchased 300 advanced technology Specific Area Message Encoder (SAME) radios in 1992 and 1994. These SAME radios allow the NWS to issue watches and warnings to specific counties in Connecticut when severe weather threatens the State. In 2006 the U.S. Department of Homeland Security purchased 92,000 NWRAHs and provided one to every public school in the United States. In 2007-2008 the U.S. Department of Homeland Security purchased additional NWRAH's for all private schools in the United States.

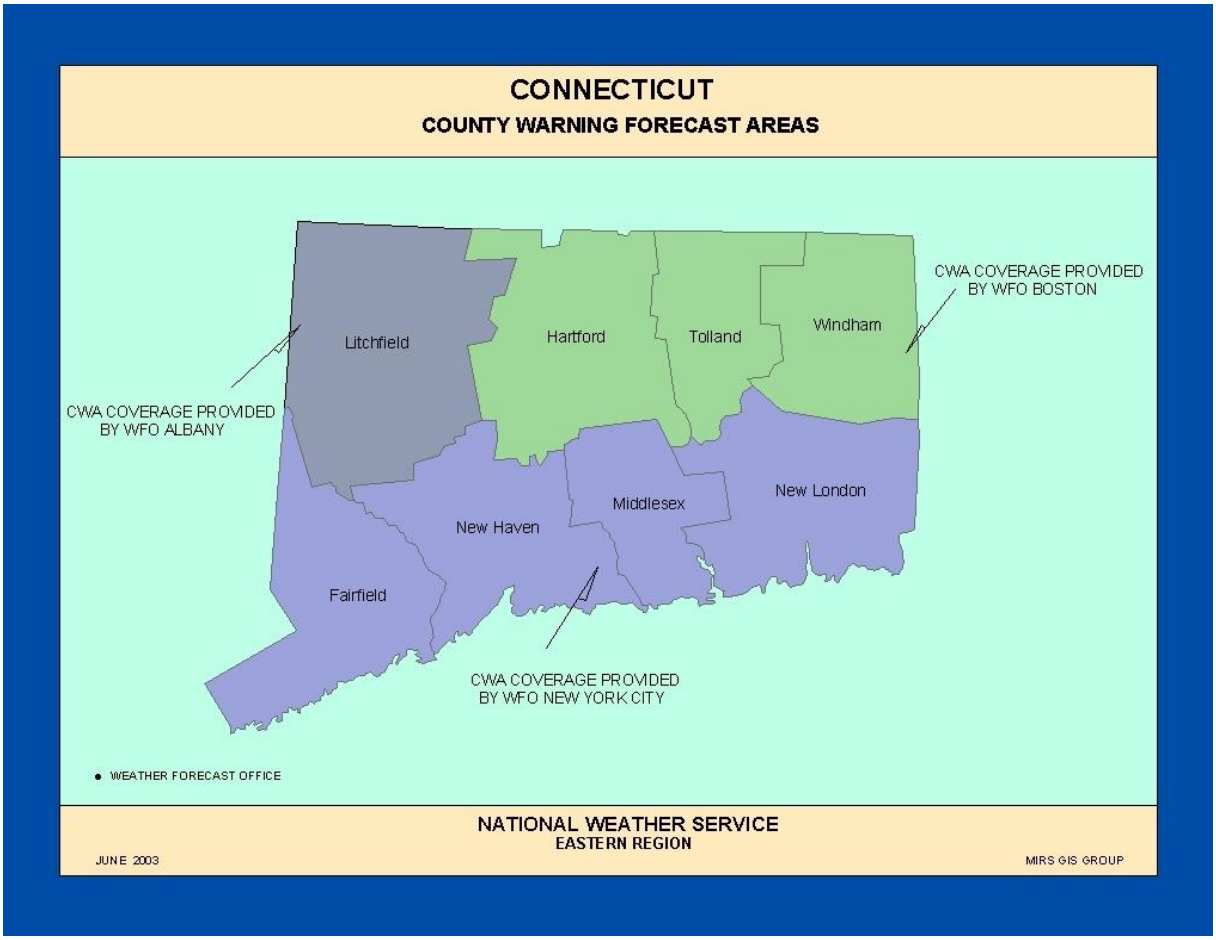

Figure 3-3: Map of NWS County Warning Forecast Areas in Connecticut.

(Note: "WFO Boston" is actually "WFO Taunton, and "WFO New York City" is actually "WFO Upton".)

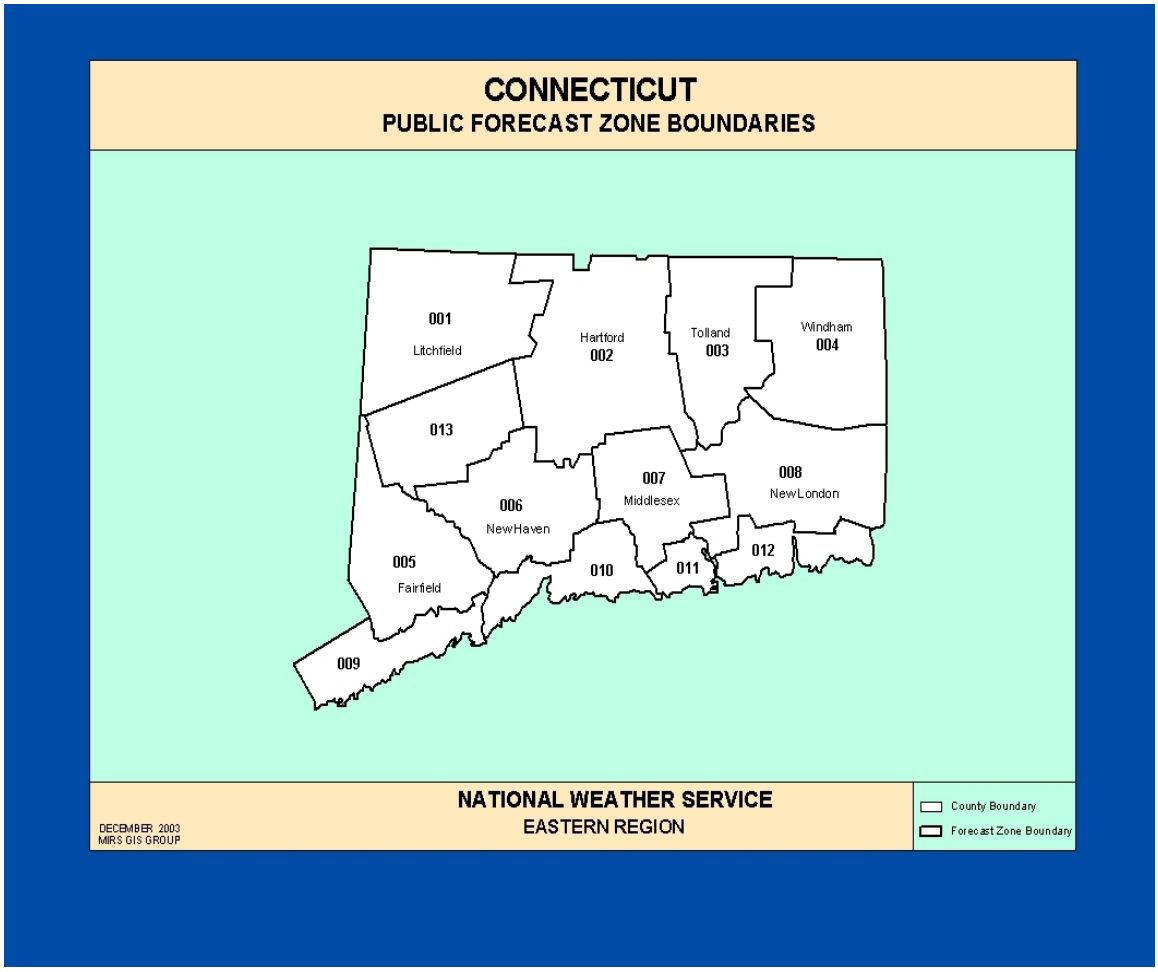

Figure 3-4: Depiction of Connecticut Forecast Zones

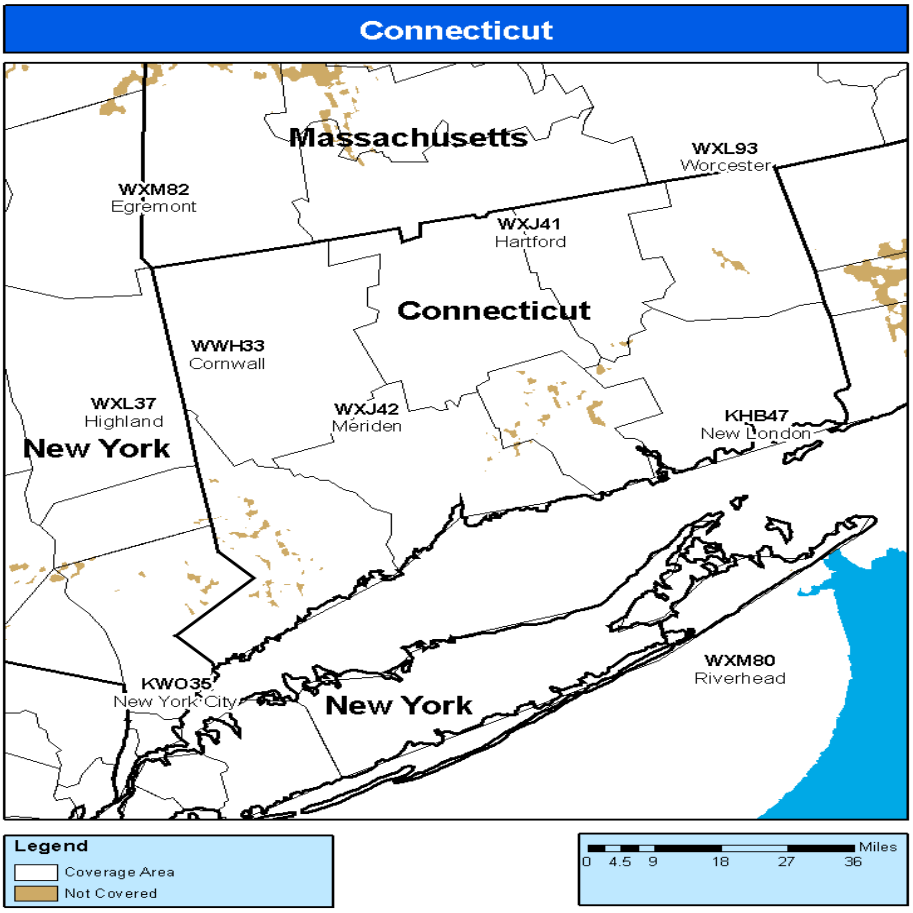

Figure 3-5: Depiction of NWRAH Coverage in Connecticut

Table 3-5: Reference Sheet for Warning/Advisory Thresholds (Last Updated March 7, 2017)

TYPE OF ISSUANCE	WHEN ISSUED FOR CONNECTICUT
WINTER WEATHER ADVISORY	When any of the following is expected within the next 12 to 24 hours: More than one predominant hazard Winter weather event having more than one predominant hazard (ie., snow and ice, snow and sleet, or snow, ice & sleet) meeting or exceeding advisory criteria for at least one of the precipitation elements, but remaining below warning criteria. Snow, Ocean Effect Snow, or Sleet •3 inches averaged over a CT, MA, RI forecast zone in 12 hours Snow and Blowing Snow · Sustained or frequent gusts of 25 to 34 mph accompanied by falling and blowing snow occasionally reducing visibility to < 1/4 mi for > 3 hours Blowing Snow · Widespread or localized blowing snow reducing visibility to < ¼ mi with winds < 35 mph Black Ice · A Special Weather Statement will usually be issued when sufficient moisture is expected to cause a thin layer of ice on road surfaces, typically on cloudless nights ("black ice"). At forecaster discretion a formal Winter Weather Advisory may be issued instead.
FREEZING RAIN ADVISORY	Any accretion of freezing rain or freezing drizzle on road surfaces
WIND CHILL ADVISORY	Wind chill index between -15°F and -24°F for at least 3 hours using only the sustained wind.
WINTER STORM WARNING	When any of the following is expected within the next 12 to 36 hours: More than one predominant hazard · Winter weather event having more than one predominant hazard, i.e. heavy snow and blowing snow (below blizzard conditions), snow and ice, snow and sleet, sleet and ice, or snow, sleet and ice} meeting or exceeding warning criteria for at least one of the precipitation elements. Snow, Ocean Effect Snow, or Sleet 6 inches averaged over a forecast zone in a 12 hour period 8 inches averaged over a CT, MA, RI forecast zone in a 24 hour period
BLIZZARD WARNING	Sustained winds or frequent gusts > 35 mph AND considerable falling and/or blowing snow frequently reducing visibility < ¼ for > 3 hours Blizzard conditions need to be the predominant condition over a 3 hour period
ICE STORM WARNING	½ inch or greater accretion of freezing rain in any zone
WIND CHILL WARNING	Wind chill index < -25°F for at least 3 hours using only sustained wind
WIND ADVISORY	Sustained winds 31-39 mph (27-34 kts) for at least 1 hour; OR any gusts to 46-57 mph (40-49 kts)
HIGH WIND WARNING	Sustained winds 40-73 mph (≥35 kts) for at least 1 hour; OR any gusts ≥ 58 mph (≥50 kts)

SMALL CRAFT ADVISORY	Over the coastal waters…sustained winds 25-33 kts AND/OR Seas ≥ 5 feet within 24 hours
GALE WARNING	Over the coastal waters…sustained winds 34-47 kts within 24 hrs from a non-tropical system
STORM WARNING	Over the coastal waters…sustained winds 48-63 kts within 24 hours from a non-tropical system
HURRICANE FORCE WIND WARNING	Sustained winds or frequent gusts ≥ 64 kts (> 2 hrs) within 24 hours from a non-tropical system
TROPICAL STORM WARNING	Sustained winds 39-73 mph (34-63 kts) (no gust criteria) associated with a tropical storm expected to affect a specified coastal zone within 24 hours
TROPICAL STORM WIND WARNING (INLAND)	Sustained winds 39-73 mph (34-63 kts) (no gust criteria) associated with a tropical storm affecting areas beyond coastal zone (inland) within 24 hours
HURRICANE WARNING	Sustained winds ≥ 74 mph (64 kts) (no gust criteria) associated with a hurricane expected to affect a specified coastal area within 24 hours
HURRICANE WIND WARNING (INLAND)	Sustained winds ≥ 74 mph (no gust criteria) associated with a hurricane affecting areas beyond coastal zone (inland) within 24 hours
SPECIAL MARINE WARNING	Brief/sudden occurrence of sustained wind or frequent gusts ≥ 34 knots, usually associated with thunderstorms; AND/OR hail ≥3/4" in diameter; also issued for waterspouts
SEVERE THUNDERSTORM WARNING	Thunderstorms with wind gusts ≥ 58 mph (50 kts) AND/OR hail ≥1" in diameter
TORNADO WARNING	Likelihood of a tornado within the given area based on radar or actual sighting; usually accompanied by conditions indicated above for "Severe Thunderstorm Warning"
FLOOD ADVISORY	Expected inundation of some low lying and poor drainage areas, resulting in a nuisance to the public but not a threat to life and property.
FLASH FLOOD WARNING	Rapid and extreme flow of high water into a normally dry area, or a rapid water level rise in a stream or creek above a predetermined flood level, beginning within a short timeframe from the onset of heavy rain. A dam or levee failure, or water released from an ice jam is also considered
FLOOD WARNING	Expected overflow or inundation by water which causes or will cause damage and/or a threat to life
RIVER FLOOD WARNING	Water level at a River Forecast point along a main stem or larger tributary river (such as the Connecticut, Shetucket or Yantic) is expected to reach or exceed flood stage
COASTAL FLOOD ADVISORY	Minor coastal flooding expected within 12 hours. Examples include: splash over causing a few roads briefly impassable, standing water in parking lots, etc.
COASTAL FLOOD WARNING	Coastal flooding expected within 12 hours; widespread serious coastal flooding which damages property AND/OR is a threat to life
EXCESSIVE HEAT WARNING	Daytime heat indices of ≥ 105°F for 2 or more hours
HEAT ADVISORY	Daytime heat indices of 100ºF-104ºF for 2 or more hours

HEAT WAVE	Issued for non-criteria warning/advisory heat. A heat wave is defined as 3 or more days of > 90ºF temperatures.
DENSE FOG ADVISORY	Widespread visibility ≤1/4 mile for at least 3 hours
FREEZING FOG ADVISORY	Very light ice accumulation from predominantly freezing fog
FROST ADVISORY	Issued under clear, light wind conditions with forecast minimum shelter temperature 33-36ºF during growing season
FREEZE WARNING	When minimum shelter temperature drops to < 32ºF during growing season
HIGH SURF ADVISORY	When high surf poses a danger to life in the form RIP currents or breaking seas
RED FLAG WARNING	High degree of confidence that dry fuels and weather conditions support extreme fire danger within 24 hours using the following criteria as a guide: · Winds sustained or with frequent gusts > 25 mph · Relative Humidity at or below 30% anytime during the day · Rainfall amounts for the previous 5 days less than 0.25 inches (except 3 days in pre-greenup) · Lightning after an extended dry period · Significant dry frontal passage · Dry thunderstorms · Keetch-Byram Drought Index values of 300 or greater (summer only)

This table contains National Weather Service criteria for issuing Advisories and Warnings for various weather events. Watches generally are issued with longer lead times in expectation of meeting Warning criteria.

3.3 Regional Planning Organizations

Regional planning organizations (RPOs) in Connecticut include the Councils of Governments (COGs). RPOs have traditionally conducted or overseen transportation planning, emergency planning, and some types of land use and environmental planning for their member communities. The RPOs may provide land use guidance to municipalities and assist with drafting of ordinances or zoning regulations in the more rural communities of the state.

Several of the RPOs in Connecticut have been responsible for development of multi-jurisdiction hazard mitigation plans or single-jurisdiction hazard mitigation plans for member communities. The RPOs have administered the planning grants to develop these plans, then either developed the plans using in-house planning staff or contracted a consultant to develop the plans.

Legislation passed in June 2013 made a number of changes to RPOs, including eliminating regional planning agencies and regional councils of elected officials after January 1, 2015, leaving regional COGs as the only type of RPO. The number and configuration of RPOs in Connecticut changed as funding sources were altered. As of 2019, there are nine RPOs.

The Regional Performance Incentive (RPI) Program, administered by the Connecticut Office of Policy and Management, was established under the provisions of Section 8 of Public Act 07-239, "An Act Concerning Responsible Growth". The goal of the RPI Program

is to encourage municipalities to participate in voluntary inter-municipal or regional shared services projects that have the potential to produce measurable "economies of scale", provide desired or required public services, and lower the costs and tax burdens associated with the provision of such services. Eligible applicants include any regional council of governments (COG), any two or more municipalities acting through a COG, any Economic Development District, or any combination thereof.[242]

CT Council of Small Towns (COST) is a member-driven organization committed to giving Connecticut's 139 smaller communities a strong voice in the legislative process. Founded in 1975, COST is the state's only organization dedicated exclusively to the interests of Connecticut's smaller towns. COST marshals the collective talent, experience and vision of municipal leaders to help shape public policies in ways that help Connecticut's smaller communities provide critical services to residents.[243]

CT Conference of Municipalities (CCM) was founded in 1966, and is the state's largest nonpartisan organization of municipal leaders, representing 165 member municipalities. Their mission is to improve everyday life for every resident of Connecticut through sharing best practices and objective research, and advocating at the state level for issues affecting local taxpayers. CCM is governed by a board of directors that is elected by the member municipalities.[244]

3.4 Municipal Programs

All municipalities within Connecticut have developed and implemented, locally or on a regional level, several sets of plans and regulations that are used to effectively manage natural resources on a community level. These plans and regulations are updated on a regular basis either due to a statutory requirement or through normal practices at the local level. Since all these mechanisms exist and are available to all municipalities, largely through the State's enabling legislation, the State understands that local communities maintain adequate capability for pursuing and implementing hazard mitigation activities.

Table 3-6 lists many of the plans, regulations, and ordinances that communities have developed and continue to maintain, and the connection of these plans and regulations to hazard mitigation. Additional details are provided after the table.

[242]http://www.ct.gov/opm/lib/opm/igp/grants/rpi/2017_annual_report_on_the_regional_performance_incentive_program.pdf
[243] http://www.ctcost.org/Pages/index
[244] http://www.ccm-ct.org/

Table 3-6. Local Plans and Regulations Used by Communities

Plan or Regulations	Significance to Hazard Mitigation
Emergency Operations Plans	Assist local communities in the preparation and implementation of resources prior to and during an emergency, including natural hazard events. The plans are updated as needed and help local communities assess the locations of vulnerable areas within their communities and how to handle these areas during an emergency. This plan may be a good source of information for local risk assessment activities. A new template was issued by DEMHS in 2016, and most communities are working toward a revision toward the new template.
Floodplain Management Regulations/ Ordinance or Flood Damage Prevention Regulations/Ordinance	These regulations assist a community in effectively manage its floodplain areas and are typically organized similar to the NFIP regulations. These regulations are usually part of a community's land use regulations (described below). However, depending on the community, they may be a part of the municipal code of ordinances. These regulations may require specific minimum design/construction/or development elements which must be complied with for health and safety reasons.
Zoning Regulations	Primary tool for community for shaping the character and development of a community. Zoning regulations may restrict particular uses or structures from being located in vulnerable areas in a community. These regulations may also require specific minimum design/construction/or development elements which must be complied with for health and safety reasons. If the flood damage prevention regulations are not in the municipal code of ordinances, they are typically in the Zoning Regulations.
Subdivision Regulations	Important tool for community for shaping the character and development of a community through subdivisions. These regulations often describe how floodprone areas must be addressed, specify minimum and maximum roadway dimensions, specify where utilities may be placed (underground vs. above-ground), and specify how fire protection will be provided. Some elements of the flood damage prevention regulations are often repeated in the Subdivision Regulations.
Stormwater Regulations	Some communities have developed stormwater regulations or ordinances that are separate than the Zoning and Subdivision Regulations. Stormwater regulations provide requirements for addressing stormwater in connection with development, redevelopment, and road projects.
Wetland Regulations	In Connecticut, all wetland regulations describe wetlands as necessary for a number of functions including flood management. These regulations help a community maintain and protection the integrity of its wetland resources. Wetland areas often coincide with FEMA delineated floodplain areas in a community.
Local Adoption of CT State Building Code	Critical to maintain adequate safety and building integrity factors in construction. In addition, these codes may limit structure size, type or place additional requirements in the construction of structures located in a identified hazard area (i.e., high wind, coastal, floodplain, wildland/urban interface area, etc.).
Local Plan of Conservation and Development	Primary plan that helps guide a community in its land use and management decisions with regard to development and conservation and/or preservation of open space.
Local Municipal Coastal Programs	Assists local coastal communities with development and management of coastal resources and preventing adverse impacts on coastal resources. As the municipal coastal programs are updated, communities typically increase the emphasis on coastal hazard mitigation and management.

3.4.1 Local Boards, Commissions, and Departments

Most Connecticut communities are governed by a Board of Selectmen, Board of Aldermen, Town Council system, or City Council system. The chief elected official (for example, mayor or First Selectman) or his town/city manager oversees many of the municipal departments, commissions, and boards and are directly responsible for appointing members of many commissions and boards that are involved with hazard mitigation.

Within each municipality, appropriate municipal departments, commissions, and boards are involved with natural hazard mitigation. The following subsections describe general departmental responsibilities and duties related to natural hazard mitigation within communities.

Emergency Management Department, Office, or Agency

The typical mission of the local Emergency Management Department or Office (under an Emergency Management Director, or EMD) is to maximize survival of people, prevent and/or minimize injuries, and preserve property and resources in its jurisdiction by making use of all available manpower, equipment, and other resources in the event of natural or technological disasters or national security threats. In addition to coordinating activities during disasters, the Emergency Management Office typically coordinates all early warning activities and is involved in educating the public on how to react during emergency situations. The EMD is typically charged with developing and updating the community's Emergency Operations Plan (EOP). The Emergency Management Department is one of the primary agencies involved with hazard mitigation through the mitigation categories of "emergency services" and "public education."

In some communities, the Fire Chief or Police Chief is the director of the Emergency Management Department, although this is not always the case. DEMHS recommends that the EMD not be a Fire Chief or Police Chief or other major public official because, during an emergency, a Fire Chief or Police Chief that is also the EMD may become overwhelmed. Some communities have an Emergency Management Agency that includes the EMD and members of other departments, and the agency meets as needed prior to hurricanes, tropical storms, snowstorms, etc.

Department of Fire/Rescue/EMS

Local communities may have either full-time or volunteer fire companies. Larger cities or towns generally have several fire houses in different areas of the city or town to assure rapid emergency response. The Fire Department is one of the primary agencies involved with hazard mitigation through the mitigation categories of "emergency services" and "public education." As noted above, the Fire Chief is the EMD in some communities, although this is not required.

Police Department

Police departments are found in most of the suburban and urban municipalities and tribes but not in all rural towns in Connecticut. Day-to-day duties of a Police Department include

crime prevention, criminal investigations, traffic enforcement, motor vehicle accident investigations, and patrols. Duties related to natural hazard mitigation include planning and coordination of personnel, equipment, shelters, and other resources necessary during an emergency. Communication and coordination with the Fire Department is critical before, during, and after natural hazard emergencies. Many of the less-populated towns have resident state troopers in lieu of a municipal police department. As noted above, the Police Chief is the EMD in some communities, although this is less frequent than the Fire Chief serving as the EMD.

Public Works and Highway Departments

Most Connecticut communities have a Public Works Department or Highway Department whose responsibilities include construction and maintenance of roadways, sidewalks, and drainage systems; maintenance of all parks and school properties; street sweeping, sanding, and snow removal; the preservation, care and removal of trees within the community's rights-of-way and/or public places; and maintenance of community vehicles and equipment. Larger communities will have a public works department while smaller communities will typically have a Highway department.

As is common throughout Connecticut, the public works departments are often charged with implementing numerous structural projects that are related to hazard mitigation. Specifically, roadway/infrastructure maintenance and complaint logging/tracking are the two primary duties of the Public Works departments. For example, a public works department may track, plan, prepare for, and respond to flooding, inundation, and/or erosion of roads and infrastructure. The public works departments also conduct snow removal and deicing on roads; tree and tree limb maintenance; and the appropriate maintenance and upgrades of storm drainage systems to prevent flooding caused by rainfall.

Because of the duties described above, the public works departments are often the "de facto" first responders during emergencies. The public works departments must maintain access for the Police and Fire Departments to respond to emergencies. In some communities, a Public Works Commission manages the department and will develop budgets, make recommendations to other boards, and establish regulations.

Building Departments

Local Building Departments administer a building inspection program adhering to and enforcing all code requirements of the State of Connecticut relating to building construction. Tribal governments have building departments that utilize the international building code. Additional responsibilities include administering and enforcing all related codes for the safety, health, and welfare of persons and properties in the jurisdiction, supervising departmental policies and procedures, and providing technical assistance to local officials.

The Building Official has a unique responsibility when it comes to hazard mitigation as he or she is responsible for overseeing a number of codes such as those related to wind damage prevention as well as those related to inland and coastal flood damage prevention. Although

other departments and commissions may review development plans and develop or revise regulations, many important types of pre-disaster mitigation are funneled through and enforced by the Building Department. For example, the Building Department enforces A- and V-zone standards for flood proof construction and building elevations, maintains elevation certificates, and enforces building codes that protect against wind and fire damage. Thus, the types of mitigation that are administered by the Building Department include "prevention" and "property protection."

Typically, the building department provides hazard mitigation assistance at the time of the building permit application. The primary role of the Building Department during disaster situations is to provide damage assessment, inspect damaged buildings and issue permits for temporary structures and actions necessary to maintain safety standards.

In some communities, the Building Official is the administrator of the local flood regulations under the NFIP. This person also has access to map information showing the location and extent of SFHAs in the community. This mapping is important in raising the public's awareness of natural hazards in the community.

Fire Marshal

The local Fire Marshal administers a building inspection program adhering to and enforcing all code requirements of the State of Connecticut relating to Life Safety and Fire prevention. Tribal governments have fire marshal offices that utilize the international fire code. Additional responsibilities include administering and enforcing all related codes for the safety, health, and welfare of persons and properties in the jurisdiction, supervising departmental policies and procedures, and providing technical assistance to citizens and property owners.

Typically, the fire marshal's office provides hazard mitigation assistance at the time of the building permit application and during the construction of a structure. The primary role of the fire marshal's office during disaster situations is to provide assistance with damage assessments and actions necessary to maintain safety standards.

Engineering Department

Many communities have Engineering Departments and/or a Town or City Engineer who plans, directs, and coordinates engineering contracts and construction projects, including roadway, bridge, sanitary, and marine development. The Engineer provides technical consultation to municipal boards and commissions and serves as the municipal liaison with various state agencies. As such, the Engineer will often need to review issues related to drainage, flood conveyance, and flood mitigation and related elements of structural hazard mitigation. The Engineer usually works closely with Public Works and Highway personnel. Typically, the Engineer or the Public Works / Highway Superintendent will have a list of flood prone areas in the community.

Planning and Zoning / Land Use Department

The Planning and Zoning or Land Use Department of a jurisdiction enforces the local zoning and subdivision regulations, provides staff assistance to the Planning and Zoning Commission (or separate Planning Commission and Zoning Commission), and performs long term planning activities related to land use and community development. This department typically drafts, updates and implements the goals and objectives of the local Plan of Conservation and Development. The planning office provides assistance to local Health Departments and Building and Engineering Departments.

In many communities, the local planning department includes the administrator of the local flood regulations under the NFIP, if it is not the Building Official as discussed above. This person also has access to map information showing the location and extent of SFHAs in the community. This mapping is important in raising the public's awareness of natural hazards in the community.

Because the Planning Department typically directly assists the applicable commissions with administration of the Zoning Regulations, Subdivision Regulations, and Inland Wetland Regulations, the department is responsible for elements of almost all six facets of mitigation ("prevention," "property protection," "natural resource protection," "structural projects," "emergency services," and "public education"). For example, wetlands preservation is one of the purest forms of hazard mitigation due to the natural functions and values of wetlands including stream bank and shoreline stabilization and flood water storage.

In coastal communities, the Planning and Zoning / Land Use Department typically assists the local Harbor Management Commission in administering any Waterway Protection Line Ordinances, as well as reviewing coastal site plan applications for certain development types within the coastal management area defined by the State.

Tree Wardens

Most Connecticut communities have designated an individual as Tree Warden and administer a tree-trimming program. The tree warden is typically the public works director or a staff member from the planning or engineering departments. Tree-trimming on municipally-owned property is typically conducted on an as-needed basis or following complaints by residents. Most tree-trimming is conducted with clean-up activities following storms. In general, local governments maintain small trees and downed branches and contract with tree companies to deal with larger trees.

Flood and Erosion Control Boards

CGS Sections 25-85 through 25-98, inclusive, enable municipalities to form a municipal Flood and Erosion Control Board (FECB) with the power to plan, layout, acquire, construct, reconstruct, repair, maintain, supervise and manage flood and erosion control systems, flood control projects, and dam repair projects. These boards may also enter upon, take and hold by purchase, condemnation or otherwise, property which it determines necessary for use in connection with flood or erosion control systems; defray the cost of such systems by

issuing bonds or other evidence debt, or from general taxation, special assessment or any combination thereof; and assess those properties benefiting from such project according to such rules as the FECB may adopt. The FECB is further empowered to negotiate, cooperate, and enter into agreement with: 1) The United States, 2) the United States and the State of Connecticut or 3) the State of Connecticut in order to satisfy the conditions imposed by the United States or the State of Connecticut in authorizing any system for the improvement of navigation of any harbor or river and for protection of property against damage by floods or by erosion, provided such system shall have been approved by DEEP Commissioner.

These statutes listed above enable a municipality, which has recognized a particular flood or erosion hazards potential and is dedicated to reducing or eliminating the hazards, to work with, and receive assistance from, federal and state agencies. The municipality must make a financial commitment based on federal cost-sharing requirements for a federal project. For a state/local project, the cost-sharing ratio is based on the ownership of the benefited property. The State will provide two-thirds of the project cost if the property protected is municipally owned. When the project benefits private properties, the State will provide one-third and the municipality will provide two-thirds of the project costs.

Although most of the municipalities in Connecticut possess the appropriate municipal code to enable the formation of FECBs, few FECBs are actively operating in Connecticut. In some communities, the existing Inland Wetland and Watercourse Commission or Agency or Board of Selectmen may act as the FECB.

Parks and Recreation Department

The Parks and Recreation Department typically oversees community open space and parks. This responsibility includes the properties acquired by the community for hazard mitigation purposes and converted to open space.

Attorney

A community's Attorney's office plays a critical role in hazard mitigation. The office typically reviews and helps to administer grant applications and projects under the HMA programs such as HMGP and PDM.

Commissions Related to Hazard Mitigation

Many commissions are involved with hazard mitigation. These may include:

- Conservation Commissions – Charged with the development, conservation, supervision, and regulation of natural resources and water resources (hazard mitigation through the category of "natural resource protection")
- Inland Wetlands and Watercourses Commissions – Charged with implementing and enforcing all provisions of the Connecticut General Statutes as regards the Inland Wetlands and Watercourses Act (hazard mitigation through "prevention," "natural resource protection," and "structural projects")

- Planning and Zoning Commissions – Charged with establishing, implementing, and overseeing planning and zoning regulations as provided by the Connecticut General Statutes (hazard mitigation through "prevention," "property protection," "natural resource protection," "structural projects," "emergency services," and "public education")
- Public Works Commission – Charged with managing the department and developing budgets (hazard mitigation through "prevention" and "structural projects").
- Land Acquisition Commission – Charged with determining and recommending to the Board of Selectmen or Council the feasibility of acquiring land, development rights, and conservation easements and prioritizing properties for acquisition by the Community (hazard mitigation through "natural resource protection")
- Harbor Management Commission – For coastal communities, charged with the duty and purpose of developing a Harbor and Waterways Management Plan (hazard mitigation through "prevention," "property protection," "structural projects," "emergency services," and "public education")
- Marina Commission – For coastal communities, charged with the control, development, management, operation, and maintenance of the municipal marina facilities (hazard mitigation through "property protection" and "emergency services")

Local Implementation of the National Flood Insurance Program (NFIP)

The State of Connecticut reviews local flood management programs, local NFIP procedures, mitigation actions and local capabilities through the Community Assistance – State Support Services Element (CAP-SSSE) of the NFIP. Each year DEEP LWRD staff perform a number of Community Assistance Visits (CAVs). During the CAV, the community's ordinances are reviewed along with any variances, which have been granted in the floodplain. DEEP staff meet with the local floodplain coordinators and travel around local floodplain areas looking for compliance issues and checking on possible violations. DEEP staff prepare a written report on the CAV and submit it to FEMA. The report is placed in the community's NFIP file and becomes part of the participating community's compliance history. During CAVs for communities that have RL or SRL properties, there is emphasis placed on mitigating those properties. Capability and desire to administer grants of that complexity varies dramatically from community to community.

CAVs are targeted for coastal communities once every five years due to their increased vulnerability to flooding. Inland communities normally receive a CAV once every ten years. Plans for potential future projects are also reviewed back at the DEEP to determine if they are in compliance with NFIP and State floodplain management regulations. The CAV program has uncovered violations and continues to allow the DEEP to more effectively monitor local municipal flood management regulations. Every municipality in Connecticut is a member of the NFIP and is required to submit to a CAV upon request. This has made the program very effective in assisting municipalities to monitor and prevent floodplain violations.

Summary of Land Use Controls

Every municipality within Connecticut has some form of flood zone protection authority authorized by one of several Connecticut General Statutes (C.G.S.). Section 7-148 of the

CGS gives municipalities authority to pass ordinances, and many communities have done so under this authority. CGS. Section 8-2 (et. seq.) provides authority for municipal zoning including provisions to use zoning to "secure from flood." A zoning commission administers zoning and its actions in most municipalities, and is independent of a municipality's legislative body. Some communities may have both a flood ordinance and flood zoning. Municipalities also have authorities, which allow them to purchase open space (7-13lb), to conduct comprehensive planning (8-18 et. seq.), to regulate inland wetlands (22a-36 et. seq.), to establish and maintain civil preparedness plans (28-7), and to regulate construction of buildings (29-260 et. seq.). As discussed above, coastal municipalities have additional authority and responsibility under the Connecticut Coastal Management Act including ensuring that development within coastal flood hazard areas are managed to minimize risks to life and property.

Although the State has a 100% participation rate of its municipalities in the NFIP, the real measure of success cannot be determined merely by participation in the program. The minimum regulations required for admission into the NFIP must be adequately understood and enforced at the local level. The Flood Management Section's CAP has enabled DEEP to greatly expand its technical and general assistance capabilities to local officials, residents, banks, insurance agents and engineers.

Available qualitative information and ongoing communications between LWRD programs and local governments indicate that local governments' land use policies and the enforcement of these policies and local regulatory controls have been and continue to be effective with regards to the mitigation of natural hazards at the local level. Many communities have been proactive with regards to managing their local natural resources and in developing local strategies to mitigate and/or plan for post-disaster recovery. The majority of communities located within the state actively work with DEEP and DEMHS to develop and implement local hazard mitigation activities, and enhance and exercise evacuation and post-disaster plans of action

The Effectiveness of Local Hazard Mitigation Plans

Connecticut's local planning effort began in 2000. Once initially approved by FEMA, local hazard mitigation plans are required to be updated every five years. Through the year 2013, DEEP reviewed local plans and submitted them to FEMA for final review and comment. Through this review process, DEEP observed an evolution of the plans in that they are becoming more specific in nature as to the proposed hazard mitigation activities recommended for implementation on a local level.

Beginning in 2013, local plan review was transferred from DEEP to DEMHS. DEMHS evaluates effectiveness of the plans by the quality of the activities that result from the implementation of the adopted plans. Upon the submission of regular plan updates, the regulatory elements of the plan will continue to be analyzed as part of all future planning grants in those communities.

3.5 Activities of Other Entities Located in Connecticut

3.5.1 Electricity Providers

As a result of Tropical Storm Irene in August 2011 and Winter Storm Alfred in October 2011, the state understands that communities now place a higher priority level on tree trimming and maintenance to protect utilities, roads, persons in transit, and structures as compared to its priority level several years ago. Planning has been vigorous, from the publication of James Lee Witt's report "Connecticut October 2011 Snowstorm Power Restoration" (December 2011) to meetings between utility companies and Connecticut municipalities that took place in 2011 and 2012 that resulted in the "Report of the Two Storm Panel" (January 2012). The Report of the Two Storm Panel included 82 individual recommendations that have been shaping legislative initiatives and inter-agency policies since 2012, helping to increase capabilities in Connecticut. Some of these policies have already helped, as noted during Hurricane Sandy in October 2012.

Eversource

Eversource is the largest power utility company within Connecticut. Eversource has several short and long-term programs to reduce the impact of natural disasters on the general public. Eversource short-term programs include using power restoration crews to restore power after small-scale storms. Eversource also has agreements with other states and Canada to bring in additional crews of linesmen after major disasters to restore power.

Eversource maintains an annual proactive program of tree trimming across the State. Trees are identified and property owners are notified that their trees that overhang or threaten power lines will be trimmed. Tree trimming reportedly saves millions of dollars in yearly damage to the power grid.

Aside from tree trimming, Eversource maintains other policies that build capabilities statewide. During the peak summer usage months, Eversource maintains agreements with large companies to curtail power usage during peak periods to prevent the need for brownouts or rolling blackouts. Eversource also issues power watches and warnings when necessary to conserve energy. When a "power warning" is issued, Eversource asks customers to turn off all unnecessary electrical appliances, air conditioning, and lights during the peak hours of 11 a.m. to 4 p.m. This helps assure that sufficient power will be available for all.

United Illuminating

United Illuminating (UI) is the second-largest electricity provider in Connecticut. Like Eversource, UI maintains a tree trimming program to protect its electricity transmission and distribution system. UI is also currently in the process of reinforcing its substations to withstand flooding in areas where the utility has infrastructure at risk.

3.5.2 CtWARN

CtWARN is a Water/Wastewater Agency Response Network (WARN) comprised of utilities providing voluntarily assistance to one other in the form of personnel and resources during emergencies by means of pre-arranged mutual aid agreements. The mission of CtWARN is to support and promote statewide emergency preparedness, disaster response, and mutual assistance matters for public and private water and wastewater utilities. CtWARN accomplishes this mission by providing increased planning, coordination and enhanced access to specialized resources to enable rapid, short-term deployment of emergency services to restore critical operations of the affected water or wastewater utility. A total of 22 water and wastewater utilities and departments are members of CtWARN, covering more than half of Connecticut's geographic area.[245]

3.5.3 University of Connecticut

Center for Land Use Education and Research

The mission of the Center for Land Use Education and Research (CLEAR) is to provide information, education and assistance to land use decision makers, in support of balancing growth and natural resource protection. To achieve this goal, CLEAR conducts remote sensing research, develops landscape analysis tools and training, and conducts outreach education programs. CLEAR houses the following programs:

- NEMO (Nonpoint Education for Municipal Officials) provides information, education and assistance to local land use officials and other community groups on how they can accommodate growth while protecting their natural resources and community character.
- The Land Use Academy provides land use decision-makers the knowledge and skills needed to serve effectively on a land use board through a series of workshops.
- The Climate Adaptation Academy (CAA) is a partnership between Connecticut Sea Grant and UConn Center for Land Use Education and Research (CLEAR) to allow researchers, consultants, and others to work with municipalities and relevant professionals on climate adaptation.[246]
- Geospatial Training program provides hands-on training courses for land use decision-makers to introduce new users to geographic information systems (GIS), global positioning systems (GPS) and remote sensing technologies.
- Forestry program provides information and assistance to private land owners and local communities on how to better manage their forest lands.
- LERIS (Laboratory for Earth Resources Information Systems) is the main research program of CLEAR, and the principal place at the University of Connecticut for conducting remote sensing and GIS research focused on natural resources, landscape characterization and change, and the interaction of the two.

The Land Use Academy and the Climate Adaptation Academy are the primary vehicles for CLEAR's role in building capabilities in Connecticut for hazard mitigation. Most of the training sessions are geared toward local land use commissions and provide instructions on how to review land use proposals according to the regulations administered by the

[245] http://ctwarn.org/Members-List
[246] http://climate.uconn.edu/caa/

commission. Natural hazards such as flooding are routinely addressed by commissions, and the training helps commission members better understand these hazards.

These programs also provide specialized training. For example, a 2013 training session entitled "Climate Adaptation Training for Coastal Communities" provided local officials and other interested individuals in coastal communities with the latest information and skills necessary to proactively adapt to the impacts of changing climate such as coastal flooding and coastal storms. In 2017, workshops have focused on legal issues related to climate adaptation and creating living shorelines.

Connecticut Sea Grant

The Sea Grant College Program is a partnership between the nation's universities and its primary ocean agency, the National Oceanic and Atmospheric Administration (NOAA). The University of Connecticut is Connecticut's Sea Grant College. Connecticut Sea Grant (CTSG) collaborates with maritime industries and coastal communities to identify needs, and fund research, outreach, and educational activities that have special relevance to Connecticut and Long Island Sound. The mission is to work towards achieving healthy coastal and marine ecosystems and consequent public benefits by supporting integrated locally and nationally relevant research, outreach and education programs in partnership with stakeholders. Program activities are focused into the areas of marine aquaculture and biotechnology; use and conservation of marine resources, ecosystems, and habitats; coastal land use and community planning; habitat restoration and enhancement; aquatic invasive species; use and conservation of marine resources; and marine and aquatic science literacy.

The Sea Grant program helps build capabilities in Connecticut through several programs related to its area of coastal land use and community planning. For example, no-cost technical assistance was available in 2012 for communities impacted by Hurricane Sandy. In 2013, they released a report on Cost-efficient Climate Adaptation in the North Atlantic. The Sentinel Monitoring for Climate Change Program in Long Island Sound is a multi-disciplinary scientific approach to provide early warning of climate change impacts to Long Island Sound ecosystems and species to facilitate appropriate and timely management decisions and adaptation responses.[247] The Sea Grant program also coordinates with the CLEAR training described above.

Connecticut Institute for Resilience and Climate Adaptation

The Connecticut Institute for Resilience and Climate Adaptation (CIRCA) is a multi-disciplinary center of excellence that brings together experts in the natural sciences, engineering, economics, political science, finance, and law to provide practical solutions to problems arising as a result of a changing climate. The Institute helps coastal and inland floodplain communities in Connecticut and throughout the Northeast better adapt to changes in climate and also make their human-built infrastructure more resilient while protecting valuable ecosystems and the services they offer to human society. Initiatives focus on living shorelines, critical infrastructure, inland flooding, coastal flooding, sea level rise, and policy and planning.

[247] http://seagrant.uconn.edu/focus-areas/resilient-communities/

CIRCA runs a Research program as well as an external grants program for Connecticut municipalities and partners in resilience. To date, CIRCA has awarded 18 projects through its Municipal Resilience Grants Program to 14 municipalities and the state's regional planning organizations, Councils of Governments. An additional nine grants were awarded to municipalities, non-profits, academic researchers, a land trust and a conservation district to assist them with meeting the match requirement for federal or foundation grants programs. CIRCA research program has received funding from CT DEEP, CT DOT, the Connecticut Department of Housing, and NOAA. Research projects cover sea level rise and storm flooding statistics, green infrastructure and living shorelines evaluation, economic modeling, and policy analysis and planning.

The CIRCA Municipal and Matching Funds Grant Program project areas include:

- Darien - Low Impact Development for Resilience Against Flooding, Storm Water, and Climate Change
- East Lyme - Coastal Resilience, Climate Adaptation, and Sustainability Project
- Fenwick - Hepburn Dune and Marsh Preservation Project
- Hartford - Green Infrastructure Specialist for a More Resilient and Sustainable Future
- MetroCOG - Beardsley Zoo Green Infrastructure Project
- MetroCOG – Designing Resilience: Living Shorelines for Bridgeport
- Milford – Developing and Implementing a Restoration and Management Plan to Combat Threats and Challenges to Coastal Dune Resiliency in Urban Landscapes
- New Haven - Assessing Impacts of Tides and Precipitation on Downtown Storm Sewer System Through Use of Real-Time Depth and Flow Monitoring
- New Haven – New Haven Industrial Toolbox
- NHCOG– Building Municipal Resilience and Climate Adaptation through Low Impact Development
- NHCOG - Enhancing Rural Resiliency: A Vision and Toolkit for Adaptation in the Northwest Hills
- Oxford - Planning for Flood Resilient and Fish-Friendly Road-Stream Crossings in the Southern Naugatuck Valley
- SCCOG - Southeastern Connecticut Critical Facilities Assessment
- SCRCOG - Climate Adaptation and Resiliency Planning for Protection of Public Drinking Water
- SCRCOG - Design and Technical Guide for Implementing Innovative Municipal Scale Coastal Resilience in Southern Connecticut
- Stamford - Resilience Opportunity Assessment
- Waterford – Waterford Municipal Infrastructure Resilience Project
- WestCOG – Regional CRS Program

Through its first three years as an Institute, CIRCA projects and products provided significant support to municipalities and the state for resilience planning. In October 2017, CIRCA released localized sea level rise scenarios for the state and recommended that Connecticut plan for the upper end of the likely range of 20in/50cm of sea level rise by 2050.

CIRCA also led the research, outreach, and collaborative efforts of several state agencies to develop a regional vulnerability assessment and conceptual framing of coastal resilience for

the NDRC, a billion-dollar competition sponsored by the U.S. Department of Housing and Urban Development. In January 2016, Connecticut was announced as the winner of $54.3 million to implement a pilot project in Bridgeport based on the concept and funds to develop a regional Connecticut Connections Coastal Resilience Plan for New Haven and Fairfield Counties. Going forward, CIRCA will lead the development of the Resilience Plan in partnership with the state and municipalities through the year 2022, including localized flood risk modeling and measurements for adaptation option evaluation, site planning and design, and a robust engagement and education program.

Sustainable Connecticut

Sustainable CT seeks to help cities and towns across the state become more vibrant, healthy, resilient and thriving places for all of their residents. Sustainability actions, policies, and investments deliver multiple benefits and help towns make efficient use of scarce resources and engage a wide cross section of residents and businesses. Sustainable CT is being developed by towns, for towns. Municipal leaders and residents from across the state, the Connecticut Conference of Municipalities and people from key agencies, non-profits and businesses all partnered to help create the program. The Institute for Sustainable Energy at Eastern Connecticut State University is coordinating and supporting the initiative. Support is provided by a funding collaborative composed of the Emily Hall Tremaine Foundation (EHTF), Hampshire Foundation and Common Sense Fund. All of Connecticut's 169 towns and cities have been represented in Sustainable CT's development in some way, either by directly by a municipal official or staff person, by a highly engaged local volunteer, or by a regional entity charged with representing member municipalities.[248]

3.5.4 Connecticut Association of Flood Managers

The mission of the Connecticut Association of Flood Managers (CAFM) is to promote education, policies, and activities that mitigate current and future flood losses, costs, and human suffering caused by flooding and to protect the natural and beneficial functions of floodplains – all without causing unreasonable adverse impacts.

CAFM strives to serve as a unifying force for its membership and their related disciplines within the state of Connecticut, providing both a forum and supportive framework. They solicit thoughts, ideas, concerns, and issues related to floodplain management from members in order to affect and integrate better management practices within public policy. Such pursuits are based on the collective experience of a diverse statewide membership and result in both environmental stewardship and better collaboration locally, statewide, and regionally among all partners and stakeholders who have are interested in minimizing future flood risk and damages in the state of Connecticut.

Specifically, CAFM focuses on the following:

- Providing educational opportunities and dissemination of general and technical information to individuals concerned with sound floodplain management as well as to the general public;

[248] http://www.easternct.edu/sustainenergy/sustainable-communities/

- Promoting public awareness of sound floodplain management principles including mitigation, resiliency, preparedness, response, and recovery and the linkages between them;
- Encouraging the exchange of information, ideas, experiences, etc. among the practitioners of floodplain management at local, state, and regional scales;
- Promoting the professional status of floodplain managers and related disciplines;
- Informing and providing technical information relative to legislation pertinent and necessary to the effective implementation of sound floodplain management practices; and
- Promoting environmentally-sound solutions to floodplain management problems.[249]

3.5.5 The Nature Conservancy

The Nature Conservancy (TNC) is actively engaged with several Connecticut communities in the area of coastal resilience planning. Their Connecticut Coastal Resilience Program provides a decision support platform to better inform a process for decision-making and the implementation of socio-economic and natural infrastructure based solutions. Through this program, TNC has helped the communities of Old Saybrook and Waterford conduct willingness to pay surveys for climate adaptation, collaborated to develop a coastal resilience plan for Guilford, and conducted resilience workshops in Stamford, Madison, Stratford, Fairfield, Bridgeport, and Eastern Connecticut. They have led a comprehensive assessment in 24 coastal communities for future salt marsh advancement, making it the first state in the nation to have this assessment for their entire coastline. Other projects have included the Connecticut Coastal Design Project, which defined the most environmentally-friendly shoreline protection approaches for Connecticut, and the Adapting to the Rise report, which provides resources for a basic understanding of solutions for adapting to sea level rise.[250]

Early in 2012, The Nature Conservancy and Clean Air–Cool Planet, with local partners such as the Greater Bridgeport Regional Council and Regional Plan Association, held climate preparedness workshops in Bridgeport using NOAA's Roadmap for Adapting to Coastal Risk and The Nature Conservancy's Coastal Resilience Decision Support Tool. The goal was to advance a conversation on risk, choices, and actions the community could take to reduce risks and increase resilience. The workshops integrated maps showing potential flooding from extreme events and sea level rise into a community-driven process and dialogue through which the community identified top hazards and priorities for action. Through this process, Bridgeport was selected as a national case study for addressing climate impacts and reducing risk to infrastructure, with representatives presenting at a White House GreenGov 2012 conference in Washington, D.C.[251]

3.5.6 Citizen Volunteer Organizations

Some communities have a Citizens Emergency Response Team (CERT). The members of these teams have received training in many areas involving disaster situations such as first aid, sheltering management, and traffic control and commodities distribution along with

[249] https://ctfloods.org/
[250] http://coastalresilience.org/project/connecticut/
[251] https://coast.noaa.gov/digitalcoast/stories/bridgeport

other related tasks. These groups fill voids that exist especially during large scale incidents where standard public safety staffing cannot fulfill all the necessary operations.

3.5.7 Additional Groups

In addition to municipal offices, the American Red Cross (ARC), the Salvation Army and the local health districts provide services related to mitigation and emergency management. The ARC and the Salvation Army help provide shelter and vital services during disasters and participates in public education activities. The local Health Districts become involved with water supply and sanitation issues that may arise during and after emergencies and natural disasters.

3.6 Activities for Future Updates

DEMHS may enhance this section of the NHMP in future updates by performing the following:

- Continue reviews of any future agency/division organizational changes and their effect on the agency/divisions efforts relating to hazard mitigation;
- Continue evaluating state policies and programs associated with natural hazard mitigation; and
- Continue overviews of local hazard mitigation policy initiatives, where available.

This work, as stated above, will be performed through planning efforts supported by FEMA grants and possible other grant/funding sources that may become available to the State.

4 Local Planning Coordination

In response to the planning requirements of the Disaster Mitigation Act of 2000 (DMA 2000), the State of Connecticut has encouraged and facilitated local planning efforts to ensure that local and multi-jurisdiction hazard mitigation plans are in place. Unlike many states in the country, Connecticut does not have county governments, and local governments are the primary decision makers for land use. In Connecticut, as well as the remainder of FEMA Region I, the unit of local government is the town. Some towns are also incorporated as cities, but all local municipalities are towns.

Connecticut began assisting communities in the drafting of local hazard mitigation plans in 1997, utilizing Flood Mitigation Assistance (FMA) planning grant funds. The town of Westport was the first community to complete a local hazard mitigation plan in 1998. Due to limited FMA funding for planning activities, only one community each year was targeted to develop a plan under this grant program.

DEEP realized that the development of one community plan per year would not be an effective approach if the continued goal is to have a plan for every Connecticut community. The State of Connecticut's current approach is to work with regional planning organizations known as Council of Governments (COGs) as frequently as possible to prepare multi-jurisdiction hazard mitigation plans. Since the last plan update, the Office of Policy and Management (OPM) completed a comprehensive analysis of the boundaries of logical planning regions in Connecticut under Section 16a-4c of the *Connecticut General Statutes (2014 Supplement)*. This analysis resulted in the number of planning regions being reduced from the original fifteen to nine, as a result of four voluntary consolidations and the elimination of two COGs. Connecticut COGs currently include:

1. Capital Region Council of Governments (CRCOG)
2. Connecticut Metropolitan Council of Governments (MetroCOG)
3. Lower Connecticut River Valley Council of Governments (RiverCOG)
4. Naugatuck Valley Council of Governments (NVCOG)
5. Northeastern Connecticut Council of Governments (NECOG)
6. Northwest Hills Council of Governments (NHCOG)
7. South Central Regional Council of Governments (SCRCOG)
8. Southeastern Connecticut Council of Governments (SECCOG)
9. Western Connecticut Council of Governments (WestCOG)

Figure 4-1 below shows the status of the multi-jurisdictional hazard mitigation plans of each of Connecticut's COGs.

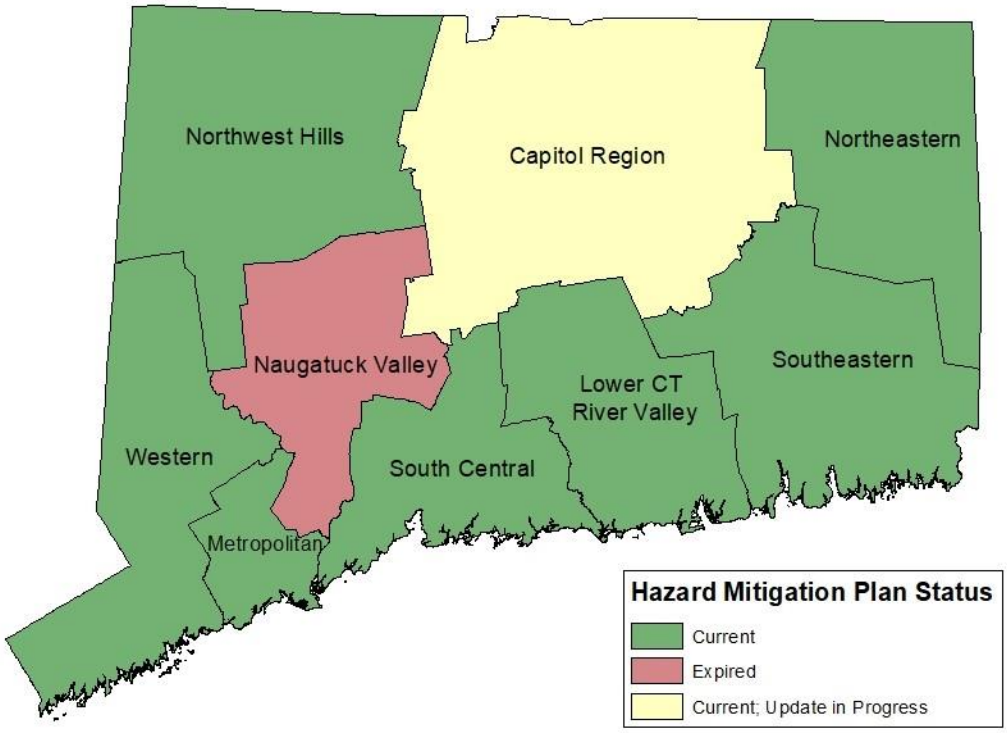

Figure 4-1: Status of Multi-Jurisdictional Hazard Mitigation Plans for Connecticut Council of Governments

When FEMA Pre-Disaster Mitigation (PDM) or Hazard Mitigation Grant Program (HMGP) planning grant funds are made available, the State solicits grant sub-applications from eligible sub-applicants such as municipalities or COGs. The sub-applications are reviewed for eligibility and completeness by the Connecticut Division of Emergency Management and Homeland Security (DEMHS), and are then evaluated and ranked by the Connecticut Interagency Hazard Mitigation Committee (CIHMC). All municipalities and COGs can apply for local assistance to update their hazard mitigation plans. HMGP funding is generally 15% of the total amount of Federal assistance provided to a State, Territory, or federally-recognized tribe following a major disaster declaration. PDM and Flood Mitigation Assistance (FMA) funding depends on the amount congress appropriates each year for those programs. Further details on these programs are available in Section 3.1.2 of the Capability Assessment for this plan.

Table 4-1 provides a list of planning projects funded in part by FEMA grants from Federal Fiscal Years 2012 - 2017. A full table of Connecticut's hazard mitigation activities is available in Chapter 5 of this plan.

Table 4-1: List of Past and Current Planning Activities Funded by FEMA

FEDERAL FISCAL YEAR	PROGRAM	DESCRIPTION	STATUS	FEDERAL FUNDING	LOCAL FUNDING
FFY12	PDM	Prepare a multi-jurisdiction hazard mitigation plan update by LHCEO	Underway	$30,075.00	$10,025.00
FFY12	PDM	Prepare a local hazard mitigation plan by the Town of Bethel	Underway	$30,750.00	$10,250.00
FFY12	PDM	Prepare a multi-jurisdiction hazard mitigation plan update by GBRPC	Underway	$90,000.00	$30,000.00
FFY12	PDM	Prepare three local hazard mitigation plan updates - grant to the Town of Watertown	Underway	$18,000.00	$6,000.00
FFY12	HMGP	Prepare four local hazard mitigation plan updates - grant to the City of Waterbury	Underway	$24,000.00	$8,000.00
FFY12	HMGP	Prepare six local hazard mitigation plan updates - grant to the Town of Southbury	Underway	$43,853.00	$14,618.00
		Totals for FFY 12		$236,678.00	$78,893.00
FFY13	HMGP	Prepare nine local hazard mitigation plan updates by the Northwest Connecticut Council of Governments (NWCCOG)	Underway	$48,750.00	$16,250.00
FFY13	HMGP	Prepare a multi-jurisdiction hazard mitigation plan update by SWRPA	Awarded	$41,700.00	$13,900.00
		Totals for FFY 13		$90,450.00	$30,150
--	HMGP	Prepare a multi-jurisdiction hazard mitigation plan update by CCRPA	FEMA review of grant application pending	$84,502.00	$28,167.00
--	HMGP	Prepare a multi-jurisdiction hazard mitigation plan by HVCEO; and incorporate updates for Danbury, New Fairfield, and Sherman	FEMA review of grant application pending	$123,750.00	$41,250.00
		Total Pending		$208,252	$69,417

4.1 Summary of Planning Efforts

As noted above, hazard mitigation planning is typically performed at the community level; this is true even when COGs coordinate the planning efforts. Connecticut has 169 municipalities, the Mashantucket Pequot and Mohegan tribal governments, and the political subdivisions of Groton and Stonington for a total of 173 local political entities. Most of the individual community plans are multi-jurisdictional plans developed by COGs, with the remainder being developed by and for individual communities.

Table 2-1 in Section 2.2 of the Hazard Identification and Risk Assessment of this plan contains details on the local plans for each jurisdiction, including the FEMA approval date, the expiration date, and the current status of the plan. At the time of the plan update, all multi- and single-jurisdictional plans were current or in the process of being updated, except the Naugatuck Valley Council of Governments, which was expired. All established local plans and draft plans submitted to the State were used as a source to inform the 2019 Connecticut State Hazard Mitigation Plan Update.

4.2 Local Planning Process

Development of a natural hazard mitigation plan at the community level is vital if the community seeks to comprehensively address natural hazards. Communities cannot prevent disasters from occurring, however, they can lessen the impacts and associated damages from these disasters. An effective plan will improve a community's ability to deal with natural disasters and will document valuable local knowledge on the most efficient and effective ways to reduce losses. Preparing a plan to lessen the impact of a disaster before it happens will provide the following benefits to a community:

- Reduce public and private damage costs;
- Reduce social, emotional, and economic disruption;
- Provide better access to funding sources for natural hazard mitigation projects; and
- Improve implementation of post-disaster recovery projects.

DEMHS provides technical assistance to sub-applicants for planning efforts and projects. Technical assistance includes meeting with local officials and COGs to facilitate the planning process, providing available planning guides and tools to support plan development, and reviewing and providing feedback on draft plans submitted for FEMA approval. While DEEP has historically performed much of the local plan review work at the state level, DEMHS assumed these responsibilities in 2013.

DEMHS reviews and analyzes all single-jurisdictional and multi-jurisdictional plans when they are submitted to the agency prior to being forwarded to FEMA. DEMHS plays an active role in the coordination of these reviews. DEMHS is knowledgeable in the contents of each plan and through its review verifies that all plans are consistent with the CT NHMP and DEMHS's mission. DEMHS also provides comments to the community or RPO to ensure the single- or multi-jurisdictional plan is complete and consistent with all State and FEMA requirements. The FEMA crosswalk form was formerly used to provide comments to local officials. It was supplanted by the Local Mitigation Plan Review Tool during 2013.

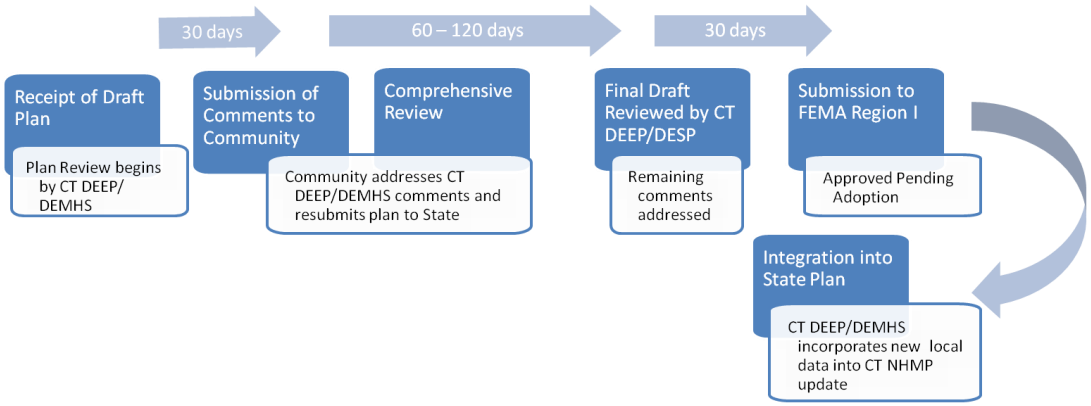

Figure 4-2: Local Plan Submittal Process and Integration Into State NHMP.

The goals established for this process are shown in Figure 4-2 and are as follows:

- Receipt of draft plan – Day 1;
- Initial plan review and submission of draft comments to community – within 30 days of receipt of draft plan;
- Comprehensive review, including time for community to revise plan based on initial comments – 60 to 120 days from submission of draft comments to community;
- DEEP submits plan and its comments to FEMA – within 30 days of receipt of final draft from community for the comprehensive review;
- Incorporate new data from FEMA approved local plan into the state's NHMP by the next update of the Plan.

Once the initial state review is completed, DEMHS will forward the plan to FEMA for its initial review. If the plan meets all of the requirements to receive conditional approval, FEMA will send the COG or the community an Approval Pending Adoption (APA). If the plan requires revisions, FEMA will forward comments to DEMHS. DEMHS will then send the COG or community a letter with comments from both FEMA and the State, and will provide additional technical assistance to the community as it revises the plan. Once the revisions are made to the plan, the COG or community will submit a final draft plan to DEMHS. DEMHS then will forward the final draft plan to FEMA for Conditional Approval. FEMA will then send a letter of APA to the COG or the community when it is approvable.

At this point, the community will hold a public hearing and formally adopt the mitigation plan. A signed resolution of adoption will then be sent to DEMHS. DEMHS will then forward the adoption documentation to FEMA who will review and then issue a letter of approval to the community with a copy to the COG and DEMHS.

Additional State Technical Assistance

In addition to the assistance provided as outlined above, DEMHS provides technical assistance in the form of training, individual meetings with RPOs, and ad-hoc technical assistance via telephone or meetings as requested. It is the responsibility of the local community to update its local natural hazard mitigation plan at least once before expiration in five years, although the community may choose to update the plan more frequently. Risk assessments from the local plans will be used periodically to enhance

Connecticut's hazard identification and risk assessment where applicable. Furthermore, DEEP considers actions common to all plans to target resources for mitigation outreach, technical assistance and grant offerings.

4.3 Local Hazard Identification and Risk Assessment

Local plans and multi-jurisdiction plan annexes identified 24 distinct hazards, although not all hazards were identified in every plan. Communities used a variety of approaches with a range of complexity to rank their identified hazards. Some plans used a blend of various techniques and discussion to determine their final hazard ranking. Several of the ranking/scoring techniques used in the local plans included:

- Quantitative scoring (based on available historical data, i.e. NCEI);
- Human judgment/knowledge of locality;
- Numerical Scoring Worksheets (based on criteria, i.e. FEMA 386-2 worksheets); and
- Interactive activities with Steering Committee members.

FEMA guidance indicates that the jurisdictions at greatest risk to specific hazards should be identified, considering both the characteristics of the hazard and the jurisdictions' degree of vulnerability. A variety of analysis methods may be sufficient to meet these goals; FEMA does not mandate a specific analysis method. As a result, many local and state plans have developed their own ranking system.

None of the ranking techniques used in the local plans is incorrect, as there is no standard for ranking hazards that impact specific jurisdictions. Lack of available data for each hazard is often a driving factor in the ranking method's degree of subjectivity. The numerical rankings were frequently performed by different plan preparers, and different data processing methodologies were used. The variability in the ranking systems made it challenging to directly compare local hazard rankings to the state risk assessment. Instead, the qualitative risk assessment information in the local plans was utilized as a component of the composite ranking maps as discussed in the Hazard Assessment and Ranking Methodology section of this chapter. Some plans provided a direct ranking of hazards in terms of overall risk from low to high, while others only offered general information about hazard risk. In the latter case, a ranking was assigned based on the data provided.

Table 4-2 below ranks each hazard based on the percentage of localities that ranked the hazard as High, Moderate-High, Moderate, Low-Moderate, and Low. A score of one to five was assigned to each individual plan ranking (one being for low rank and five being for high rank), with an overall score being determined based on the mean of the individual ranks. Several of the local plans discussed the hazards but did not qualitatively rank them; as a result these hazards were assigned rankings based on how they were described in detail in the local plans.

It is important to note that an overall score can be relatively high for a particular hazard even when only a handful of communities are at risk. One example is coastal flooding and storm surge, which is evaluated in only 33 coastal or estuarine communities. The relatively high score of 3.98 is possible because it is dependent only on the rankings within the local plans and annexes that include the hazard, rather than the score becoming diluted by

averaging across all Connecticut communities. One way to approach the overall risk score is as a measure of the risk that hazard poses to a community if it poses a hazard at all.

The "Weighted Score" in Table 4-2 accounts for the number of local plans that address each hazard. This index recalculates the risk score after assigning a score of zero to a hazard in an individual plan ranking if it is not addressed in that plan.

Additional details on the local plan review, hazards assessed, loss estimation, and tracking information are available in Appendix 4.

Table 4-2: Local Hazard Mitigation Plan Results of Hazard Identification

Hazard	Overall Ranking	Overall Score	Number of Local Plans	Weighted Score
Dam or Levee Failure	M	3.13	167	3.02
Drought	L-M	1.61	150	1.40
Earthquake	L-M	1.86	172	1.85
Erosion	L-M	1.85	48	0.51
Extreme Cold	M	3.00	29	0.50
Extreme Heat	M	2.82	33	0.54
Flood, Coastal & Storm Surge	M-H	3.98	40	0.92
Flood, Flash	M-H	4.38	26	0.66
Flood, Poor Drainage	M	3.36	78	1.51
Flood, Riverine	M-H	4.12	171	4.07
Hail	M	2.50	98	1.42
Hurricane	M-H	4.44	163	4.18
Ice	M-H	4.23	81	1.98
Ice Jam & Associated Flooding	L-M	1.95	22	0.25
Landslide & Mudflow	L-M	2.08	12	0.14
Land Subsidence & Sinkholes	L-M	2.33	3	0.04
Lightning	M-H	3.62	98	2.05
Sea Level Rise	M	3.03	34	0.60
Thunderstorms (Summer Storms)	M-H	4.38	124	3.14
Tornado	M	2.59	165	2.47
Tsunami	M	2.60	10	0.15
Wildfire	L-M	1.93	147	1.64
Wind	M-H	4.44	99	2.54
Winter Storm / Snow / Blizzard	H	4.90	173	4.90

Winter storms, earthquakes, and riverine floods are directly addressed and evaluated in the greatest number of local plans and multi-jurisdiction plan annexes (173, 172, and 171, respectively – there are 173 available plans and annexes). Dam or levee failure, hurricanes, and tornadoes are addressed in the vast majority of plans (167, 163, 165, respectively), as

are wildfires and thunderstorms (147 and 124, respectively). Interestingly, drought is addressed in 150 plans, despite the fact that it was consistently rated as a low risk hazard. On the other hand, the fact that wildfire is addressed and assigned a low risk ranking in most plans obscures its high ranking in a small number of local plans.

Lightning, hail, and wind are addressed, either separately from or specifically within the context of other hazards like hurricanes and thunderstorms, in more than half the local plans (98 and 99, respectively).

At the other end of the range, land subsidence and sinkholes are addressed in only three local plans (Cheshire, New Haven, and Sharon). Tsunamis were each addressed in ten coastal plans, and landslides were evaluated in twelve plans for communities located primarily the Naugatuck Valley where old mill towns were developed on steep slopes flanking river valleys.

The range of possible "overall score" is one to five. Seven hazards scored greater than 4.0. These are flash floods, riverine floods, hurricanes, ice events, thunderstorms, wind events, and winter storms. Importantly, coastal flooding is addressed in a number of local plans for non-coastal communities, meaning a falsely low risk score was assigned; despite this the coastal flooding overall risk score is relatively high (3.98). When considering hazards statewide, accounting for the number of local plans that don't consider a particular hazard, the highest ranked hazards in terms of risk are winter storms, hurricanes, and riverine flood ("Weighted Score"). Considered collectively, it is clear that floods of all types, high wind events, and winter storms are of great concern to local communities.

Several of the hazard categories that were addressed in the local plans are not subject to detailed analysis in the State plan update. Of the hazards addressed in the update, average rankings in both the local and state analysis are comparable.

Future local plan updates may present an opportunity to address some of the ambiguity between hazard naming conventions if the State of Connecticut standardizes applicable hazard names or labeling. The State may encourage local plan revisions to approach classifying hazards in a similar fashion as done in the HIRA in the State plan update.

4.4 Assessment of Potential Losses

Local hazard evaluations are highly variable. As a result, each one has its own set of criteria to develop monetary loss estimates. Many of the first-generation local plans and annexes contained loss estimates only from previous damage events, while plans developed after 2010 have begun to utilize FEMA's Hazus program to model flooding, hurricane wind, and earthquake events and damages. At this point, the majority of local plans and annexes include Hazus results.

Table 4-3 and

Table 4-4 summarize loss estimates extracted from each local plan or annex. Table 4-3 lists annualized loss estimates, which were calculated either using Hazus software, through analysis of historic event losses and frequencies, by looking at relevant annual municipal budgets, or through estimation. Average loss value provided is for a single community. Loss estimates have not been adjusted to account for inflation.

Table 4-3: Local Plan Annualized Loss Estimates by Hazard Type

Hazard	Average	Number of Plans with Loss Estimates
Coastal	$470,120	7
Riverine	$118,742	16
Drought	$2,400	1
Dam Fail	$3,550	3
Earthquake	N/A	0
Hailstorm	N/A	0
Hurricane	N/A	0
Thunderstorm	$7,512	42
Wildfire	$8,699	13
Wind	$57,250	10
Winter Storm	$544,707	83
Tornado	$1,612	23

Table 4-4 lists other loss estimates. These estimates were calculated using a number of methodologies and they present losses for hazards with a variety of return periods. The "Methods" column summarizes both the loss calculation methodology and the return period as applicable. Average loss value provided is for a single community. Loss estimates have not been adjusted to account for inflation.

Table 4-4: Local Plan Other Loss Estimates by Hazard Type

Hazard	Method	Average	Number of Plans with Loss Estimates
Coastal Flood	Hazus: 1% Chance Flood	$238,150,654	26
	Specific Event*	$1,295,000	1
	Total FEMA Reimbursement**	$5,849,822	12
	Average Coastal Flood	$81,765,159	-
Riverine Flood	Hazus 1% Chance Flood	$45,073,650	168
	Specific Event*	$6,460,550	38
	10% of SFHA Property Value	$292,900,000	2
	Total FEMA Reimbursement**	$1,035,458	40
	NFIP Policy Value	$13,064,233	9
	Average Inland Flood	$71,706,778	-
Drought	Specific Event*	$62,000	2
Dam Failure	Hazus***	$50,519,167	12
	Property Value***	$183,092,625	4
	Historic/Reported	$12,397,892	13
	Average Dam Failure	$82,003,228	-
Earthquake	Hazus: Worst-Case****	$401,834,841	138
Hailstorm	Specific Event*	$2,728	12
Hurricane	Hazus: 50 Year	$2,319,091	16
	Hazus: 100 Year	$18,082,460	145
	Hazus: 500 Year	$89,346,372	80
	Hazus: 1938/Cat. 3	$45,512,903	25
	Specific Event*	$9,870,849	11
Thunderstorm	None	-	0
Wildfire	None	-	0
Wind	None	-	0
Winter Storm	Specific Event*	$244,445	16
Tornado	Specific Event*	$1,682,920	30
	Specific Event* (Estimate)	$5,000,000	11
	Average Tornado	$3,341,460	-

** Specific Event: losses from specific historic events were provided. Different communities provided losses from different events, and some plans provided losses from multiple events; in the latter case, losses were averaged.*
*** Total FEMA Reimbursement: includes all PA and NFIP reimbursements provided since community joined the program*
**** Dam failure losses calculated using HAZUS flood modeling or through property value estimation utilized either the 0.2% flood zone, the 1% flood zone, or calculated dam failure inundation areas.*
***** Some plans ran HAZUS for multiple earthquake scenarios; the worst-case scenario for each community was extracted for this summary.*

One continued goal of the State plan update is to standardize the data analysis process so that future state and local plan updates are consistent and comparable, including

recommendations for assigning annualized loss estimates for hazards not included in the Hazus software. Chapter 5 of this plan includes the relevant actions to reach this goal. Analysis in local plans has improved since the last State plan update, with every local plan providing at least one loss estimate, and many plans using comparable loss estimate methodologies.

5 Hazard Mitigation Strategy for 2019 –2024

5.1 Hazard Mitigation Goals, Objectives, and Strategies

The State of Connecticut is committed to reducing future damage from natural disasters through mitigation. The mission of Connecticut's Hazard Mitigation Program and this plan is to mitigate the impacts of natural hazards by minimizing loss of life and property damage. In 2007, the State identified three primary goals to focus its hazard mitigation efforts to assist in accomplishing its mission. These three goals were reaffirmed in 2010, and again in 2014, with slight modification, and included the following:

1. Promote implementation of sound floodplain management and other natural hazard mitigation principles on a state and local level.
2. Implementation of effective natural hazard mitigation projects on a state and local level.
3. Increase research and planning activities for the mitigation of natural hazards on a state and local level.

During the 2014 plan update process, the goals were again reaffirmed, with minor changes to the associated Objectives and Strategies. For the 2019 update, the SHMPT met on multiple occasions to discuss current natural hazard risks as well as the goals, objectives, strategies, and activities required to minimize those risks. The planning team agreed to again reaffirm the goal statements from 2014, but decided to again make some revisions and additions to the objectives and strategies for each goal. These changes were made to better consolidate and eliminate some overlap among strategies, and to help clarify their specific meaning. In some instances they were also expanded to cover possible new mitigation activities under consideration by the planning team.

Figure 5-1. Connecticut's planning team used interactive brainstorming exercises and breakout sessions to identify and evaluate mitigation activities in both 2014 and for this 2019 plan update.

The following goals, objectives, and strategies will serve as the road map for Connecticut to focus its hazard mitigation activities through 2024. The statements are based on (1) the review and consideration of previous mitigation goals, strategies and activities for 2014-2019; (2) the review of updated information for the hazard identification and risk assessment; (3) input and recommendations shared by the planning team during

stakeholder meetings for the 2019 plan update; and (4) results of the internet-based survey used for public participation.

It is anticipated that by working towards the goals set out in this plan, effective natural hazard mitigation measures will be implemented to protect residents of Connecticut where appropriate, and will promote responsible natural hazards mitigation throughout the state on both a regional and local level.

5.2 GOAL 1

PROMOTE IMPLEMENTATION OF SOUND FLOODPLAIN MANAGEMENT AND OTHER NATURAL HAZARD MITIGATION PRINCIPLES ON A STATE AND LOCAL LEVEL

Objective for Goal 1: To increase general awareness of Connecticut's natural hazards and encourage State agencies, regional entities, local communities, and the general public to be proactive in taking actions to reduce long-term risk to life and property.

Strategies for Goal 1:

Strategy 1.1 – Provide technical guidance to communities on hazard mitigation opportunities, with priority emphasis on Repetitive Loss and Severe Repetitive Loss properties, and with emphasis on new or improved development or redevelopment, including local floodplain ordinance enhancement and enforcement.

Strategy 1.2 – Conduct public outreach and provide educational opportunities to State agencies, local communities, and other stakeholders on existing natural hazards and the mitigation measures available to reduce hazard risks, including the use of RiskMAP products and new data from DEEP and CIRCA.

Strategy 1.3 – Strengthen, support, and enhance State policy, legislative efforts, and state-wide coordination and collaboration with other state agencies, COGs, academic institutions, research centers/think-tanks, and nonprofits to mitigate the effects of natural hazards and adapt to climate change. Initiate new policy, legislative, and collaboration / coordination efforts as needed.

Strategy 1.4 – Use State Agencies for Resilience (SAFR) to continue coordination and leverage resources across State agencies by integrating hazard mitigation, climate adaptation and resilience principles into other relevant plans, policies, or program activities.

Strategy 1.5 – Increase emphasis on Long Term Recovery Planning statewide in advance of future disasters.

Strategy 1.6 – Encourage less development in risk zones, statewide, by promoting the NFIP Community Rating System (CRS) and by encouraging open space planning. Also encourage low impact development tools and techniques, low-intensity uses of existing open space in risk areas, and the incorporation of floodplain resource management best management practices into local floodplain programs.

5.3 GOAL 2

IMPLEMENTATION OF EFFECTIVE NATURAL HAZARD MITIGATION PROJECTS ON A STATE AND LOCAL LEVEL

Objective for Goal 2: To enhance the ability of State agencies, regional entities, and local communities to reduce or eliminate risks to life and property from natural hazards through cost-effective hazard mitigation projects, including avoidance.

Strategies for Goal 2:

Strategy 2.1 – Refine State-level priorities and evaluation criteria for hazard mitigation project funding (with emphasis on Repetitive Loss and Severe Repetitive Loss properties) that is provided or administered by the State, including FEMA grant funds.

Strategy 2.2 – Identify, develop, and prioritize hazard mitigation projects including climate change adaptation strategies and relocation for State-owned facilities considered at high risk to natural hazards.

Strategy 2.3 – Develop, maintain and provide the best available data, training, and technical assistance to State agencies and local communities to assist in the identification, development, and implementation of cost-effective hazard mitigation projects, including relocation or siting of new facilities to avoid hazards, particularly when applying for Federal and State funds.

Strategy 2.4 – Increase and promote the availability of various funding mechanisms to support hazard mitigation project implementation, including Federal, State, and non-governmental sources, by increasing the use of Regional Emergency Planning Teams (REPTs) and subject matter experts to educate and involve elected officials.

Strategy 2.5 – Routinely monitor the implementation of hazard mitigation projects, tracking progress through project closeout and beyond to capture success stories (losses avoided) and lessons learned.

Strategy 2.6 – Increase coordination among state agencies, including state data officers, to more centrally disseminate data that is developed and maintained, in order to promote mitigation action.

5.4 GOAL 3

INCREASE RESEARCH AND PLANNING ACTIVITIES FOR THE MITIGATION OF NATURAL HAZARDS ON A STATE AND LOCAL LEVEL

Objective for Goal 3: To increase general awareness of Connecticut's natural hazards and encourage State agencies, local communities, and the general public to be proactive in taking actions to reduce long-term risk to life and property.

Strategies for Goal 3:

Strategy 3.1 – Promote natural hazard mitigation research, technical analysis (such as mapping), and planning activities that will improve or refine risk and vulnerability analysis for hazard mitigation, resilience and climate adaptation planning and implementation on a State, regional and local level.

Strategy 3.2 – Conduct outreach and provide educational opportunities to state agencies, local communities, regional entities and other stakeholders to assist in translating research and planning activities into practice, using the Councils of Governments (COGs), State Agencies for Resilience (SAFR) and Regional Emergency Planning Teams (REPTs) to help disseminate information.

Strategy 3.3 – Investigate climate change adaptation strategies as they affect natural hazard mitigation and State investment policies, and link hazard mitigation activities with climate adaptation strategies when appropriate and possible.

Strategy 3.4 – Research methods and take action to better engage the private sector and non-profit organizations in hazard mitigation planning activities on a State, regional and local level, including coordination with utility companies to better prepare for, mitigate against, and respond to natural hazard events.

Strategy 3.5 – Create a clearinghouse/database that contains data, research, and information from UCONN/CIRCA, OPM GIS, local resilience plans, local resilience initiatives, local hazard mitigation plans, as well as any evidence based best practices to increase transparency, promote best practices, and enable easy access for Connecticut communities.

5.5 Hazard Mitigation Activities for 2019–2024

Table 5-1 provides a summary of the recommended hazard mitigation activities developed by the planning team to achieve the above goals, objectives, and strategies, and to assist in reducing impacts from natural hazards which may impact the State. These include those activities which the State, including offices cutting across multiple departments and agencies, may implement as part of their ongoing work programs and contingent on available resources and/or funding, if applicable.

Table 5-1 includes the following information for each recommended activity:

1. **Activity #:** Identifies the unique number for the activity, with the first two digits correlating to the specific Goal and Strategy the activity is intended to help achieve. This helps to demonstrate how *each activity contributes to the overall State mitigation strategy*.
2. **Activity Description:** Provides a narrative description of the recommended mitigation activity. For activities that were carried over from the 2014 plan, the narrative also includes an update on the activity's current status in terms of implementation progress.
3. **Lead Agency:** Identifies the lead department and specific division/office assigned with primary responsibility for implementation of the activity.

4. **Estimated Cost (if applicable):** Provides a general estimate of the anticipated total costs required to complete the activity. In addition to dollar estimates, this may include "staff time" or "in-kind resources."
5. **Potential Funding Sources (if applicable):** Identifies potential funding sources to support implementation of the activity, including any known Federal, State or non-governmental sources.
6. **Timeframe for Completion:** Identifies the target timeline (duration) or specific completion date (month/year) for the activity. In some cases this may include the statement of "ongoing/continuous" for those actions already underway and/or to be continued as a *sustained* mitigation practice with no end date.
7. **Hazard(s) to be Addressed:** Identifies the specific natural hazard the recommended activity is designed to mitigate against. This may include a single, multiple, or all natural hazards identified in the plan.
8. **Priority Level:** Identifies the priority level (i.e., high, medium, low) assigned to the activity, based on the STAPLE-E evaluation and prioritization process described below.

5.6 Assessment of Recommended Mitigation Activities

As done in 2014, each mitigation activity listed in Table 5-1 was evaluated and prioritized according to the "STAPLE-E" evaluation method (Social, Technical, Administrative, Political, Legal, Economic, and Environmental). The specific criteria used in the application of the STAPLE-E method are provided in Appendix 5-1. In addition, the planning team considered the following factors in its general assessment of recommended mitigation activities:

1. Feasibility of implementation (both on a state and local level);
2. Potential mitigation gains that could be achieved by the activity; and
3. If the proposed activity would assist the State in achieving improved resource effectiveness and data collection, two current areas of constraint (in both the 2014 and this 2019 plan update) that have been noted within the current plan.

5.7 Implementation and Integration of Recommended Mitigation Activities

All of the mitigation activities listed in Table 5-1 have been deemed feasible with respect to their implementation or performance on a state or local level. Appendix 5-2 includes a mitigation ranking and action tracker for each of the strategies identified in Table 5-1. Each of the potential activities can be implemented independently of other proposed activities. In addition, each activity will support the improvement of an increasingly effective and comprehensive plan. However, the implementation of any of the proposed activities listed in Table 5-1 is completely dependent up availability of resources both monetary and other (e.g., staff, technical, supplies, etc.). This dependence on available resources will be a significant factor regarding their implementation and performance over the next five years. More information on funding sources for mitigation projects is available in Section 3.1.2 of this plan. Further feasibility analysis of individual activities will be performed prior to the implementation and performance of any activity. Similarly, the implementation of any proposed activity is contingent on confirmation that it satisfies the

aforementioned STAPLE-E evaluation criteria at the time of the proposed performance or implementation. This ensures the activity still has the necessary social, technical, administrative, political, legal, economic, and environmental support required even if conditions have changed since plan adoption.

The implementation of effective natural hazards mitigation requires ongoing planning and dedicated persistence both on a state and local level to maintain what has been done in the past, and to improve upon past efforts to strive for implementing the most protection possible from natural hazards. Planning and implementation require the use of historical data. At all times the State of Connecticut will strive to ensure that historical data at both the state and local level is protected and maintained.

The related strategies and activities outlined in this plan provide a guide to assist the State of Connecticut in working towards achieving its three identified hazard mitigation goals, and they will be implemented or initiated during the time period encompassing this plan update. The goals themselves are achievable, yet they require adequate resources such as financial and staff resources to achieve significant results. They also require planning, policy, and program integration across multiple state agencies.

The State also believes that continued and increased focus on climate change and adaptation techniques are an area of continued concern to which hazard mitigation strategies and activities must be linked. This will be accomplished through continued and increased coordination and plan integration across multiple state agencies, as deemed appropriate, and as identified and included in this plan as recommended hazard mitigation activities in support of Strategies 1.3 and 3.3.

Table 5-1: Recommended Hazard Mitigation Activities, 2019–2024

Activity #	Goal/Strategy	Activity Description	Lead Agency	Support Agencies	Estimated Cost*	Potential Funding Sources	Timeframe for Completion	Hazard(s) to be Addressed										Priority Level
								Tropical Cyclone	Tornado	Thunderstorm	Winter Storm	Flood	Dam Failure	Wildland Fire	Drought	Earthquake	Climate Change	
1	1.1	Review model ordinances and samples of higher standards language that communities can adopt into existing floodplain ordinances and building codes.	DEEP - Land and Water Resources Division / DCS	COGs	Staff time	Agency Operating Budgets	Evaluate annually					X					X	High
2	1.1	Conduct technical transfer and training associated with current extreme rainfall data.	USDA / Natural Resources Conservation Service		Staff time	Agency Operating Budgets	1-2 years					X	X				X	Low
3	1.1	Conduct technical transfer and training associated with available LiDAR data.	USDA / Natural Resources Conservation Service	DEEP / LWRD	Staff time	Agency Operating Budgets	1-2 years					X						Low
4	1.1	Encourage municipalities to adopt local water use restriction ordinances to ensure that proper water conservation measures are implemented during periods of severe to extreme drought and other water emergencies, in line with the Connecticut Drought Preparedness and Response Plan. Expand the local focus on drinking water vulnerability, with a particular emphasis on private wells.	DPH / Drinking Water Section	Water Planning Council / COGs	Staff time; minimal expense for outreach materials	Agency Operating Budgets	During onset of drought conditions								X			High
5	1.1	Launch an outreach campaign to promote FEMA's Community Rating System (CRS) as a means for local communities to soften the likely increase in many flood insurance policy rates resulting from new reforms to the National Flood Insurance Program (NFIP) enacted by Federal Legislation.	DEEP - Land and Water Resources Division	USACE / Silver Jackets	Staff time; minimal expense for outreach materials	Agency Operating Budgets	1 Year					X						High

6	1.1	Encourage local hazard mitigation plans to consider continuity of agricultural operations during and following hazard events.	DESPP / Emergency Management and Homeland Security		Staff time; minimal expense for outreach materials	Agency Operating Budgets	1-5 years, initiated at each updated plan review				X				X		X	Low
7	1.2	Communicate the importance of natural hazard mitigation to agricultural producers through the Department of Agriculture's weekly newsletter. This would consist of articles with links to useful websites such as DEEP and "ReadyAg" (available from PSU website).	DAG / Bureau of Agricultural Development & Resource Preservation / COGs / Working Lands Alliance		Staff time; minimal expense for outreach materials	Agency Operating Budgets	6 months, then annually thereafter	X	X	X	X	X	X	X	X	X	X	Low
8	1.2	Develop a body of customizable presentations, social media templates, Flood Insurance factsheets and short workshop educational materials that could be utilized on a scheduled basis. While these could be developed for multiple hazards, the emphasis of this activity is on flood mitigation and climate change adaptation.	Connecticut Association of Flood Managers DEEP - Land and Water Resources Division	DEEP Land and Water Resources Division / USACE / Silver Jackets / CT Insurance Department	Staff time; minimal expense for outreach materials	Agency Operating Budgets	1 year, then 1 presentation annually					X					X	High
9	1.2	Investigate the possibility of holding the CFM exam and CFM courses on an annual basis for interested persons.	Connecticut Association of Flood Managers	DEEP/LWRD	Staff time	Agency Operating Budgets	Annually					X						Low
10	1.2 1.3 3.2	Develop educational tools to inform decision makers on the value of acquiring, maintaining, and increasing climatological data collection, including hydrologic (e.g. stream gage) data, and the continuation of the Land and Water Resources Division (previously OLISP) sentinel monitoring program to help provide early warning of climate change impacts. Communicate with USGS to maintain monitoring systems. This activity is linked to Activity #28.	CHMC and Water Planning Council / CIRCA	DEEP / Land and Water Resources Division / SAFR	Staff time; minimal expense for outreach materials	Agency Operating Budgets	1-2 years	X	X	X	X	X			X		X	Medium

11	1.3	Continue to mitigate and reduce the number of repetitive loss properties. As noted in this plan, CT will do the following: − Seek Federal funds to mitigate through elevation and acquisition, RL and SRL properties − Encourage sub applicants to prioritize RL and SRL properties − As grantee, give priority to RL and SRL properties − When BCAs of RL and SRL property applications are even, priority ranking will be given to RL and SRL properties − Identify outside funding for mitigating RL and SRL properties − Continue to advocate for NRCS and State Bond Funding for mitigating RL and SRL properties − Communicate acquisition process to municipalities − Assist municipalities with Benefit Cost Analysis for RL and SRL properties	DESPP / Emergency Management & Homeland Security	DEEP / Land and Water Resources / Flood Management Section	$20-40k	FEMA (FMA, PDM, or HMGP); in-kind staff resources	1-2 years					X						High
12	2.1	Develop implementation strategy for Public Act 13-15, which requires consideration of the ways in which a water pollution control project mitigates the effects of sea level rise. The Act also requires that the list of priority water quality projects include the necessity and feasibility of implementing measures designed to mitigate the impact of a rise in sea level over the projected life span of such project.	DEEP Municipal Water Pollution Control Section	DEEP / Land and Water Resources Division / OPM / DAS	Staff Time	CT Clean Water Fund	1-2 years	X				X					X	Medium
13	2.1	Develop project category priorities for hazard mitigation funding administered by the State regardless of funding source, and then design consistent evaluation criteria to be used during application reviews for various programs as required (i.e., HMGP Administrative Plan), recognizing there will be differences in program eligibility, etc.	DESPP / Emergency Management & Homeland Security / CT Interagency Hazard Mitigation Committee	DAS / Division of Construction Services / DEEP / DOH	Staff time	Agency Operating Budgets	Annually and post-disaster, whichever is more frequent	X	X	X	X	X	X	X	X	X	X	High

14	2.1	Through communications with other state agencies and communities with FEMA-approved Natural Hazard Mitigation Plans, develop a list of potential mitigation projects that can be maintained and assessed for further development upon availability of funding sources. This will also help assist in future NHMP planning by identifying when areas and facilities of concern exist, and developing metrics ahead of time.	DESPP / Emergency Management & Homeland Security	DAS / Division of Construction Services / DOH / COGs	Staff time	Agency Operating Budgets	Annually and post-disaster, whichever is more frequent, and routinely during plan reviews	X	X	X	X	X	X	X	X	X	X	High
15	2.2	Acquire and install emergency backup generators and/or renewables and alternate energy sources at state-owned critical facilities and gas stations.	DAS / Division of Construction Services	DEEP / OPM / Department of Consumer Protection / DOT	<$75k/ generator	FEMA (HMGP)	5 years	X	X	X	X	X	X	X	X	X	X	High
16	2.2	Conduct phragmites control/invasive plant control (herbicide and mowing) on state-owned land tidal and freshwater marshes to reduce fuel load and wildfire risk in tidal areas for three year period to control this invasive species. Reduce phragmites by 50% in year one; 40% in year two; 10% in year three with 100% reduction after three years.	DEEP / Bureau of Natural Resources	DAS / Division of Construction Services / DOT	$600/acre Total estimated cost is $2.7 million over three years	Annual Operating Budgets	3 years							X				Low
17	2.3	Continue to direct communities to tools to support improved local vulnerability and risk assessments to support hazard mitigation planning and the development of fundable hazard mitigation projects including RL and SRL acquisitions. Build on successful delivery of online Adaptation Resource Toolkit (ART) and maintain related training workshops.	DESPP / Emergency Management & Homeland Security	DEEP / Land and Water Resources / Flood Management Section	Staff time	Agency Operating Budgets, Federal Grants	1-3 years	X	X	X	X	X	X	X	X	X	X	Medium
18	2.3	Convene a forum of state agencies to coordinate and evaluate gaps in policies and in climatalogical data, to establish priorities, and to identify strategies to secure funding for necessary enhancements. This activity is linked to Activity #10.	SAFR	DEEP / Land and Water Resources, Water Planning Council / CIRCA	Staff time	Agency Operating Budgets	1 year	X	X	X	X	X	X	X	X		X	Medium

19	2.3	Promote the capture and use of hydrologic monitoring data for improved Benefit-Cost Analysis (BCA) model population at the state and local level (e.g. high water marks, gauge data, historical damages from all events, recurrence intervals, etc.). Also, expand efforts to include similar data for other hazards, and include the quantification of environmental benefits (according to FEMA Mitigation Policy #FP-108-024-01) to increase Benefit to Cost Ratios for eligible projects.	DESPP / Emergency Management & Homeland Security	USGS / DEEP	Staff Time	Agency Operating Budgets	Annually, or, as data becomes available and in conjunction with BCA reviews					X							Medium
20	2.3	Assist owners/operators of critical facilities, such as municipal water pollution control facilities (WPCFs), and emergency facilities, to pursue grant funds to relocate, flood proof, or otherwise protect electrical and mechanical systems to minimize or eliminate service disruption during and after potential hazard events.	DEEP- Land and Water Resources Division	Municipalities / COGs	Staff time	Agency Operating Budgets	Conduct outreach on an annual basis, and incorporate into all notifications of funding availability	X			X	X					X	High
21	2.4	Create a central repository and web-based portal dedicated to identifying and procuring funding from all available sources. This activity is linked to Activity #17 and Activity #22.	Governor's Office / OPM	LTR Committee	Staff time	Agency Operating Budgets	1 year	X	X	X	X	X	X	X	X	X	X	Low
22	2.4	Through working with the CT IHMP Planning Team, develop a list of potential funding sources available on a state and federal level for natural hazards mitigation planning activities and projects with emphasis on RL and SRL properties. This activity is linked to Activity #21.	DESPP / Emergency Management & Homeland Security	DEEP / Land and Water Resources / Flood Management Section / LWRD / DOT	Staff time	Agency Operating Budgets	1 year	X	X	X	X	X	X	X	X	X	X	Low

23	2.4	Assist communities and state agencies to pursue funding opportunities to develop advanced research and plans in the area of natural hazards mitigation. Planning activities included under this section would be: standalone plans which can assist in enhancing existing Natural Hazards Mitigation Plans (e.g., debris management plans, evacuation and sheltering plans, hazards studies and evaluations (including recommendations) which are not part of existing approved plans). Promote comprehensive inclusion and connectivity of state, regional, and local hazard mitigation planning, to help strengthen coordination and incorporation of ideas and BMPs and avoid conflicts between various planning efforts.	DESPP / DEMHS	DEEP / Land and Water Resources Division	Staff time	Agency Operating Budgets	1-3 years, in sync with review or EM and MT plans, and during CAVs, workshops and other outreach activities	X	X	X	X	X	X	X	X	X	X	Low
24	2.4	Encourage communities to pursue funding opportunities to develop FEMA approved Natural Hazards Mitigation Plans which promote addressing RL and SRL properties as well as the integration of climate adaptation strategies with conventional hazard mitigation techniques.	DEEP	DESPP / Emergency Management & Homeland Security; DEEP / Land and Water Resources Division	Staff time	Agency Operating Budgets	1-5 years as plan updates are completed and reviewed	X	X	X	X	X	X	X	X	X	X	High
25	2.5	Maintain a tracking system of submitted FEMA grant project/planning applications, to help analyze the types of projects and the mitigation needs that continue to exist within the State. This Activity is linked to Activity #27.	DESPP / Emergency Management & Homeland Security		$60-80k	FEMA (HMGP)	1-2 years	X	X	X	X	X	X	X	X	X	X	Low
26	2.5	Develop an evaluation process and implement said process to measure the results from the implementation of various activities as listed in the State NHMP.	DEEP / SAFR / CIRCA	DESPP / DEMHS	Staff time	Agency Operating Budgets	1 year	X	X	X	X	X	X	X	X	X	X	Low
27	3.1	Continue planning and development of a database to assist with the storage and maintenance of risk and hazard information from local and multi-jurisdictional hazard mitigation plans. This Activity is linked to Activity #25.	DEEP / OPM	CIRCA / COGs	Staff time	Agency Operating Budgets	1-5 years, with annual assessment during plan monitoring	X	X	X	X	X	X	X	X	X	X	Low

28	3.1	Encourage municipalities and COGs to conduct watershed-based hydrologic and hydraulic studies to evaluate potential flood mitigation alternatives along river and stream corridors.	DEEP- Land and Water Resources Division	University pf Connecticut / COGs	Staff time	State Bond Funds or other sources – although funding for implementation will have to be sought	1-5 years					X						Low
29	3.1	Develop a system to facilitate the rapid capture, delivery, and documentation of post-storm impacts to coastal areas by local teams and citizens in the field and develop an interactive webpage or other medium for collecting flood information from the general public or other entities. This would include photos and other types of information which would be a valuable asset in documenting impacts from natural hazards, collected through various means such as social networking. Use the latest technology, such as iPads and community GIS, to support these initiatives.	DEMHS	DEEP / Land and Water Resources / Flood Management Section; DESPP / Emergency Management & Homeland Security	Staff time	Agency Operating Budgets	2 years	X			X	X					X	Medium
30	3.1	Upon completion of DOT's systems-level vulnerability assessment in support of the Climate Change and Extreme Weather pilot project in Litchfield County, repeat the process in the remainder of the state. This activity is linked to Activity #32.	DOT	HUA / Uconn	High	FHWA	5 years			X		X					X	Low
31	3.1	Increase hydrologic monitoring in the state relative to precipitation, surface groundwater, and tidal gauges to enhance the statewide data collection effort and improve long term trend analysis for climate change assessments, predictive modeling and hazard mitigation. Communicate with USGS to maintain monitoring stations. This activity is linked with Activity #35.	CIRCA	U.S.G.S	High	Legislative Appropriation	5 years					X			X		X	Low

32	3.1	Develop updated/improved storm surge hazard modeling to supplement sea level rise inundation scenarios. Share this modeling with state agencies and municipalities.	CIRCA	DESPP / Emergency Management & Homeland Security; DEEP – Land and Water Resources Division	Staff time	Agency Operating Budgets $1 Million for Study $300K?	3 years	X			X							Medium
33	3.1	Use shoreline transect data to map coastal erosion zones and develop applicable outreach products.	DEEP		Staff time	Agency Operating Budgets	3 years					X					X	Low
34	3.1	Continue to identify head-of-tide habitat within Connecticut and monitor the change in this habitat due to climate change through sentinel monitoring in order to determine those communities that may endure increased risk from coastal storms and associated flooding. LWRD is currently funding multiple monitoring and data synthesis projects in support of this activity.	DEEP - Land and Water Resources Division – Coastal Resources Section		Staff time	Agency Operating Budgets	1-2 years					X					X	Low
35	3.1	Identify and map the locations of headwater, main stem and coastal dams, culverts, bridges, and other structures or land modifications that contribute to flood damage and act as barriers to habitat connectivity, and assess the feasibility of removal or modification of these structures. This activity is linked to Activity #55.	DEEP - Land and Water Resources Division		Staff time	Agency Operating Budgets	3 years					X						Medium
36	3.1	Create a database of survey elevation points in coastal areas.	DOT		Medium	Agency Operating Budgets	3 years	X				X					X	Medium
37	3.2	Create a literature review of various FEMA publications to be placed on CT DEEP's flood management webpage. Include a short description of the publication and a direct link for convenient downloading of the document, or a note to contact CT DEEP's Flood Management Section to obtain a copy.	DEEP - Land and Water Resources Division	DEMHS	Staff time	Agency Operating Budgets	3-5 years					X					X	Low

38	3.2	Finalize StormSmart Coasts CT site and perform outreach to encourage use by local communities and others to reduce risk.	DEEP - Land and Water Resources Division		Staff time	Agency Operating Budgets	2 years	X			X	X					X	Low
39	3.3	In coordination with local communities, recommend categorical (e.g., wastewater, energy) and site-specific options for adaptation from the projected impacts of climate change and occurrence of natural hazards for public infrastructure (including flood protection structures). Adaptation and hazard mitigation alternatives should include the estimated costs associated with the options evaluated to be the most viable for implementation purposes.	DEEP - Land and Water Resources Division	OPM	Staff time	Agency Operating Budgets	2-5 years					X			X		X	Low
40	3.3	Encourage education and community participation in adaptation, low impact development, and flood management through existing networks and partnerships including the CT Climate Education Communication Committee. This includes coordinating LWRD's coastal community adaptation and risk mitigation work with educational place based student experiences through CT Green Leaf in K-12 to increase participation and maximize local solutions.	DEEP - Land and Water Resources Division	CT Green LEAF	Staff time	Agency Operating Budgets	1-3 years	X			X	X					X	Low
41	3.4	Develop and deliver Micro-grid Pilot Program Trainings.	DEEP / Bureau of Energy and Technology	Utilities	$25,000	Microgrid Grant and Loan Pilot Program; participating electric utilities	2 years	X	X	X	X							Medium
42	3.4	Coordinate with water utilities to more actively promote water conservation measures with their customers, especially now that new legislation allows them to recover revenue while encouraging conservation.	DPH / Drinking Water Section	Water Planning Council	Staff time	Agency Operating Budgets	Annually, but particularly during drought conditions or other water emergencies								X			Medium

43	1.1 1.4 2.1 2.2 2.3 3.3	Local School Construction Grant Program and School Safety Infrastructure Council: • Identify and assess existing public school facilities that could be impacted by natural hazards (including climate change). Correlate identified schools with the School Building Project Priority Lists; identify mitigation strategies for these projects early on in the grant process. • For new grants involving siting a new school, provide and encourage the use of an interactive web based mapping portal for local school districts to use during site selection. Encourage early coordination with DAS Environmental Planning and GIS Services Unit. • Should facilities be located within natural hazard areas, request an assessment of "no feasible or prudent alternative;" encourage higher design standards above minimum criteria for new schools or "renovated as new." • Identify long-term climate change adaptation strategies for each structure/facility.	DAS / Office of School Facilities	DEEP / LWRD/ Flood Management Section	Staff time	Agency Operating Budgets	1-5 years		X		X	X	X				X	Medium

44	1.1 1.4 2.1 2.2 2.3 3.3	Sustainable State Facilities Initiative: • Identify, develop, and prioritize a plan for state facilities' potentially impacted by natural hazards (including climate change) • Assess the risks in relation to the physical structures, the agency's long-term capital planning plans, building life span, etc. • Develop specific mitigation strategies for each structure/facility as part of the plan utilizing existing hazard data, identify timeframe for implementing the strategies, and include estimated mitigation costs. • Identify long-term climate change adaptation strategies for each structure/facility.	DAS / Environmental Planning & GIS Services Unit		Staff time	Agency Operating Budgets	1-5 years		X		X	X	X				X	High
45	1.1 1.3 1.4 2.2 2.3 3.1 3.3	Conduct geophysical research to investigate, classify, and map soil stability and susceptibility to liquefaction during seismic events to assist with future hazard mitigation planning efforts.	DEEP / Geological Survey	USGS	$~50K/yr for 3 years	FEMA (NEHRP)	3 years from support received, with annual progress reporting					X			X	X		Medium
46	1.3 1.4 2.2 2.3 3.1 3.2 3.3	Improve identification of escarpments susceptible to landslide and fluvial erosion risk, utilizing geologic, soils, and elevation data. This activity will provide improved landslide and mass wasting risk estimates, to produce a more comprehensive view of landscape stability during extreme weather events and subsequent impacts.	DEEP / Geological Survey	USDA / Natural Resources Conservation Service	$40-50K	USDA, FEMA	2 years from support received, with annual progress reporting					X			X	X	X	Medium

47	1.1 3.1	Identify and map extent of historic underground mining operations in the State; assess reclamation and current land use relative to risk of land subsidence and mine collapse for the estimated 23 historic underground mining operations in Connecticut. Project deliverables will include georeferenced site maps and assessment reports, as well as a summary of current conditions and potential ground collapse hazards in these areas.	DEEP / Geological Survey	Office of the State Archeologist; State Historic Preservation Office	$40k	Agency Operating Budgets	12-18 months, contingent on funding and resource availability					X			X	X	X	Low
48	1.1 1.2	Promote consumer awareness of the NFIP and private flood insurance in order to mitigate against the economic impact of natural hazards.	Insurance Department		Staff Time	Agency Operating Budgets	1 year					X						Medium
49	2.3 3.2 3.5	Compile recent plans that include independent climate change assessments (State Water Plan [Water Planning Council] and Drinking Water Vulnerability Assessment and Resiliency Plan [CIRCA/UConn/CT DPH]) and then use the combined resources to support the action items within those plans.	SAFR	DPH / Water	Staff Time	Agency Operating Budgets	Ongoing	X	X	X	X	X	X	X	X		X	Low
50	1.1 3.1	Evaluate slope failure, soil erosion potential, and escarpment identification hazards in Connecticut through integrated mapping.	DEEP / State Geological Society		$40k	Agency Operating Budgets	1 year					X					X	Medium
51	2.6	Support New England Seismic Network with a new technical assistance and maintenance agreement with Weston Observatory of Boston College. This will provide local expertise and rapid response to seismic events in CT.	DEEP / State Geological Society		$45k for five years	NESEC	5 years									X		Low
52	1.4 2.6 3.1	Integrate mitigation plan requirements and actions into other appropriate planning mechanisms such as comprehensive plans and capital improvement plans.	OPM	DESPP / DEMHS	Staff Time	Agency Operating Budgets	Annually	X	X	X	X	X	X	X	X	X	X	High

53	1.1 3.1	Support mitigation projects that will result in protection of public or private property from natural hazards. Eligible projects include but are not limited to: 1. Acquisition of flood prone property 2. Elevation of flood prone structures 3. Minor structural flood control projects 4. Relocation of structures from hazard prone areas 5. Retrofitting of existing buildings, facilities, and infrastructure 6. Retrofitting of existing building and facilities for shelter 7. Critical infrastructure protection measures 8. Stormwater management improvements 9. Advanced warning systems and hazard gauging systems (weather radios, reverse-911, stream gauges, I-flows) 10. Targeted hazard education 11. Wastewater and water supply system hardening and mitigation.	CT Interagency Hazard Mitigation Committee / DESPP/DEMHS / DEEP	DCS	Staff Time	Agency Operating Budgets	Annually	X	X	X	X	X	X	X	X	X	X	High
54	1.2 2.4 3.1	Conduct new or updated surveys of historic resources to better understand their vulnerability to natural hazards.	DECD-SHPO		Staff / Consultant Time	Agency Operating Budgets	3-years					X					X	Medium
55	1.2 2.2 3.2	Undertake a targeted outreach of owners and stewards of historic properties to reduce the vulnerability of these assets to natural hazards.	DECD-SHPO		Staff / Consultant Time	Agency Operating Budgets	3-years					X					X	Low
56	1.2 1.3 3.4	Develop educational materials and conduct outreach to businesses throughout the state promoting toxic chemical reduction, increased safety and use of best management practices in order to increase resilience, reduce potential for pollution from chemical releases and protect public health and the environment especially during flooding events, as well as increase continuity/viability of business operations after a hazard event..	DEEP - Pollution Prevention	DESPP/ DEMHS / Regional Emergency Planning Teams	Staff Time	Agency Operating Budgets	1 year	X		X		X	X				X	Medium
57	1.2 1.3 3.4	Encourage COGs and municipalities to identify businesses at risk from natural hazards and promote utilizing educational materials targeted towards toxic chemical reduction, increased safety and best management practices in order to reduce contamination, mitigate impacts of natural hazards especially during flooding events, as well as increase continuity/viability of business operations after a hazard event.	DEEP - Pollution Prevention	DESPP/ DEMHS / COGs	Staff Time	Agency Operating Budgets	Annually	X		X		X	X				X	High

58	1.3 2.2 2.4	Through the recently institutionalized Silver Jackets initiative, identify at least one to two projects for funding annually in coordination with all members.	DESPP/ DEMHS / USACE	DEEP	Staff Time	Agency Operating Budgets/ USACE	Annually	X	X	X	X	X	X	X	X	X	X	Medium
59	1.3	Increase support for state-level cultural and natural resources initiatives to increase resiliency of cultural and natural resources from disasters. Expand SHPO resiliency-focused technical assistance project completed in 2018 to northern four counties.	DECD-SHPO	DEEP	Staff / Consultant Time	Agency Operating Budgets/ Disaster Supplementals / CIRCA	3-years	X	X	X	X	X	X	X	X	X	X	Medium
60	1.3	Develop standards for building nature-based solutions. This activity is linked to Activity #26.	DAS / DEEP		Staff Time	Agency Operating Budgets	5-years	X	X	X	X	X	X	X	X	X	X	Low
61	1.3	Integrate considerations of Public Health into all resilience planning and emergency response. Examples of considerations include drinking water access, widespread contamination and pollution post-natural hazard event, and debris management by municipalities.	DPH / DESPP/ DEMHS	DOT / DPW	Staff Time	Agency Operating Budgets	Annually	X	X	X	X	X	X	X	X	X	X	Medium
62	1.2 1.3 1.4	Evaluate and improve CT emergency response planning. Considerations should include improvement of rapid communication regarding extreme events (with coordination with organizations such as NWS), quickly reopening blocked roads and evacuation routes, efficient and safe transportation to shelters, use of resilient corridors. Ensure effective winter storm management, including snow removal and salt use. Focus on vulnerable populations in all emergency response planning.	DESPP/ DEMHS / DPW / DOT	NWS	Staff Time	Agency Operating Budgets	Annually	X	X	X	X	X	X	X	X	X	X	Medium
63	1.4 3.1	Update all state and local plans relating to hazard mitigation planning and resilience. Incorporate the latest data on hazards, climate change, land use, build environment, etc. Includes plans such as the CT Climate Preparedness Plan and the State Data Plan.	DESPP/ DEMHS / DEEP / Connecticut Data Analysis Technology Advisory Board	DPW / DOT	Staff Time	Agency Operating Budgets, HMA	Annually	X	X	X	X	X	X	X	X	X	X	High

64	3.1	Bedrock fracture mapping in the Plainfield and Danielson area to better characterize the subsurface nature of the geology in the area of recent Eastern CT seismic swarm.	DEEP / State Geological Society		$40K	USGS National Cooperative Geologic Mapping Program, NEHRP	1 year, from onset of funding									X		Low
65	3.1	Depth of unconsolidated materials mapping from LIDAR digital elevation models (depth to bedrock)	DEEP / State Geological Society		$45k per year, for 3 years	FEMA, USGS, NESEC	3 years, from onset of funding									X		Low
66	3.1	In all state and local hazard mitigation plans and updates, include sea level rise scenarios for consideration and analysis, as required by PA 18-82. Plan mitigation efforts to include this analysis as a factor of safety.	DEMHS / COGs	Municipalities / DEEP	Staff Time	Agency Operating Budgets / FEMA HMGP Grants	Ongoing					X				X		Medium

5.8 Progress in Hazard Mitigation Activities from 2014–2019

Table 5-2 provides a summary of the progress and current status of those hazard mitigation activities included in the previous (2014) plan. This includes activities which have been carried over for implementation in 2019-2024, as noted in the table under "Current Status." A list of other past activities pursued for natural hazard mitigation by the State and local communities can be found in Appendix 5-3.

Table 5-2 includes the following information for each hazard mitigation activity:

1. **Activity #:** Identifies the unique number for the activity, with the first two digits correlating to the specific Goal and Strategy the activity was intended to help achieve from the 2014 plan.
1. **Activity Description:** Provides a narrative description of the mitigation activity from the 2014 plan.
2. **Lead Agency:** Identifies the lead department assigned with primary responsibility for implementation of the activity.
3. **Current Status:** Describes the current implementation status of the activity, including whether the action was completed, completed/to be continued, partially completed/in progress, deferred, deleted, or deemed an ongoing/continuous activity.
4. **Current Status Description:** Provides a narrative description of the implementation status in 2018.
5. **Priority Level:** Identifies the priority level (i.e., high, medium, low) assigned to the activity, based on the STAPLE-E evaluation and prioritization process completed for the 2014 plan.
6. **Carry Over?**: Identifies whether the activity is to be carried over from the 2014 plan to the 2019 plan.
7. **2014 Activity #:** For those activities to be carried over and/or integrated with an activity for implementation in 2019-2024, identifies the Activity # as listed within Table 5-1.
8. It is important to note that some previous activities, while they may be continued, have been moved to Chapter 3 (Capabilities Assessment) because they are more appropriately considered ongoing program activities. These activities have been highlighted with light gray shading. Any previous activities which have been deleted since the 2014 plan are highlighted in dark gray shading.

Table 5-2: Progress in Hazard Mitigation Activities, 2014–2019

2014 Activity #	Activity Description	Lead Agency	Current Status	Current Status Description	2014 Priority Level	Carry Over	2019 Activity Number
1	Review model ordinances and samples of higher standards language that communities can adopt into existing floodplain ordinances.	DEEP - Land and Water Resources Division	Partially Completed, Continue	Done – SB-9 – passed both chambers SB-7, new climate and sea level rise standards Keep in as a review annually New legislation should not affect this annual activity	High	Yes	1
2	Conduct technical transfer and training associated with current extreme rainfall data.	USDA / Natural Resources Conservation Service	Partially Completed, Continue	Transfer and Training will continues as better data becomes available/evolves	Medium	Yes	2
3	Conduct technical transfer and training associated with available LiDAR data.	USDA / Natural Resources Conservation Service	Partially Completed, Continue	Transfer and Training will continues as better data becomes available/evolves	Medium	Yes	3
4	Encourage municipalities to adopt local water use restriction ordinances to ensure that proper water conservation measures are implemented during periods of severe to extreme drought and other water emergencies, in line with the Connecticut Drought Preparedness and Response Plan.	DPH / Drinking Water Section	Partially Completed, Continue	This has been partially completed with respect to encouraging municipalities to do this. However, only some have been receptive. Greenwich, Stamford, Darien, and New Canaan were required by DPH to adopt ordinances during the 2015-2016 drought. Other towns such as Simsbury have attempted to adopt ordinances voluntarily. Note that the Connecticut Drought Preparedness and Response Plan has been under revision for several years. It is now in final review and will be adopted in early 2019.	High	Yes	4

5	Launch an outreach campaign to promote FEMA's Community Rating System (CRS) as a means for local communities to soften the likely increase in many flood insurance policy rates resulting from new reforms to the National Flood Insurance Program (NFIP) enacted by the Biggert-Waters Flood Insurance Reform Act of 2012 (BW-12).	DEEP - Land and Water Resources Division	Partially Completed, Continue	Underway. WestCOG and SCCOG have received grants to assist their communities. CIRCA is looking at providing funding for other communities to assist with joining CRS. There was a training June 4-7, 2018. This was initiated in 2018 with the support of DEEP of efforts by SCCOG, WestCOG; CAFM with the presentation of EMI's CRS course for community officials; and working with RiverCOG on a CRS initiative that focuses on affiliated communities and open space. DEEP and CAFM have also sponsored trainings on topics associated with CRS including elevation certificate workshop (July 2019); and DEEP has been promoting CRS when performing CAVs and CACs.	Medium	Yes	5
6	Encourage local hazard mitigation plans to consider continuity of agricultural operations during and following hazard events.	DESPP / Emergency Management and Homeland Security	Deferred	No action has been completed.	Medium	Yes	6
7	Communicate the importance of natural hazard mitigation to agricultural producers through the Department of Agriculture's weekly newsletter. This would consist of articles with links to useful websites such as DEEP and "ReadyAg" (available from PSU website).	DAG / Bureau of Agricultural Development & Resource Preservation	Deferred	No action has been completed.	High	Yes	7
8	Develop a body of customizable presentations, social media templates, Flood Insurance factsheets and short workshop educational materials that could be utilized on a scheduled basis. While these could be developed for multiple hazards, the emphasis of this activity is on flood mitigation and climate change adaptation.	Connecticut Association of Flood Managers DEEP - Land and Water Resources Division	Partially Completed, Continue	There has been a lot of training activity but no "canned" presentations. Refresh as a new strategy, adding social media, DOI, docs about flood insurance moon shot and other areas, keep in as deferred. Add in coordination with CAFM DEEP has a set of presentations which are available for presentations. However, additional work needs to be done to ensure all information in said presentations are current and all presentations are located in one main presentation folder on LWRD's shared drive (internal computer drive).	High	Yes	8
9	Investigate the possibility of holding the CFM exam on an annual basis for interested persons.	Connecticut Association of Flood Managers	Partially Completed, Continue	CFM Exams have been offered multiple times since 2014. Changed to do annually, and changed responsible party to CAFM with support from DEEP LWRD	High	Yes	9

10	Investigate the possibility of holding an annual short CFM refresher course for interested persons who desire to take the CFM exam.	Connecticut Association of Flood Managers	Partially Completed, Continue	CFM refreshers have been offered since 2014. Changed to do annually, and changed responsible party to CAFM with support from DEEP LWRD. This activity will be combined with Activity #9 in the 2019 Activities for efficiency.	Medium to High	No	N/A
11	Develop educational materials on successful hazard mitigation projects, and integrate these with other readily available online resources such as StormSmart Coasts, etc.	DESPP / Emergency Management & Homeland Security	Cancelled	During the May 9, 2018 meeting, the committee determined that this should be dropped. However, the CRCOG HMP Update (underway) is including eight fact sheets on successful mitigation projects. These can be used by DEMHS and DEEP.	Medium to High	No	N/A
12	Investigate the development of a series of training media products that introduce, explain, and train interested persons on natural hazards, mitigation, NFIP program, reading flood maps, federal-state grant programs and other related issues	DEEP - Land and Water Resources Division	Cancelled	Deleted and replaced with a new strategy in the 2019 update, to be led by the Insurance Dept. New strategy designed to promote consumer awareness of flood and other insurance.	High	No	N/A
13	Develop educational tools to inform decision makers on the value of acquiring, maintaining, and increasing climatological data collection, including hydrologic (e.g. stream gage) data, and the continuation of the OLISP (now Land and Water Resources Division) sentinel monitoring program to help provide early warning of climate change impacts. This activity is linked to Activity #28.	CHMC and Water Planning Council	Partially Completed, Continue	While not completed formally as described, action toward this activity is underway and it will be carried forward.	High	Yes	10
14	Develop regulations and implementation guidance, and public outreach materials, for new legislation requiring inundation maps and Emergency Action Plans (EAPs) for high and significant hazard dams.	DEEP Water Planning and Management Division - Dam Safety Section	Completed	Completed – Regulations and webinar trainings.	High	No	N/A

15	Continue to improve on Statewide Repetitive Loss and Severe Repetitive Loss Strategy to mitigate and reduce the number of repetitive loss properties. As noted on pages 155-156 of this plan, CT will do the following: − Seek Federal funds to mitigate through elevation and acquisition, RL and SRL properties − Encourage sub applicants to prioritize RL and SRL properties − As grantee, give priority to RL and SRL properties − When BCAs of RL and SRL property applications are even, priority ranking will be given to RL and SRL properties − Identify outside funding for mitigating RL and SRL properties − Continue to advocate for NRCS and State Bond Funding for mitigating RL and SRL properties	DESPP / Emergency Management & Homeland Security	Partially Completed, Continue	All of the bulleted items are advanced each year.	High	Yes	11
16	Based on future forecast modeling for increased precipitation, storminess, and sea level rise, develop and propose policies to reduce risks for new development, including consideration towards relocating structures or reducing existing hazards within inundation areas with increasing risk. Policies should also address appropriate use of federal and state mitigation monies.	CIRCA	Completed	CIRCA and DOH provided grants to RiverGOG for completion of a statistical flood susceptibility model. Refinements are being considered. SHPO completed a project with Disaster Supplemental funding to look at the impact of SLR (among other things on Historic and Cultural Resources. Also, SB-9 outlines new climate and sea level rise standards and new requirements for State and federally-funded (State pass-through) projects in CT	Medium	No	N/A
17	Identify partners to help complete acquisition of LiDAR (processed to 1' contours or better) for 100% state coverage.	CLEAR	Completed	There is now 100% state coverage.	Medium	No	N/A
18	Support the State-level Cultural and Natural Resources Recovery Function to increase resiliency of cultural and natural resources from disasters.	DECD-SHPO	Completed	DECD-SHPO completed a project to identify at risk historic and cultural resources to flooding, SLR, winter weather, and wind for the four coastal counties. It included a digital inventory of resources, best practices and incorporation of natural hazards resilience into the State Historic Preservation Plan. A new strategy has been added to build upon this project.	High	No	N/A

19	Implement and institutionalize a coordination program similar to the USACE's "Silver Jackets" between all federal and state agencies, including: NRCS, FEMA, USACE, Long Term Recovery Committee, Natural and Cultural Resources task force, etc.	DESPP	Completed	Completed. New activity added to identify a new project annually with DESPP as lead. The DESPP/DEMHS FY 2019 Silver Jackets application for ICE JAM workshops along the Connecticut and Housatonic Rivers was awarded. The NHMPT will serve as the CT Ice Jam committee and we plan to pursue future (annual) SJ applications.	Medium	No	N/A
20	Support and implement State-level Hurricane Sandy Supplemental Funding "Implementation Strategy" to facilitate interagency coordination between state and federal agencies.	LTR Committee	Completed	Strategy completed and implemented.	High	No	N/A
21	Develop implementation strategy for Public Act 13-15, which requires consideration of the ways in which a water pollution control project mitigates the effects of sea level rise. The Act also requires that the list of priority water quality projects include the necessity and feasibility of implementing measures designed to mitigate the impact of a rise in sea level over the projected life span of such project.	DEEP Municipal Water Pollution Control Section	Deferred	Unknown, follow-up with Denise R..	High	Yes	12
22	Develop project category priorities for hazard mitigation funding administered by the State regardless of funding source, and then design consistent evaluation criteria to be used during application reviews for various programs as required (i.e., HMGP Administrative Plan), recognizing there will be differences in program eligibility, etc.	DESPP / Emergency Management & Homeland Security	Partially Completed, Continue	This is a continuous refinement process and is re-evaluated annually	High	Yes	13
23	Through communications with other state agencies and communities with FEMA-approved Natural Hazard Mitigation Plans, develop a list of potential mitigation projects that can be maintained and assessed for further development upon availability of funding sources. This will also help assist in future NHMP planning by identifying when areas and facilities of concern exist.	DESPP / Emergency Management & Homeland Security	Partially Completed, Continue	This is a continuous refinement process and is re-evaluated annually	Medium	Yes	14
24	Investigate the opportunity for FEMA to re-calculate the Cost/Benefit Analysis used in grant applications such that relocation of homes outside of floodplains is more frequently feasible in the context of hazard mitigation projects.	DESPP	Cancelled	Removed as unrealistic. Consider changing to a strategy to provide more BCA training to subapplicants statewide, and replace lead agency since DEEP no longer administers UHMA grants.	Medium	No	N/A

25	Acquire and install emergency backup generators and/or renewables and alternate energy sources at state-owned critical facilities.	DAS / Division of Construction Services	Partially Completed, Continue	This is a continuous process, additional language has been added to the strategy to focus on micro-grids and other alternative energy sources.	High	Yes	15
26	Conduct phragmites control/invasive plant control (herbicide and mowing) on state-owned land tidal and freshwater marshes to reduce fuel load and wildfire risk in tidal areas for three year period to control this invasive species. Reduce phragmites by 50% in year one; 40% in year two; 10% in year three with 100% reduction after three years.	DEEP / Bureau of Natural Resources	Partially Completed, in progress	Ongoing, but haven't met goals. Carried this activity over to the 2019 activities, and reworded to "reducing", rather than "eliminating".	High	Yes	16
27	Continue to provide communities with tools to support improved local vulnerability and risk assessments to support hazard mitigation planning and the development of fundable hazard mitigation projects including RL and SRL acquisitions. Build on successful delivery of online Adaptation Resource Toolkit (ART) and related training workshops.	DESPP / Emergency Management & Homeland Security	Partially Completed, in progress	In progress and continued annually.	High	Yes	17
28	Convene a forum of state agencies to coordinate assess and evaluate gaps in climatalogical data, to establish priorities, and to identify strategies to secure funding for necessary enhancements. This activity is linked to Activities #13 and #39.	DPH	Partially Completed, in progress	There is coordination between CIRCA, DEEP and DESPP, but the action is not complete	High	Yes	18
29	Promote the capture and use of hydrologic monitoring data for improved Benefit-Cost Analysis (BCA) model population at the state and local level (e.g. high water marks, gage data, historical damages from all events, recurrence intervals, etc.). Also, expand efforts to include similar data for other hazards, and include the quantification of environmental benefits (according to FEMA Mitigation Policy #FP-108-024-01) to increase Benefit to Cost Ratios for eligible projects.	DESPP / Emergency Management & Homeland Security	Deferred	No action has been completed.	High	Yes	19
30	Encourage owners/operators of critical facilities, such as municipal water pollution control facilities (WPCFs), to pursue grant funds to elevate, relocate, flood proof, or otherwise protect electrical and mechanical systems to minimize or eliminate service disruption during and after potential hazard events.	DEEP- Land and Water Resources Division	Partially Completed, Continue	In process, needs to continue. Performed on an annual basis and during the performance of CAVs and CACs.	Medium	Yes	20
31	Create a central repository and web-based portal dedicated to identifying and procuring funding from all available sources. This activity is linked to Activity #33.	Governor's Office	Partially Completed, Continue	Continuous improvements ongoing. Re-assigned to OPM as lead.	High	Yes	21

32	Upon completion of DOT's systems-level vulnerability assessment in support of the Climate Change and Extreme Weather pilot project, allocate funds for increasing capacities of selected culverts in state roads. This activity is linked to Activity #44.	DOT	Completed	Completed.	Medium to High	No	N/A
33	Through working with the State NHMP Planning Team, develop a list of potential funding sources available on a state and federal level for natural hazards mitigation planning activities and projects with emphasis on RL and SRL properties. This activity is linked to Activity #31.	DESPP / Emergency Management & Homeland Security	Partially Completed, Continue	Partially complete (for example, in West Haven) but needs to continue.	Medium	Yes	22
34	Encourage communities and state agencies to pursue funding opportunities to develop advanced research and plans in the area of natural hazards mitigation. Planning activities included under this section would be: standalone plans which can assist in enhancing existing Natural Hazards Mitigation Plans (e.g., debris management plans, evacuation and sheltering plans, hazards studies and evaluations (including recommendations) which are not part of existing approved plans).	DEMHS	Partially Completed, Continue	Done on an annual basis and needs to continue.	Medium to High	Yes	23
35	Develop a State Climate Change Science plan to measure the rate of climate change including sea level rise, evapotranspiration increase, etc. as being tracked through the Land and Water Resources Division (previously OLISP) sentinel monitoring program, to support climate change adaptation planning and transportation Natural Hazards Mitigation Planning activities and research. Specific tasks include (1) consolidating climatological and ecological data which could be done by LWRD/WPC/USGS/UCONN; and 2) secure and leverage funding for enhanced Sentinel Monitoring for Climate Change program and development of a State Climate Science Plan which should be DEEP and UCONN. This activity is linked with Activity #45.	CIRCA	Completed	CIRCA Grants Annually – Completed. Not likely to continue in the future. A replacement action was added to the plan update (Table 5-1). Compile recent plans that include independent climate change assessments (State Water Plan [Water Planning Council] and Drinking Water Vulnerability Assessment and Resiliency Plan [CIRCA/UConn/CT DPH]) and then use the combined resources to support the individual activities listed in this action. Also, this could be advanced through the NDRC-funded Connecticut Coastal Communities Resilience Plan (2018-2022)	High	No	N/A
36	Encourage communities to pursue funding opportunities to develop FEMA approved Natural Hazards Mitigation Plans which promote addressing RL and SRL properties as well as the integration of climate adaptation strategies with conventional hazard mitigation techniques.	DESP	Partially Completed/ Continue	This is completed on an annual basis. Climate change is now required in NHMP updates and reviews assure the Rep. Loss strategies are always addressed.	High	Yes	24

37	Maintain a tracking system of submitted FEMA grant project/planning applications, to help analyze the types of projects and the mitigation needs that continue to exist within the State.	DESPP / Emergency Management & Homeland Security	Partially Completed, Continue	Ongoing activity.	Medium	Yes	25
38	Develop an evaluation process and implement said process to measure the results from the implementation of various activities as listed in the State NHMP.	DESPP/DEMHS	Deferred	No action has been completed.	Medium	Yes	26
39	Pursue Federal funding to establish additional stream gauges for flood and drought planning purposes. This activity is linked to Activity #28.	DEEP	Cancelled	Deleted – due to significant resource and staff reductions this activity is extremely unlikely to be pursued over the next planning period.	Medium to High	No	N/A
40	Continue planning and development of a database to assist with the storage and maintenance of risk and hazard information from local and multi-jurisdictional hazard mitigation plans.	DEMHS	Deferred	No action has been completed.	Medium	Yes	27
41	Encourage municipalities to conduct watershed-based hydrologic and hydraulic studies to evaluate potential flood mitigation alternatives along river and stream corridors.	DEEP- Land and Water Resources Division	Partially Completed, Continue	Some progress completed under Risk MAP. Meriden HUB and RiverCOG Flood Susceptibility Model are examples of non RiskMAP projects of this nature completed since 2014. Pursued through RiskMAP projects. There is also a USGS model that performs such studies for communities.	Medium	Yes	28
42	Investigate actions of other states with regards to the develop of an interactive webpage or other medium for collecting flood information from the general public or other entities which would include photos and other types of information which would be a valuable asset in documenting impacts from natural hazards. This information can be utilized to support reporting damages to FEMA in a more efficient time frame, in combination with other available sources including but not limited to the StormSmart CHAMP and Connecticut StormReporter websites.	DEEP- Land and Water Resources Division	Cancelled	Duplicative with Activity #43	Medium to High	No	N/A

43	Develop a system to facilitate the rapid capture, delivery, and documentation of post-storm impacts to coastal areas by local teams and citizens in the field and develop an interactive webpage or other medium for collecting flood information from the general public or other entities. This would include photos and other types of information which would be a valuable asset in documenting impacts from natural hazards.	DEMHS	Partially Completed, in progress	Various entities are studying systems like WebEOC. Further action is needed.	Medium	Yes	29
44	Upon completion of DOT's systems-level vulnerability assessment in support of the Climate Change and Extreme Weather pilot project in Litchfield County, repeat the process in the remainder of the state. This activity is linked to Activity #32.	DOT	Deferred	Deferred.	Medium to High	Yes	30
45	Increase hydrologic monitoring in the state relative to precipitation, surface groundwater, and tidal gauges to enhance the statewide data collection effort and improve long term trend analysis for climate change assessments, predictive modeling and hazard mitigation. This activity is linked with Activity #35.	CIRCA	Partially Completed, in progress	CIRCA is working toward completing this task and making progress. In the updated activities, the LHMPC will be added in a support role.	Medium	Yes	31
46	Develop updated/improved storm surge hazard modeling to supplement sea level rise inundation scenarios.	CIRCA	Partially Completed, in progress	Some portions of this work are complete, via several initiatives. North Atlantic Comprehensive Coastal Study by USACE is complete. DEEP with USACE looking in NH and FFD Co. Flood Risk Management Feasibility Study - $1 Million CIRCA is currently working on storm surge modeling for coastal communities. The USACE/DEEP Flood Risk Management Feasibility Study for New Haven and Fairfield Counties focuses on a review of one or more study reaches within the two counties for the development of potential flood mitigation projects and pursuance of funding by USACE to perform said potential flood mitigation projects in the future.	Medium	Yes	32
47	Use shoreline transect data to map coastal erosion zones and develop applicable outreach products.	DEEP	Deferred	No action has been completed. (check with Pete F. to confirm)	Medium	Yes	33

48	Continue to identify head-of-tide habitat within Connecticut and monitor the change in this habitat due to climate change through sentinel monitoring in order to determine those communities that may endure increased risk from coastal storms and associated flooding. LWRD is currently funding multiple monitoring and data synthesis projects in support of this activity.	DEEP - Land and Water Resources Division – Coastal Resources Section	Deferred	No action has been completed. (check with CRM)	Medium	Yes	34
49	Identify and map the locations of headwater, main stem and coastal dams, culverts, bridges, and other structures or land modifications that contribute to flood damage and act as barriers to habitat connectivity, and assess the feasibility of removal or modification of these structures.	DEEP - Land and Water Resources Division	Deferred	No action has been completed.	Medium	Yes	35
50	Evaluate the hazard potential in Connecticut of land subsidence or slope failures.	DEEP / Geological Survey	Cancelled	Deferred due to lack of funding. Edit activity description with info provided and Keep. This has been replaced with a newly worded strategy.	Medium	No	N/A
51	Create a database of survey elevation points in coastal areas.	DOT	Partially Completed, in progress	In addition to DOT, individual towns are collecting benchmarks in binders and in their GIS systems on a sporadic basis.	Medium to High	Yes	36
52	Create a literature review of various FEMA publications to be placed on CT DEEP's flood management webpage. Include a short description of the publication and a direct link for convenient downloading of the document, or a note to contact CT DEEP's Flood Management Section to obtain a copy.	DEEP - Land and Water Resources Division	Deferred	Kept but reduced to low priority value for this activity due to significant resource and staffing reductions at DEEP.	Medium to High	Yes	37
53	Encourage dissemination and outreach of updated regional IPCC model scenarios, coupled with Northeast Regional Climate Center data and best emerging science, to communities and educators, and to inform all planning processes and statewide education.	CIRCA	Completed	Complete/CIRCA has done this for SLR and NEMO has done this for precipitation.	High	No	N/A
54	Finalize StormSmart Coasts CT site and perform outreach to encourage use by local communities and others to reduce risk.	DEEP - Land and Water Resources Division	Deferred	Not completed.	High	Yes	38

55	Perform a feasibility analysis of the development and expansion of an inventory of infrastructure (including, but not limited to, key transportation, energy, water supply, wastewater and storm water conveyance and treatment structures, dams and levees) at risk from the effects of climate change and prioritize them based on a formalized list of criteria (TBD). In addition, investigate the feasibility of mapping the exact location and elevation of all coastal sewer outflows and coastal flood control structures and including this information in the inventory. Useful data that may be collected for this inventory project includes the exact location of the structure; elevation; structure condition and year built; and value of infrastructure vulnerable to coastal and riverine flooding hazards exacerbated by climate change. This effort should be coordinated with ongoing efforts by CT DOT and the EPA's Climate Ready Water Utilities (CRWU) programs being implemented by the water infrastructure sector. This activity is linked to Activity #49.	DEEP - Land and Water Resources Division	Cancelled	Delete. Due to significant resource and staff reductions in the Agency, this project is very unlikely to be performed during the next planning period.	Medium to High	No	N/A
56	Perform an assessment of increased natural hazard vulnerability and risk from climate change (e.g., effects from increased flooding, sea level rise, and severe weather (e.g., wind, temperature, and drought)). Assessment should be based on local risk and vulnerability assessments already prepared by local communities in coordination with DEEP.	DESPP	Cancelled	Duplicative with other efforts. Agencies perform this already. Activity deleted this since this is done through the state NHMP planning process.	Medium	No	N/A
57	In coordination with local communities, recommend categorical (e.g., wastewater, energy) and site-specific options for adaptation from the projected impacts of climate change and occurrence of natural hazards for public infrastructure (including flood protection structures). Adaptation and hazard mitigation alternatives should include the estimated costs associated with the options evaluated to be the most viable for implementation purposes.	DEEP - Land and Water Resources Division	Deferred	This is a close description to what the USACE/DEEP flood risk management feasibility study intends to achieve at a reduced level due to state funding limitations for this project.	Medium	Yes	39

58	Research and identify the legal authorities applicable to regulation and planning for climate change adaptation activities, especially at the local level. Identify opportunities to build on the success of Public Act 12-101, which combined a number of initiatives to address sea level rise and to revise the regulatory procedures applicable to shoreline protection (more fully described in Section 3.2.1.3).	DEEP	Completed	CIRCA completed this. See the William Rath papers distributed in 2018.	Medium	No	N/A
59	Encourage education and community participation in adaptation, low impact development, and flood management through existing networks and partnerships including the CT Climate Education Communication Committee. This includes coordinating LWRD's coastal community adaptation and risk mitigation work with educational place based student experiences through CT Green Leaf in K-12 to increase participation and maximize local solutions.	DEEP - Land and Water Resources Division	Deferred	No action has been completed. (check with Pete F. to confirm)	Medium	Yes	40
60	Develop and deliver Micro-grid Pilot Program Trainings.	DEEP / Bureau of Energy and Technology	Partially Completed, Continue	This is done on an annual basis.	High	Yes	41
61	Coordinate with water utilities to more actively promote water conservation measures with their customers, especially now that new legislation allows them to recover revenue while encouraging conservation.	DPH / Drinking Water Section	Partially Completed, Continue	Partially complete with the completion of the State Water Plan and the Coordinated Water System Plan (two separate statewide plans published in 2018). Will continue with the implementation of both plans.	Medium	Yes	42

62	**Local School Construction Grant Program and School Safety Infrastructure Council:** • Identify and assess existing public school facilities that could be impacted by natural hazards (including climate change). Correlate identified schools with the School Building Project Priority Lists; identify mitigation strategies for these projects early on in the grant process. • For new grants involving siting a new school, provide and encourage the use of an interactive web based mapping portal for local school districts to use during site selection. Encourage early coordination with DAS Environmental Planning and GIS Services Unit. • Should facilities be located within natural hazard areas, request an assessment of "no feasible or prudent alternative;" encourage higher design standards above minimum criteria for new schools or "renovated as new." • Identify long-term climate change adaptation strategies for each structure/facility.	DAS / Office of School Facilities	Partially Completed / In Progress	This activity is underway and will continue over multiple years.	High	Yes	43
63	**Sustainable State Facilities Initiative:** • Identify, develop, and prioritize a plan for state facilities' potentially impacted by natural hazards (including climate change) • Assess the risks in relation to the physical structures, the agency's long-term capital planning plans, building life span, etc. • Develop specific mitigation strategies for each structure/facility as part of the plan utilizing existing hazard data, identify timeframe for implementing the strategies, and include estimated mitigation costs. • Identify long-term climate change adaptation strategies for each structure/facility.	DAS / Environmental Planning & GIS Services Unit	Partially Completed / In Progress	This activity is underway and will continue over multiple years.	High	Yes	44

64	Establish a Connecticut "Center for Coasts" that will conduct research, analysis, design, outreach and education projects to guide the development and implementation of technologies, methods and policies that increase the protection of ecosystems, coastal properties and other lands and attributes of the state that are subject to the effects of rising sea levels and natural hazards. More information on the specific activities proposed for the Center to undertake is provided in Chapter 3.	CIRCA	Completed	Completed. This effort evolved into the creation of CIRCA.	High	No	N/A
65	Adopt a seismic station currently being installed in CT as part of EarthScope, a nationally funded research program, in order to continue seismic monitoring operations in the Moodus area of East Haddam, beyond the initial two year period. This will enable continuous seismic monitoring with special emphasis on these frequent events. Once adopted, the station will become part of the New England Seismic Network, under a maintenance and technical assistance agreement with Weston Observatory of Boston College.	DEEP / Geological Survey	Cancelled	This activity was defunded and the opportunity was lost. It has been deleted and replaced with a new strategy.	High	No	N/A
66	Conduct geophysical research to investigate, classify, and map soil stability and susceptibility to liquefaction during seismic events to assist with future hazard mitigation planning efforts.	DEEP / Geological Survey	Deferred	Geophysical research to assess seismic stability of soils: unchanged – deferred due to lack of funding- keep this activity as it is written.	High	Yes	45
67	Improve identification of escarpments susceptible to landslide and fluvial erosion risk, utilizing geologic, soils, and elevation data. This activity will provide improved landslide and mass wasting risk estimates, to produce a more comprehensive view of landscape stability during extreme weather events and subsequent impacts.	DEEP / Geological Survey	Deferred		Medium	Yes	46
68	Identify and map extent of historic underground mining operations in the State; assess reclamation and current land use relative to risk of land subsidence and mine collapse for the estimated 23 historic underground mining operations in Connecticut. Project deliverables will include georeferenced site maps and assessment reports, as well as a summary of current conditions and potential ground collapse hazards in these areas.	DEEP / Geological Survey	Deferred	Refer to the Cheshire Hazard Mitigation Plan for an entire chapter dedicated to this. Could be a good example to use.	Medium	Yes	47

6 Plan Monitoring, Maintenance, Evaluation & Revision

6.1 Plan Monitoring Procedures

Connecticut's first formal Natural Hazard Mitigation Plan (Section 406 Plan) was adopted on August 17, 1983 as a result of a major flooding event and disaster declaration (FEMA-661-DP) that occurred on June 6, 1982. Several municipalities participated in the planning process.

Several major recommendations included in this first plan included updating local and state emergency operations plans, establishing an automated flood warning system, expanding the Dam Safety Section of the DEP (now DEEP), setting new standards for road and bridge culvert design, and pursuing several legislative initiatives that enhanced Connecticut's ability to regulate its floodplains.

The Natural Hazard Mitigation Plan was updated regularly following major natural disasters, including during:

- 1985 - in response to a flooding event that also resulted in a Federal disaster declaration;
- 1989 – in response to a powerful tornado that caused extensive damage and two deaths in western Connecticut;
- 1990 – regularly scheduled update;
- 1992 - as a result of Hurricane Bob (FEMA-916-DR-CT) that struck Connecticut and New England on August 19, 1991;
- 1993 - as a result of Winter Storm Beth (FEMA-972-DR-CT), which occurred on December 10 – 13, 1992;
- 1999 – in response to impacts from Tropical Storm Floyd, which caused severe riverine flooding within the state;
- 2004 – a regular scheduled update in response to FEMA's new planning requirements under the Disaster Mitigation Act of 2000, Section 322 requirements issued in 2001;
- 2007 – a regularly scheduled update;
- 2010 – a regularly scheduled update; and
- 2014 – a regularly scheduled update.

Chapter 1 details the planning process employed for the 2018 update. The 2018 plan is consistent with the latest FEMA Hazard Mitigation Plan guidance and Review Tool, including Flood Mitigation Assistance planning requirements that qualify Connecticut to pursue federal funding for severe repetitive loss structure mitigation funded through the Flood Mitigation Assistance, Pre-Disaster Mitigation, and Hazard Mitigation grant programs. Following the precedent set by the 2014 plan update, the 2018 update continued to use state-owned and critical facility data in the risk and vulnerability analysis.

When considering continuity of critical operations in the context of state services and facilities, the impacts of natural hazards can be similar or identical to the impact of a human-caused event. For example, in the aftermath of severe floods or winter storms, tens of thousands of residents can be without power, some for as long as two weeks. A human-caused event that causes failure of a power plant due to operation error or terrorism would have similar impacts to Connecticut's utility customers and operation of critical facilities. While the plan does not specifically consider human-caused hazards, many of the strategies and projects included in the plan that harden critical facilities reduce human-caused hazard exposure.

The 2014 plan contained 68 mitigation actions. In some cases they were indeed actions or projects, while others represented objectives. Many were ongoing activities that represent existing programs or capabilities. For a full description of the changes to and status of 2014 mitigation strategies, see Table 5-2 in Section 5.8 of this plan.

The 2018 Connecticut State Natural Hazard Mitigation Plan Update provides guidance for hazard mitigation within Connecticut. Its vision is supported by three goals, each with a supporting objective, multiple strategies, and associated actions. The actions and projects that support the objectives and strategies were submitted by Connecticut state agencies and stakeholders along with federal agency partners and non-governmental organizations. As described in Chapter 5 and its associated appendices, projects were prioritized at the October 26, 2018 meeting using STAPLE/E criteria where appropriate.

The 2018 mitigation strategies were wholly informed by the improved Vulnerability Analysis and renewed priorities of the State. The updated Hazard Identification & Risk Assessment (HIRA) and Vulnerability Analysis include state and critical facility data, as well as consideration of the risk and vulnerability data evaluation from all local hazard mitigation plans. The continued relevance of current goals, objectives, and strategies and projects will again be evaluated during the development of the next plan revision. Departments and stakeholders will continue to integrate mitigation activities with their planning efforts.

6.1.1 Tracking Actions and Projects

A Mitigation Action Tracker spreadsheet was created for tracking implementation of all new and "carry over" mitigation actions. This tool provides all participants involved in implementation a simple and easy-to-use tracking and reporting mechanism. The tool also assists with maintaining organization as staff changes inevitably occur. Specific annual reporting and update targets have been established with firm due dates in the maintenance schedule which follows in Section 6.2.3.

The mitigation staff, or action leads, will maintain the Mitigation Actions Tracker spreadsheet (see Appendix 5) that has been developed in accordance with this plan. Primary responsibility for this task will reside with the State Hazard Mitigation Officer, within DEMHS. Actions will be tracked and updated twice per year as outlined in Table 6-1.

In addition to tracking progress on mitigation actions, other major aspects of tracking during the five-year plan implementation cycle following plan approval will include:

- Continued development of protocol for local data input;
- Inclusion of local mitigation plan databases from local HIRAs, capability assessments, and local priority mitigation strategies;
- Expansion of state hazard historical data; and
- Refinement of state agency facility inventories and critical facilities data.

These items will be addressed annually and data stored for easy access and use during subsequent updates.

6.2 Plan Maintenance

The State Hazard Mitigation Planning Team (SHMPT) was expanded and enhanced since the 2014 plan update to support development of the plan due to changes in disaster-related activity throughout the state and capabilities as outlined in Chapter 3. While planning committees are generally limited to twenty participants or less, the State broadened the number of stakeholders to include all who participated by attending SHMPT meetings, sponsoring projects, providing information, and reviewing the plan draft. State staff emphasized participation in the manner that was appropriate for each agency and organization.

To develop the 2018 plan mitigation strategies, a sub-group structure was used to encourage departments and other entities not traditionally as engaged in implementation to develop actions for their specific organizations.

Standing, ad-hoc Mitigation Sub-Committees will be convened, surveyed, or engaged periodically as necessary during the 2019–2023 plan implementation cycle. These sub-committees will be responsible for:

- Mitigation of structures;
- Planning, policy, legislation and funding;
- Education and outreach; and
- Risk assessment and data.

The Connecticut DESPP, DEMHS mitigation program staff, in consultation with key state agencies, federal partners, and organizations will direct implementation of the plan. DEMHS serves as the lead coordinating agency for emergency management in Connecticut, and thus will lead the mitigation planning effort, including plan maintenance. DEMHS will track projects identified in both the State Hazard Mitigation plan (using the Mitigation Tracker spreadsheet) and in local plans.

The planning process timeline will be revised continually during the next five years to ensure that the next plan revision will be prepared and submitted to FEMA within the required five-year time period. Special emphasis will be given to increased participation by businesses and special interest groups. State or federal legislative, regulatory, or rule

changes or additions that occur during the period following approval of the 2018 plan will be integrated into the 2023 plan update.

Should a specific plan element or section require revision or amendment prior to the subsequent plan revision due to state or federal legislation, policy change, or a declaration of major disaster, DEMHS staff will meet with all appropriate stakeholders and propose the change or addendum to FEMA as quickly as practicable.

6.2.1 Reporting

The sponsors of projects and actions funded through the FEMA Hazard Mitigation Assistance Program provide quarterly progress reporting to DEMHS throughout the duration of the project. DEMHS consolidates these reports into a quarterly summary that is provided to FEMA. Projects that support specific aspects of the Mitigation Plan will be tracked on the Mitigation Action Tracker spreadsheet so that specific FEMA-funded initiatives are tracked to achievement of Mitigation Plan Strategies. A copy of the Mitigation Action Tracker and brief narrative summary of progress will be provided annually to FEMA Region I.

6.2.2 Coordination of Mitigation Operations and related Initiatives

The Connecticut Interagency Hazard Mitigation Committee (CIHMC) was formed in the 1990s with a primary focus on reviewing mitigation grant applications and providing feedback to the State Hazard Mitigation Officer and staff on policy and planning issues. Throughout the first decade of the 2000s, the CIHMC's role evolved. Many of its members were involved in the most recent plan updates as reviewers or stakeholders. Since 2010, many new groups have been formed in Connecticut with varying missions (See Chapter 3). Notably, the following groups are currently active:

- The Adaptation Subcommittee of the Governor's Steering Committee on Climate Change (formed in 2008);
- The Shoreline Preservation Task Force (formed in 2012);
- The State's Long-Term Recovery Committee (formed in 2012);
- The State Vegetation Management Task Force (formed in 2012); and
- State Agencies Fostering Resilience (formed in 2015).

Coordination and information sharing between these groups will be integrated into plan maintenance and implementation during the planning cycle. The CIHMC will meet quarterly to share information and to review implementation of the mitigation actions identified in this plan.

6.2.3 Schedule for Plan Maintenance, Implementation and Revision

The monitoring, maintenance and implementation approach outlined above will be conducted in accordance with the schedule in Table 6-1. The 60-month timeline serves as the framework to ensure that the 2023 plan revision can be prepared and submitted to FEMA within the required five-year time period. Funding sources for the update process will be investigated and secured six months prior to the scheduled start of the process to

allow for ample data collection and interagency coordination. As highlighted in the table, the SHMPT will meet semi-annually to discuss plan implementation, changes in the plan, and progress on strategies and projects. The SHMPT meeting will also be used as a forum to discuss changes to the update process, committee members, what works well, what should be changed, and to assess the system (FEMA state plan review tool) used to evaluate the plan for FEMA compliance. At the start of the update, and throughout the implementation, ample time will be needed and allowed for the continued data collection for the vulnerability assessment, relying on information from local plans and new ongoing research (such as climate changes and sea level rise analysis).

Table 6-1: Schedule for Plan Monitoring, Maintenance, Implementation and Revision

Task	Responsibility	Time Frame
Refine Planning Process and timeline for 2023 plan development	DESPP/DEMHS Mitigation Staff	Ongoing
Collect and store expanded facilities, local plan risk data, and historical disaster data	Risk Assessment Sub-Committee	Ongoing with Quarterly Summaries beginning March 2019
Update Mitigation Action Tracker	Project Leads	Quarterly beginning March 2019
Review Action Tracker as a Team	SHMPT	June 2019 December 2019 June 2020 December 2020 June 2021 December 2021 June 2022 December 2022 June 2023
Report Progress to FEMA Region I using Action Tracker	SHMO	December 2019 December 2020 December 2021 December 2022
Consolidate list of known local plan implementation actions with tool similar to Mitigation Action Tracker	DESPP/DEMHS Mitigation Staff	Annually beginning June 2019
Convene the SHMPT or CIHMC to discuss plan implementation, the submittal of additional mitigation activities, and to lay the groundwork for future HIRA, Vulnerability Assessment and strategy changes to the State Plan	DESPP/DEMHS Mitigation Staff Mitigation Staff - ongoing Risk Assessment Sub-Committee Members	June 2019 December 2019 June 2020 December 2020 June 2021 December 2021 June 2022 December 2022 June 2023
Evaluate progress on strategies and projects	DESPP/DEMHS Mitigation Staff	June 2019

	Strategy & Project Sponsors	December 2019 June 2020 December 2020 June 2021 December 2021 June 2022 December 2022 June 2023
Upload Local Plan Updates	DESPP/DEMHS Mitigation Staff	June 2019 June 2020 June 2021 June 2022 June 2023
Provide brief implementation progress report to FEMA Region I	DESPP/DEMHS Mitigation Staff	June 2019 June 2020 June 2021 June 2022 June 2023
Initiate Revision Process for 2018 Plan	DESPP/DEMHS Mitigation Staff	September 1, 2019
Review current regulatory requirements for plan revision	DESPP/DEMHS Mitigation Staff	September 1, 2019
Submit new Revised All-Hazard Mitigation Plan to FEMA	DESPP Commissioner	August 1, 2023

6.2.4 Process and Schedule for Plan Evaluation

Table 6-1 identifies meetings every 6 months to evaluate progress on mitigation strategies and projects, as shown in the excerpt below.

Evaluate progress on strategies and projects	DESPP/DEMHS Mitigation Staff Strategy & Project Sponsors	June 2019 December 2019 June 2020 December 2020 June 2021 December 2021 June 2022 December 2022 June 2023

The Connecticut State Hazard Mitigation Officer (SHMO), or responsible designee, will be responsible for evaluating implementation of projects and activities, and plan effectiveness. The evaluation will occur at SHMPT meetings. Each member of the SHMPT responsible for actions in the plan will report out at the meetings. In addition to monitoring projects, as described in the previous section, the following five measures of plan success will be reviewed at each of the meetings:

1. Number or activities underway
2. Number of activities complete
3. Does recent disaster activity reflect accuracy of HIRA?
4. Have there been losses avoided as a result of implementation measures?
5. Have other state level plans or programs used, reference, or integrated the state mitigation plan?

The SHMO will prepare a summary report, in addition to the updated action tracker addressing each of the five measures following each meeting. The reports will be "rolled up" into the annual progress reports to FEMA, also outlined in Table 6-1.

6.3 Project Closeout

Project Closeout is the process that finalizes a completed mitigation project that FEMA has funded. Project Closeouts will continue to be conducted based on FEMA Region I closeout procedures in accordance with national and regional FEMA guidance along with Connecticut financial management procedures. Projects and activities funded through other federal or state grant programs, state general funds or that can be achieved without targeted funding will be completed as dictated by the funding source or state program with administrative oversight for the activity of the project. The following description provides an overview of the closeout process. Details are included in the CT 2008 State Hazard Mitigation Grants Administrative Plan, included in Appendix 3-1.

6.3.1 Project Closeout Process

The subgrantee will notify the State Hazard Mitigation Officer (SHMO) when a project is ready to be closed. It is recognized that, based upon performance period deadlines, the State Hazard Mitigation Officer (SHMO) may suggest project closure to FEMA. The seven steps to closure of a project are:

1. Agreement between the subgrantee and the State that the project is ready to be closed. Should either not agree, the project manager or the State Hazard Mitigation Officer (SHMO) would request an extension, in writing, outlining the justification for the request.
2. The sub-grantee, the State, and FEMA will coordinate to make sure that funds advanced through the program balance with funds expended by the State and sub-grantee. If there is disagreement between the expended funds and the grant amount, FEMA and the State take steps to reconcile and adjust final project expenditures and Grantee Management Costs.
3. The State will submit a final project report that includes:
    - Final Financial and Progress Report to FEMA (if applicable);
    - Final Letter of Credit Payment Request;
    - FEMA Form 20-18, Report of Government Property; and
    - Photos, Property Survey Inventory spreadsheet, etc. to validate expenditures.
4. The State will conduct site visits for all projects to ensure the approved scope of work was completed. The State will provide FEMA with a letter confirming final inspection and that all final payments have been made to project.

5. Subgrantee shall have 30 days to appeal if it does not agree with the State and FEMA's findings. The appeal process previously mentioned will be employed to appeal matters relating to closeout.
6. FEMA and the State will coordinate their financial systems to record the amount and date of the final payment(s). Financial files will be closed and excess funds will be de-obligated.
7. The State will provide FEMA with a letter requesting closure of the project. The information and enclosures:
    - Project name, federal project number, state identification number
    - Financial summary of the project
    - Certifications:
        - All eligible funds paid to subgrantee
        - All work completed according to FEMA and State requirements
        - All costs incurred as the result of eligible work
        - All work completed in accordance with provisions of the FEMA/State and State/Local agreements
        - All payments made according to Federal and State legal and regulatory requirements
        - No bills are outstanding
        - No further requests for funding will be made for the project

6.3.2 Program Closeout

When all projects under a single disaster are closed, the entire program is ready for closure. The steps that comprise program closeout are as follows:

1. Any mission assignments and technical assistance contracts will be closed out.
2. There will be agreement between FEMA and the State on the Final Claim Amount and concurrence date. The State will submit a concurrence letter and sign FEMA Form 425.
3. The HMGP will be closed in program and financial systems. FEMA and the State Hazard Mitigation Officer (SHMO) are responsible for ensuring that Federal and State records are available in the event of an audit.

State-specific responsibilities for the HMA closeout process may be found in the *2010 HMA Unified Guidance* Part VI, D.1, D.2 and D.2.1. All records will be maintained for a minimum three years from the date the program is closed.

Planning Process
Appendix 1

APPENDIX 1-1. COMPLETE CROSSWALK

APPENDIX 1-2. MEETING DOCUMENTATION

APPENDIX 1-3. PUBLIC SURVEY

Appendix 1-1. Complete Crosswalk

Appendix 1-2. Meeting Documentation

Dewberry

CT NHMP 2019 UPDATE – INTERNAL KICK-OFF

Date: September 28, 2017
Time: 2:00-3:00, PM
Location: CT DESPP/DEMHS, 1111 Country Club Road, Middletown, CT
Meeting Lead: Rita Stewart, DESPP / Scott Choquette, Dewberry
Purpose: Internal kick-off to plan for the completion of the 2019 NHMP Update
Attendees: Rita Stewart and Members of the NHMP Core Planning Team
Scott Choquette, Dewberry
David Murphy, Milone & MacBroom
See Attendance Sheet

Agenda Items

2:00 a.m. – 2:10 p.m.	INTRODUCTIONS	All
2:10 a.m. – 2:30 p.m.	REVIEW / ESTABLISH TEAMS • Core Team • State HM Planning Team • Participating Stakeholders	Rita
2:30 p.m. – 2:45 p.m.	REVISE SCHEDULE • Overall • Establish K/O Date • Tentative Milestone Meeting dates	Scott
2:45 p.m. – 3:00 p.m.	DISCUSS ANTICIPATED MAJOR CHANGES • Core Hazards • Focuss • Treatment of Climate Change • Datasets, etc.	All
3:00	NEXT STEPS	All

NHMP Meeting
September 28, 2017

Name	Agency	E- Mail Address (if changed)
David Murphy	Consultant – MMI	davem@milonandmacbroom.com
Gauma. Fabris	DEMHS	Gauma.fabris@ct.gov
Iris H Wohlgemuth	DEMHS	Iris.wohlgemuth@ct.gov
Ken Dumais	DEMHS	Kenneth.Dumais@ct.gov
Karen A Michaels	DEEP	karen.michaels@ct.gov
Scott Choquette	Dewberry	schoquette@dewberry.com
Rick Stewart	DEMHS	—
Brenda Bergeron	DEMHS	brenda.bergeron@ct.gov

CT NHMP Plan Core Team	
Name	**Agency**
Brenda Bergeron	DEMHS/DESPP
Gemma Fabris	DEMHS/DESPP
Rita Stewart	DEMHS/DESPP
Ken Dumais	DEMHS/DESPP
Kris Wohlgemuth	DEMHS/DESPP
Karen Michaels	DEEP
Consultant Project Lead and Staff	Dewberry

State Hazard Mitigation Plan Working Group	
George Bradner	CT Dept. of Insurance/Chair Long-term Recovery
Brian Thompson	CT DEEP inland Water Resources – Director
Diane Ifkovic	CT DEEP – NFIP State Coordinator
Margaret Thomas	CT DEEP – Ct State Geologist
Jeff Semancik/Denny Galloway	CT DEEP -Supervising Radiation Control Physicist
Mark DeCaprio	CT DEEP Emergency Response and Spill Prevention
Jeff Ciulla	Climate Change
Rebecca Cutler	CT DAS, Construction Services
Pete Francis	LAND & WR Division
John Warren/John Field or other coordinator	DESPP/DEMHS
Douglas Glowacki	DESPP/DEMHS
Henry Paszczuk	DESPP/DEMHS
Doug Royalty	SHPO
TBD -Regional Planning Rep	Regional Planning/COG
Kurt Kelly	
Mike Muszynski	CCM
Jack Betkoski (SP)	Water planning Council
Betsy Gara/James O'Leary	Executive Director of the Connecticut Council of Small Towns (COST).
Jeff Ciulla	Res / climate - DEEP
Francesca Provenzano/Lori Mathieu	Department of Public Health - water.
Bruce Sherman	Department of Agriculture
Eric Lindquist	OPM
Rebecca French/James O'Donnell	CIRCA
April Capone David Kooris	SAFR State Agencies for Resilience
Brenda Bergeron	DEMHS/DESPP
Gemma Fabris	DEMHS/DESPP
Rita Stewart	DEMHS/DESPP
Ken Dumais	DEMHS/DESPP
Kris Wohlgemuth	DEMHS/DESPP
Karen Michaels	DEEP – Planning Section, Land and Water Resources

Eversource / UI

State Hazard Mitigation Plan Stakeholders Group	
LTC Vincent O'Neill	CT National Guard, Director of Military Support
Richard Branigan (or designee)	ARC
Binu Chandy	CT DECD, Brown Fields Program
Kristina Newman-Scott	State Historic Preservation Officer, DECD
Nick Lundgren	Department of Housing
Alanna Kabel	US Dept of Housing and Urban Development
CEMA/J.Warren	Emergency Management Director
Chris Brochu	DOT
Melissa Surrette	FEMA
Jeff Morrissette/Higgins	CT Fire Protection and Control
TBD	Local Conservation Director
Virginia DeLima	US Geological Survey
Denise Ruzicka	DEEP Water Planning and Management
Elizabeth Doran	DEEP Office of Information Planning
TBD (Dave Sattler retiring 10/1)	DEEP Office of Water Protection and Land Reuse
Art Christian	DEEP Dam Safety Supervisor
Christopher Martin	DEEP Forestry Division Director
Margaret Thomas	DEEP Ct State Geologist
Gary Rose	Director of Engineering and Enforcement
Susan Quincy	DEEP Kellogg Center
George Bradner	CT Dept. of Insurance/Chair Long-term Recovery
Brian Thompson	CT DEEP inland Water Resources – Director
Diane Ifkovic	CT DEEP – NFIP State Coordinator
Margaret Thomas	CT DEEP – Ct State Geologist
Jeff Semancik/Denny Galloway	CT DEEP -Supervising Radiation Control Physicist
Mark DeCaprio	CT DEEP Emergency Response and Spill Prevention
Rebecca Cutler	CT DAS, Construction Services
John Warren/John Field or other coordinator	DESPP/DEMHS
Douglas Glowacki	DESPP/DEMHS
Henry Paszczuk	DESPP/DEMHS
TBD -Regional Planning Rep	Regional Planning/COG
Mike Muszynski	CCM
Betsy Gara/James O'Leary	Executive Director,Council of Small Towns (COST).
Francesca Provenzano/Lori Mathieu	Department of Public Health
Bruce Sherman	Department of Agriculture
Rebecca French/James O'Donnell	CIRCA
April Capone	SAFR
Brenda Bergeron	DEMHS/DESPP
Gemma Fabris	DEMHS/DESPP
Rita Stewart	DEMHS/DESPP
Ken Dumais	DEMHS/DESPP
Kris Wohlgemuth	DEMHS/DESPP
Karen Michaels	DEEP – Planning Section, Land and Water Resources

DEPARTMENT OF EMERGENCY SERVICES & PUBLIC PROTECTION
EMERGENCY MANAGEMENT & HOMELAND SECURITY

Connecticut State Hazard Mitigation Plan Update Kick-Off Meeting

Agenda

October 31, 2017 10:00 AM – 12:00 PM

DESPP/DEMHS -1111 Country Club Road, Middletown, CT 06457

Room 245

Purpose: *Getting Organized, Jump-starting the Revision Process*

Description	Lead	Time
Welcome	Deputy Commissioner William Hackett	10:00 – 10:05
Introductions of Participants and How We'll Communicate • Project Team • Expectations o Mitigation Planning Committee, CIHMC, Stakeholders, Others • Update Requirements • Improvements to 2013 • Planning Purpose and Process	Rita Stewart, DEMHS Scott Choquette, Dewberry	10:05-10:15

Updating the Hazard Identification & Risk Assessment
• Overview of HIRA Planning Process
• Hazard Analysis consistent with State Hazards
• New Hazards to Consider?
• Data Needs
  o Data discrepancies from previous plan, what can be improved?
  o Critical Facilities and Assets
  o Hazard Specific Data Sources
• Local Hazard Mitigation Plan Incorporation
• Review of Existing Ranking
	Scott Choquette, Dewberry
	
	David Murphy, Dewberry Team (Milone & MacBroom)
		10:15 – 11:00
		
		Break – 11:00

Evaluating 2013: • Mitigation Actions • Program Capacity • Planning Integration	David Murphy, Dewberry Team (Milone & MacBroom)	11:15– 11:45
Wrap Up and Future Meetings • Project Schedule - Milestones • Next Mitigation Committee Meeting • Overview of Action Items	Scott Choquette, Dewberry	11:45– 12:00

Connecticut Hazard Mitigation Plan Update Kick Off Meeting October 31, 2017 Sign-In Sheet				
Name	**Company/Department**	**Position**	**Email**	**Phone**
Vincent O'Neill	Military Department	Director of Military Support	Vincent.d.oneill.mil@mail.mil	860 524 4951
Doug ROYALTY	State / DECD	HHPD - Hurricane Sandy	douglas.royalty@ct.gov	860 500 2437
George Bradner ✓	STATE Dept. of Insp	P+C Director	george.bradner@CT.GOV	860-297-3866
Michael Hege ✓	Dept. of Public Health	Section Supervisor	michael.hege@ct.gov	860-509-7333
Jeff Semanchik ✓	DEEP - Radiation	Radiation Director	jeffrey.semanchik@ct.gov	(860) 424-4190
Michael E. Licata ✓	Town of Windham - Fin/EMD	Fire Marshal / EMD	mlicata@windhamct.com	860-465-3044
Margaret A. Thomas ✓	DEEP - CT Geological Survey	State Geologist	margaret.thomas@ct.gov	860-424-3583
Rita Stewart ✓	DESPP-Demhs	Grants / Strategic planning Surv.	rita.stewart@ct.gov	860 685-8461

Connecticut Hazard Mitigation Plan Update Kick Off Meeting October 31, 2017 Sign-In Sheet

Name	Company/Department	Position	Email	Phone
Samuel DeBurra Jr. ✓	Town of Madison	Fire Marshal/EMD	deburras@madisonct.org	203-245-5617
BINU CHANDY ✓	CT DECD	Design Engr 3/PM	binu.chandy@ct.gov	860.500.2454
Michael Barnett ✓	CT DECD	Intern	mbarnett@ct.gov	860 465 7370

Connecticut Hazard Mitigation Plan Update Kick Off Meeting October 31, 2017 Sign-In Sheet

Name	Company/Department	Position	Email	Phone
DAVID KOORIS ✓	DOHousing	DIR RBD & NDR	david.kooris@ct.gov	860·841·0306
Rebecca French ✓	UConn CIRCA	DIR. Community Engagement	rebecca.french@uconn.edu	860 405 9228
Mike Muszynski ✓	CT Conference of Municipalities (CCM)	Gov. Relations Mngr.	mmuszynski@ccm-ct.org	203-500-7556
Ken Dumais ✓	DESPP/DEMHS	EMPS	Kenneth.Dumais@ct.gov	860-685-8951

Connecticut Hazard Mitigation Plan Update Kick Off Meeting October 31, 2017 Sign-In Sheet

Name	Company/Department	Position	Email	Phone
Henry Paszczuk ✓	CT DESPP/DEMHS	Regional Planner	henry.paszczuk@ct.gov	203-591-3504
John Field ✓	CT DESPP/DEMHS	Regional Coord.	john.field@ct.gov	860-685-8105
Bill Richards ✓	Milford	DEP EMD	wrichards@ci.milford.ct.us	203-671-6661
William Kenny ✓	WestCOG	Associate Planner	wkenny@westcog.org	475 323 2065
Kris Wahlgemuth ✓	CT DESPP/DEMHS	EMPS	kris.wahlgemuth@ct.gov	860 685 8552
Eugene Livshits ✓	SCRCOG	Senior Regional Planner	elivshits@scrcog.org	203-466-8626
David Kallander ✓	DPH	Toxicologist	david.kallander@ct.gov	860-509-7816
Susan Quincy ✓	DEEP/State Parks	Env. Education/Outreach	susan.quincy@ct.gov	203-734-2513
Kiernan Wholean ✓	DEEP/Air	Air Pollution Control Engr	kiernan.wholean@ct.gov	860 424 3435
Kathleen Knight ✓	DEEP/AIR	Env. Analyst	Kathleen.Knight@ct.gov	860 424 3823
Rebecca Cutler ✓	CT DAS / Construction Services	Env. Analyst III	rebecca.cutler@ct.gov	860 713 5762
Christopher Brochu ✓	CT DOT	Supervising Service Agent	chris.brochu@ct.gov	860 594 2610
Roberto Fernandez ✓	CT DOT	Transportation Planner	fernandez@ct.gov	860-594-2603
Diane Ifkovic ✓	CT DEEP	State NFIP Coordinator	diane.ifkovic@ct.gov	(860) 424-3537
Gemma Fabris ✓	DEMHS	STARC	gemma.fabris@ct.gov	860 770 5464
Karen Michaels ✓	CT DEEP	EPA III RiskMAP Coor.	karen.michaels@ct.gov	860-424-3719
Neil Brathwaite ✓	Red Cross	Regional Disaster Officer	neil.brathwaite@redcross.org	860-420-7997
Jim O'Donnell ✓	UCONN CIRCA	PROF & DIRECTOR	odonnell@uconn.edu	860 892 2489
Brian Thompson ✓	CT DEEP	Director LWRD	brian.thompson@ct.gov	860 424-3656
Joanna Wozniak-Brown ✓	NHCOG	Reg Planner	jbrown@northwesthillscog.org	8604919884
Laurie Whitten ✓	Region 3 LTR / Town Planner East Windsor	Town Planner	LWhitten@eastwindsorct.com	860 698 1387
Patrick Carleton ✓	MetroCOG	Deputy Director	PCarleton@CTMetro.org	203-366-5405

DEPARTMENT OF EMERGENCY SERVICES & PUBLIC PROTECTION

Connecticut State Natural Hazard Mitigation Plan 2018 Update – Kick Off Meeting

October 31, 2017
10:00 AM – 12:00 PM

CT DESPP/DEMHS
Room 245
1111 Country Club Road
Middletown, CT 06457

TETRA TECH | MILONE & MACBROOM | Dewberry

Meeting Agenda

- Welcome & Introductions
  - Why a hazard mitigation plan
  - Plan Update Requirements
  - Improvements to 2013
  - Plan Update Process
- Hazard Identification and Risk Assessment
  - Hazard Analysis
  - New Hazards to Consider
  - Data Availability
  - LHMP Incorporation
  - Hazard Re-Prioritization
- Mitigation Strategy and Capabilities
- Wrap Up and Future Meetings

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Introductions

- Connecticut Hazard Mitigation Planning Committee: aka "the decision makers"
  - Interagency Hazard Mitigation Committee
  - Stakeholders Group
  - Core Team
- FEMA Region I
- Dewberry Team
  - Scott Choquette – Project Manager
  - David Murphy– Deputy PM/ Outreach Lead
  - James Mawby / Cynthia Bianco – HIRA Leads

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It's Your Plan!

We are here to:

- ✓ Facilitate the process
- ✓ Lend technical expertise & consultation
- ✓ Do the heavy lifting

You are here to:

- ✓ Participate and contribute hazard information
- ✓ Make the final decisions
- ✓ Help ensure that we collectively create a plan that CT can and will use to reduce losses

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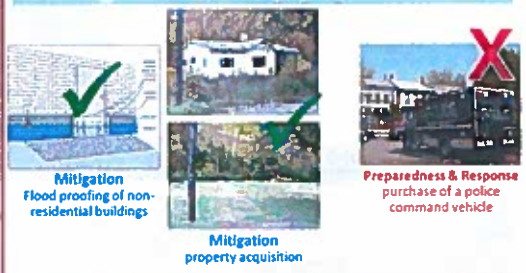
What is Mitigation?

Mitigation is any sustained action taken to reduce long-term risk to life and property from a hazard event



Mitigation
Flood proofing of non-residential buildings

Mitigation
property acquisition

Preparedness & Response
purchase of a police command vehicle

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Why a Hazard Mitigation Plan?

- Reduces or eliminates the need to respond
  - Lessening public resource burden
- Creates resiliency and sustainability
- Promotes Data sharing between different levels of government
  - Leadership by example
- Disaster Mitigation act of 2000
  - Certain Public Assistance
  - Hazard Mitigation Assistance Programs

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Plan Update Requirements

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Plan Update Requirements

- Comprehensive planning process / foster relationships
  - Description of who is involved and how the plan is prepared
  - Established method for monitoring and updating the plan
- Hazard Identification and Risk Assessment update
  - Hazard profiles, vulnerabilities, potential losses, development trends
- Focus on mitigation strategy and actions
  - Goals, progress, evaluation of actions, implementation plan
- Improve mitigation capabilities
  - Discussion of current policies, programs, and capabilities to support LHMPs and reduce risk statewide
- Approval by FEMA and adoption every 5 Years

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Improving the 2013 Plan

- *What do you like about the current State plan?*
- *How can this plan help your agency?*
- *Suggested Improvements?*
- *Notable out-of-date information?*
- *Significant hazard events since 2013?*
- *Who else should be involved in the plan update?*

Discussion:
Please document your comments on the Participant Worksheet

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Representative FEMA Recommended Revisions

Recommendation	2018 Approach
Be more clear and consistent about recognizing the existing three years of planning, occurrences, and implementation as well as the highlights of what's new or changed with this plan update.	
There are several Federal agencies funding and sponsoring projects within CT, great effort must be made in the next update to have these agencies as stakeholders. They need to be invited to participate in the planning process.	

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FEMA Recommended Revisions

Recommendation	2018 Approach
Address the coordination with FEMA and use of field office staff in the risk and mitigation strategy updates. Other federal agencies were not mentioned; include how other key federal agencies and their field offices are working with the State in identifying vulnerabilities and reducing risk.	
Provide explicit information on how the State mitigation planning process is integrated with other ongoing State planning efforts, rather than implying this can be found throughout other sections.	
A comprehensive evaluation of the state's NFIP program needs to be included. This should include success stories, state or local laws that are working to mitigate RLP & SRL properties, and a table to highlight which communities had CAVs/CACs after the previous HM Plan was approved.	

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FEMA Recommended Revisions

Recommendation	2018 Approach
The State needs to actively engage stakeholders in the monitoring of plan progress, and encourage communities to use the Community Rating System and Hazard Mitigation Plan as foundation for promoting long-term resilience.	
Note the positive changes to development that may have reduced risk, such as higher building standards, new policies, and resilient land use and transportation planning actions taken both at the State and local levels.	
In order to continue to develop vulnerability information, include problem statements to guide mitigation strategies.	

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FEMA Recommended Revisions

Recommendation	2018 Approach
Include the major changes in development with the State's largest businesses and industries. Include in the risk assessment the changes in development that reflect the changes in risk from a ~% growth (that occurred in 2010-2013) and the many approved plans and construction projects that may be affecting risk in the hazard prone areas within major cities in Connecticut.	
For State-owned or operated critical facilities located in identified hazard areas, continue to develop more specifics about the location within identified hazard areas. For example, relate any flood map information changes to facilities that have been impacted by any event.	
Include more information about funding for hazard mitigation projects, such as for staffing and for other agencies' programs (mitigation related). Ensure that ALL sources of funding used to implement mitigation actions (other than just FEMA sources) are identified.	

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FEMA Recommended Revisions

Recommendation	2018 Approach
In the next Update, upon completing an evaluation of the State's policies related to development and redevelopment in hazard prone areas, provide a general analysis of the effectiveness of these mitigation policies. For example, describe how these were and/or are working, how well, strengths and challenges etc. and if any recommended changes are necessary.	
Provide more emphasis on the effectiveness of local mitigation policies, programs, and capabilities. Include whether policies and programs worked well, if targets were met, and whether any changes are recommended.	
Consider mitigation actions that are focused and developed for better monitoring of its implementation and progress. Emphasis must be on long term risk reduction.	

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FEMA Recommended Revisions

Recommendation	2018 Approach
Continue to direct other State agencies to be responsible for mitigation actions. Although the Responsible Agency column identifies the interagency committee on some of the actions, there needs to be clear actions for each of the specific State agencies.	
There is little discussion regarding flood control projects regarding where they are located, the risk they pose, and who is maintaining them. This should be further addressed in the risk analysis as well as the mitigation strategy and evaluation.	
The consideration of repetitive loss properties must be included in the evaluation of the State's capabilities as well as the local capabilities. The State needs to do more to reduce repetitive losses by moving beyond plans to proactive approaches.	

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Planning Process

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Planning Process

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Hazard Identification and Risk Assessment

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Hazard Identification & Risk Assessment

- **Purpose:** Provides a factual basis for prioritizing hazard mitigation activities
- **Major components:**
  - Profiles of natural hazards affecting the state
  - Vulnerability of jurisdictions and loss estimation
  - Vulnerability of state owned/operated facilities and critical facilities, and loss estimation
  - Integration of local hazard mitigation plan findings

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Hazard Prioritization

Tropical Cyclone (Hurricane and Tropical Storm)
Winter Storms
Flooding
Dam Failures
Wildland Fires
Tornadoes
Drought
Earthquakes
Thunderstorm (wind)
Sea Level Rise

Discussion:

- ***Any additional hazards to consider?***
- ***Ranking and Prioritization?***

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Data Discrepancies: *Discussion*

- *What can be improved?*
- *HIRA to inform mitigation projects/activities*
- *Does your agency have new data sources that have been created since the 2013 plan revision?*
- *What types of data would you like to see in the revision?*

Discussion:

Please document your comments on the Participant Worksheet.

Dewberry

Data Needs: *Building & Critical Facilities*

- State Owned or Operated Facilities (Geospatial, addresses, types)
  - Building Specific (year, materials, value…)
  - Infrastructure
- Critical/Essential Facilities
  - Shelters, Police, Fire Dept, Hospitals
  - Local Facilities with Building Specific Parameters
  - Hazus-MH default Data

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Data Sources

- Demographics
  - 2010 Census Data
  - American Community Survey
- Hazard Data
  - Federally Declared Disasters and Significant Events (TS Irene & Hurricane Sandy)
  - Hazus-MH
  - NCEI
  - SVRGIS
  - FEMA FIRMs
  - FEMA Rep Loss
  - SLOSH
  - NWS station data
  - water supply/shortage reports
  - CT Geological Survey
  - USGS
  - National Atlas
  - CIRCA SLR
- Land Use
  - State & Local Planning Efforts (population changes and/or shifts, changes in land use activities)
  - National Land Cover Data (NLCD)

Other data sources?

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Data Transfer to Dewberry

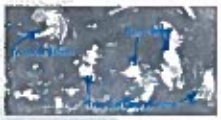
- Historical Data
- Hazard Specific Data (i.e. Dam Inundation)
- Facility (State and/or Critical)
- Insurance Claims
- Local Hazard Mitigation Plans
- Data used in previous plan and/or other planning efforts

Sarah Hamm
(203) 776-2277
shamm@dewberry.com

Secure FTP site has been established for this project

Dewberry

Tropical Cyclone (Hurricane and Trop. Storm)



Estimated losses for 5 scenarios based on HAZUS-MH

Irene (2011) and Sandy (2012, $360 million in damage)

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Winter Storms

- Blizzard, Freezing Rain, Ice Storm, Nor'easter, Sleet, Snow
- Two or more events per season

County	Total Number of 64 km/h (40 mph) Hours
Fairfield	132
Hartford	90
Litchfield	160
Middlesex	87
New Haven	112
New London	83
Tolland	94
Windham	77
Total	815

Dewberry

Flooding

- Riverine, Coastal, Flash, and Shallow Flooding
- Many past events documented – most frequent hazard in CT

County	Number of Events
Fairfield	115
Hartford	97
Litchfield	118
Middlesex	42
New Haven	114
New London	88
Tolland	16
Windham	9
Total	599

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Sea Level Rise

- CT has 618 miles of tidal shoreline and significant areas of low elevation
- Climate change is projected to result in global increases in sea level by 2100, ranging from 1-2 feet up to 6.6 feet
- New CIRCA projections of 50 CM by 2050

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Dam Failures

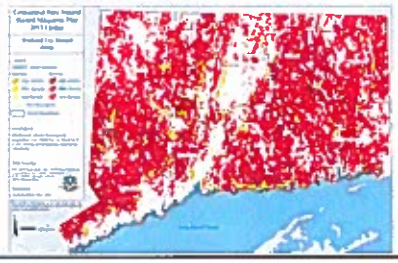
- A catastrophic event characterized by the sudden, rapid, and uncontrolled release of impounded water
- 3,958 dams in CT, 711 pose a possible threat to human life upon failure

Hazard Class Function	Number of Dams	Percentage
C – High Hazard	288	7%
B – Significant Hazard	445	11%
BB – Moderate Hazard	543	14%
A – Low Hazard	1,734	43%
AA – Negligible Hazard	153	2%
Unclassified	887	23%
Total Regulated Dams	3,958	100%

Dewberry

Wildland Fires

- Wildland fires are frequent, but low impact
- 60 percent of the state's total land area is forested
- A wildland fire becomes a threat when it nears the wildland-urban interface



Dewberry

Tornadoes

- 109 incidents from 1950 – 2012
- Only 5 events impacted people and property: claiming 4 lives, injuring 703, and causing millions of dollars in damage
- Highest Vulnerabilities:
  - Hartford County
  - New Haven County

Dewberry

Drought

- Categories: meteorological, hydrological, agricultural, and socioeconomic
- Recent droughts: 1929-1931, 1957, 1964-1966, 2002, 2007-2008, 2012 and 2015-2016.
- Climate change will increase frequency and intensity

Dewberry

Earthquake

- From 1568 to July 2009, 140 earthquakes occurred in Connecticut
- Probabilities calculated for several scenarios / locations in CT
- Loss estimations based on HAZUS- MH

Most Vulnerable:
-Hartford-East Haddam-Haddam-Portland

Dewberry

Thunderstorms (Wind)

- High winds can cause levels of damage often associated with tornadoes.
- Between 1955 and 2012, there were 2,470 wind events in CT, causing at least 19 fatalities and 154 injuries.
- Litchfield has experienced the most wind events, followed by Hartford and Fairfield.

Dewberry

Vulnerability Analysis and Loss Estimation

Requirement §201.6(c)(2)(ii)(B): [The plan should describe vulnerability in terms of an] estimate of the potential dollar losses to vulnerable structures identified in paragraph (c)(2)(ii)(A) of this section and a description of the methodology used to prepare the estimate

- Annualized loss to be based on:
  - NCEI Storm Events and other local, State and Federal data (NFIP claims)
  - Hazus-MH
- Building Specific Analysis
  - Critical and State Facilities – **Data Dependent**
- Development Trends
  - Specific areas in high risk?
- Address vulnerabilities through mitigation actions

Dewberry

Local Plan Integration

Dewberry

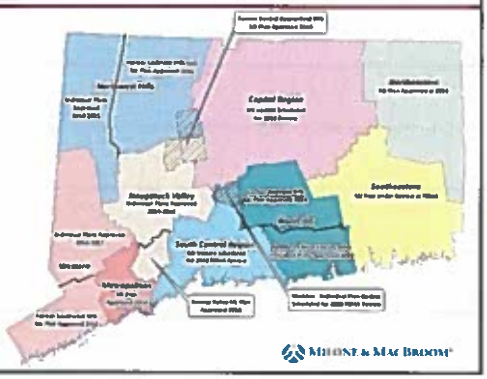
Local Plan Integration

- Survey of Plans
  - Hazard Identification terminology
  - Vulnerability and Risk Assessment methodologies
  - Types of Mitigation Actions
- Incorporate ranking and loss estimates into State vulnerability

Milone & MacBroom

Dewberry

Local Plan Integration



Milone & MacBroom

Program Capacity and Capabilities Assessment

Milone & MacBroom

Dewberry

Program Capacity and Capabilities Assessment

- This update marks the first State HMP that is fully administered by DESPP/DEMHS (DEEP oversaw the previous HMP)
- Significant DEEP re-organization has occurred
- Many municipalities and State Agencies have increased federal grant administration capabilities by necessity (saturation/maturation of CDBG-DR and other Sandy grants)
- CIRCA fully engaged and active with two grant programs

Milone & MacBroom | Dewberry

Program Capacity and Capabilities Assessment

- Updates to noted programs
  - Additional technical, personnel, or funding resources?
  - Progress achieved through noted programs
  - New programs to be included?
- Please review capabilities/programs reference to your agency for completeness and currency.
- Please document your comments on the Participant Worksheet.

Milone & MacBroom | Dewberry

Mitigation Goals, Objectives and Strategies

Dewberry

HIRA → Mitigation Strategies

Validate or Modify Mission Statement:

"to mitigate the effects of natural hazards by minimizing loss of life and property damage"

Dewberry

2013 Mitigation Goals and Objectives

- **Goal 1:** Promote implementation of sound floodplain management and other natural hazard mitigation principles on a state and local level
  - **Objective:** To increase general awareness of Connecticut's natural hazards and encourage State agencies, local communities, and the general public to be proactive in taking actions to reduce long-term risk to life and property.
    - **Strategy 1:** Provide technical guidance
    - **Strategy 2:** Provide and promote educational opportunities
    - **Strategy 3:** Investigate climate change adaptation strategies
    - **Strategy 4:** Increase coordination and leverage resources across State agencies

Dewberry

2013 Mitigation Goals and Objectives

- **Goal 2:** Implementation of effective natural hazard mitigation projects on a state and local level
  - **Objective:** To enhance the ability of State agencies and local communities to reduce or eliminate risks to life and property from natural hazards through cost-effective hazard mitigation projects, including avoidance.
    - **Strategy 1:** Refine State-level priorities and evaluation criteria for hazard mitigation project funding
    - **Strategy 2:** Prioritize climate change adaptation strategies and relocation for State-owned facilities
    - **Strategy 3:** Provide data, training, and technical assistance
    - **Strategy 4:** Increase the availability of funding mechanisms
    - **Strategy 5:** Monitor the implementation of hazard mitigation projects

Dewberry

2013 Mitigation Goals and Objectives

- **Goal 3:** Increase research and planning activities for the mitigation of natural hazards on a state and local level
  - **Objective:** To increase general awareness of Connecticut's natural hazards and encourage State agencies, local communities, and the general public to be proactive in taking actions to reduce long-term risk to life and property.
    - **Strategy 1:** Promote natural hazard mitigation research and planning activities
    - **Strategy 2:** Provide outreach and educational opportunities
    - **Strategy 3:** Incorporate climate change adaptation strategies
    - **Strategy 4:** Engage the private sector and non-profit organizations in hazard mitigation planning activities

Dewberry

Mitigation Activities

- Updates to all prior activities (Table 5-1) (Exercise)
  - Completed, Partially Completed / Continuing, Deferred, Cancelled
  - Narratives explaining status
- Identify new activities based on updated HIRA and capabilities / program capacity – Next Meeting
- Evaluate and prioritize all proposed activities for 2018–2023 – Next Meeting

Milone & MacBroom

Dewberry

State Level Plan Integration

Milone & MacBroom

Dewberry

State Level Plan Integration

- Discusses the State's support to the locals in developing local hazard mitigation plans and also regional hazard mitigation plans.
  - Provide an update on training conducted for locals, by the state
  - Discuss technical assistance
  - Update adoption dates
- Discuss funding availability to local jurisdictions in developing their mitigation plans.
- Discuss state support of local mitigation projects.

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State Level Plan Integration

- Local initiatives with potential statewide significance are underway or wrapping, and need to be considered:
  - SCRCOG HMP Update draft due spring 2018
  - CRCOG HMP Update draft due summer 2018
- Statewide initiatives underway or wrapping up:
  - State Water Plan – Draft June 2017 issued to the Water Planning Council; **public comment is underway**; the draft mentions the need for consistency with the Connecticut HMP
  - Connecticut Drought Preparedness and Response Plan – Revised draft issued in 2017; finalization tabled for Water Planning Council action

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Plan Integration

- State Conservation and Development Policies Plan 2018-2023 Revised Draft – **Public comment period closed on October 16, 2017**
- Comprehensive Energy Strategy – Draft 2017; thousands of comments received; **final due November 2017**
- State Building Code - Intent to adopt the 2018 State Building and Fire Safety Codes based on the 2015 editions of the International Code Council (ICC) and National Fire Protection Association (NFPA) documents; technical review conducted January 2017-September 2017; **adoption planned for 2018**
- Historic and Cultural Resources Resilience / SHPO project

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Outreach and Participation

- Steering Committee HIRA focus groups & WebEx
  - Contacts for Capability Assessment
- Online Survey
  - Distribute via press release, email distribution, social media
- Social media updates
  - What works well?
- Plan link on CT DESPP/DEMHS website requesting review and feedback

Wrap Up & Future Meetings

- Project Schedule
  - Data and Report Collection
  - HIRA Draft Review
  - Capability Assessment

- Next Committee Meeting
  - Review and brainstorm mitigation action plan based on early HIRA results
  - Draft HIRA Presentation & Mitigation Strategies Completion

Questions?

Scott Choquette
schoquette@dewberry.com
203.776.2277

Connecticut State Hazard Mitigation Plan Update Kick-Off Meeting
October 31, 2017

Participant Worksheet

Name:	Gemma Fabris	**Agency**	DEMHS
Email:	Gemma.fabris@ct.gov	**Phone:**	860 770 5464

1. What data can your agency provide regarding the **costs and impacts** of past natural hazard events? DEMHS can provide - PA FUNDING NUMBERS (PUBLIC ASSISTANCE Program) & HMGP #'s - Both Awarded (Obligated) + Complete - By Disaster. As well as FMA + PDM ANNUAL Mitigation grant funding #s - Can mitigate against damages due to N. Hazards.
2. Does your agency have mapping or tabular (spreadsheet) data regarding **specific areas** in the State of Connecticut at risk to the identified hazards, and/or **facilities vulnerable** to natural hazards? Yes. Operations has center

3. What **programs** does your agency offer that support risk reduction activities?

HMGP, FMA, HMGP, HSGP, EMPG

[School Security] is not mitigation against nat. hazards though.

4. What **policies** does your agency enforce that encourage mitigation measures?

None

Sorry about Thermos!

5. What **funding** opportunities does your agency offer for risk reduction, community resiliency, and mitigation activities? See #3

Put on stories - interviews - of EM Officials Aware. Make plan more engaging = Gets used more.

6. What **improvements** / inclusions would you like to see in the updated Connecticut Hazard Mitigation Plan? Also, greater emphasis on risk perception vs. real risk - public communication/education outreach - what mitigations are towns talking w/ regards to this? to highlight greater coordination between agencies prior to adr to coordinate sources of funding (so 2 agencies aren't doing the same thing) Also to improve assistance to 1 local communities in aftermath of DR due to increased funding [illegible] of funding sources as identified prior would be

Other General Notes and Information to Share:

recognize effects implemented mitigation measures have had upon response and recovery efforts +

Assess these mitigation measures w/ these things in mind so as to ensure that mitigating damage from one thing doesn't lead to negatively affecting another (i.e. reduction in response times).

Quantify impact building to higher standards has - [codes + standards can be its own mitigation]

Great presentation! Thank you!

- Gemma

Connecticut State Hazard Mitigation Plan Update Kick-Off Meeting
October 31, 2017

Participant Worksheet

Name:	Henry Paszczuk	Agency	DESPP / DEMHS
Email:	henry.paszczuk@ct.gov	Phone:	203-591-3504

1. What data can your agency provide regarding the **costs and impacts** of past natural hazard events?

2. Does your agency have mapping or tabular (spreadsheet) data regarding **specific areas** in the State of Connecticut at risk to the identified hazards, and/or **facilities vulnerable** to natural hazards?

3. What **programs** does your agency offer that support risk reduction activities?

   Assist with local HAZ MIT planning

4. What **policies** does your agency enforce that encourage mitigation measures?

5. What **funding** opportunities does your agency offer for risk reduction, community resiliency, and mitigation activities? FEMA HMP

6. What **improvements** / inclusions would you like to see in the updated Connecticut Hazard Mitigation Plan?

Other General Notes and Information to Share:

Participant Worksheet

Name:	Mike Muszynski	**Agency**	CT Conference of Municipalities
Email:	mmuszynski@ccm-ct.org	**Phone:**	203-500-7556

1. What data can your agency provide regarding the **costs and impacts** of past natural hazard events?
   We could send out a survey to member CT municipalities (165 of 169) to provide cost of natural hazard events. Our surveys do not always yield 100% return of responses, but at least 50% is typical!

2. Does your agency have mapping or tabular (spreadsheet) data regarding **specific areas** in the State of Connecticut at risk to the identified hazards, and/or **facilities vulnerable** to natural hazards?
   No

3. What **programs** does your agency offer that support risk reduction activities?
   Education and workshop for municipal officials on a variety of topics.

4. What **policies** does your agency enforce that encourage mitigation measures?
   None

5. What **funding** opportunities does your agency offer for risk reduction, community resiliency, and mitigation activities?
   None

6. What **improvements** / inclusions would you like to see in the updated Connecticut Hazard Mitigation Plan?
   Would need to refresh my memory through review

Other General Notes and Information to Share:

The main/principal municipal officials that CCM works with are the CEO's. We can certainly highlight the plan (or components) in order to get the Local CEO "buy in" or understanding.

We can do this through speaking at an event, or getting information directly out the officials.

Connecticut State Hazard Mitigation Plan Update Kick-Off Meeting
October 31, 2017

Participant Worksheet

Name:	Michael Hope	**Agency**	Public Health / DWSRF
Email:	michael.hope@ct.gov	**Phone:**	860-509-7333

1. What data can your agency provide regarding the **costs and impacts** of past natural hazard events?
   We have some data on impacts of past events such as flooding + drought on public water systems statewide.

2. Does your agency have mapping or tabular (spreadsheet) data regarding **specific areas** in the State of Connecticut at risk to the identified hazards, and/or **facilities vulnerable** to natural hazards?
   We have mapping + tabular data regarding public water supply facilities + health care facilities statewide

3. What **programs** does your agency offer that support risk reduction activities?
   DWSRF noted in (5)
   Water supply planning / Emergency Response plans including vulnerability Assessments and drought plans

4. What **policies** does your agency enforce that encourage mitigation measures?
   Emergency power (generators) & emergency response plans for all Community water suppliers statewide

5. What **funding** opportunities does your agency offer for risk reduction, community resiliency, and mitigation activities?
   Low interest loans via Drinking Water State Revolving Fund (DWSRF) are available to eligible public water systems to shore up their facilities + provide hazard mitigation.

6. What **improvements** / inclusions would you like to see in the updated Connecticut Hazard Mitigation Plan?
   Include stakeholders such as the power/gas companies and water utilities (i.e. Utilities)

Other General Notes and Information to Share:

Connecticut State Hazard Mitigation Plan Update Kick-Off Meeting
October 31, 2017

Participant Worksheet

Name:	George Bradner	**Agency**	DOI
Email:	george.bradner@ct.gov	**Phone:**	860-297-3866

1. What data can your agency provide regarding the **costs and impacts** of past natural hazard events?
   Industry loss Data From Irene + Sandy

2. Does your agency have mapping or tabular (spreadsheet) data regarding **specific areas** in the State of Connecticut at risk to the identified hazards, and/or **facilities vulnerable** to natural hazards?
   NO

3. What **programs** does your agency offer that support risk reduction activities?
   Participate on the Codes + Standards For State Bldg Codes.

4. What **policies** does your agency enforce that encourage mitigation measures?
   - Insurance company credits For mitigation
   - rate Filings By Co's

5. What **funding** opportunities does your agency offer for risk reduction, community resiliency, and mitigation activities?
   - Chair State Long Term recov ESF-14
   - Codes + Standards review Process/Review of 2015 IRC

6. What **improvements** / inclusions would you like to see in the updated Connecticut Hazard Mitigation Plan?
   - The Hurricane section is very weak towns point to insurance as the solution no consideration of Flood or lack of Flood insurance For coastal communities. no contemplation of impacts on property [illegible] not getting TAX's after catastrophe

Other General Notes and Information to Share:

Connecticut State Hazard Mitigation Plan Update Kick-Off Meeting
October 31, 2017

Participant Worksheet

Name:	BINU CHANDY	Agency	CT DECD (Dept. of Economic & Community Dev)
Email:	binu.chandy@ct.gov	Phone:	860.500.2454

1. What data can your agency provide regarding the **costs and impacts** of past natural hazard events?
   - Costs on businesses / companies – after a natural hazard. (may be the major ones)
   2. Broad economic impacts.
2. Does your agency have mapping or tabular (spreadsheet) data regarding **specific areas** in the State of Connecticut at risk to the identified hazards, and/or **facilities vulnerable** to natural hazards?

   N/A.

   Capability Assessment
   Include SHPO capability under DECD.
3. What **programs** does your agency offer that support risk reduction activities?

   None - We should try and include this as a strategy. We work with number of municipalities, & businesses – ~~way~~
4. What **policies** does your agency enforce that encourage mitigation measures?

   All state statutes & regs have to be followed for any projects funded by DECD
   - permit
   - certification etc etc.
5. What **funding** opportunities does your agency offer for risk reduction, community resiliency, and mitigation activities?

   No direct funding programs but indirectly involved in projects (infrastructure) that receive state funding.

   [SHPO – Sandy Evers]
6. What **improvements** / inclusions would you like to see in the updated Connecticut Hazard Mitigation Plan?

   Outreach / Education to (business / industry / companies)

   Community

   Reduce impacts → post-disaster

   Email blasts before or during disaster

Other General Notes and Information to Share:

Connecticut State Hazard Mitigation Plan Update Kick-Off Meeting
October 31, 2017

Participant Worksheet

Name:	PATRICK CARLETON	Agency	METROCOG
Email:	PCARLETON@CTMETRO.ORG	Phone:	203-366-5405

1. What data can your agency provide regarding the **costs and impacts** of past natural hazard events?

   WE HAVE THIS DATA FROM OUR LAST UPDATE IN 2014.

2. Does your agency have mapping or tabular (spreadsheet) data regarding **specific areas** in the State of Connecticut at risk to the identified hazards, and/or **facilities vulnerable** to natural hazards?

   YES. IN OUR LAST REGIONAL NATURAL HAZARD MITIGATION PLAN (2014) WE IDENTIFIED SPECIFIC AREAS IN OUR REGION THAT ARE MORE VULNERABLE TO SPECIFIC HAZARDS. WE CAN PROVIDE A LIST OF THOSE AREAS AND FACILITIES IF NECESSARY.

3. What **programs** does your agency offer that support risk reduction activities?

   METROCOG WORKS WITH LOCAL MUNICIPALITIES TO DEVELOP THE REGIONAL NATURAL HAZARD MITIGATION PLAN. WE HAVE ALSO ASSISTED THE TOWN OF FAIRFIELD APPLY FOR AND GAIN ACCEPTANCE TO THE CRS PROGRAM. WE WILL BE WORKING WITH THE TOWNS OF STRATFORD AND TRUMBULL & THE CITY OF BRIDGEPORT ABOUT POSSIBLE ENROLLMENT INTO CRS

4. What **policies** does your agency enforce that encourage mitigation measures?

   AS THE REGIONAL PLANNING AGENCY WE ADVISE OUR MUNICIPALITIES TO CONSIDER MITIGATION STRATEGIES BUT WE ARE UNABLE TO ENFORCE MITIGATION MEASURES. OUR REGIONAL PLANNING & WE TRY TO INCORPORATE MITIGATION MEASURES INTO ALL OF OUR PROJECTS PoCD AND OTHER PLANNING DOCUMENTS SPEAK EXTENSIVELY TO MITIGATION.

5. What **funding** opportunities does your agency offer for risk reduction, community resiliency, and mitigation activities?

   OUR PRIMARY FUNDING IS THROUGH FHWA FOR TRANSPORTATION PLANNING & IMPROVEMENTS. ANY FUNDING WE UTILIZE OR OFFER TO OUR MUNICIPALITIES REQUIRE US TO LOOK AT RESILIENCY & MITIGATION EFFORTS AND PROGRAM

6. What **improvements** / inclusions would you like to see in the updated Connecticut Hazard Mitigation Plan?

   HAZARDS ARE NOT SPECIFIC TO ONE LOCAL JURISDICTION THEREFORE IT'S VITAL THAT THE STATE PLAN LOOK AT MITIGATION PLANNING FROM A REGIONAL LEVEL. THE STATE PLAN SHOULD BE DEVELOPED WITH STRONG INPUT FROM THE COUNCILS OF GOVERNMENTS

Other General Notes and Information to Share:

GREAT SESSION ~~[illegible]~~ LOOKING FORWARD TO WORKING ON THE UPDATE OF THE STATE PLAN

Connecticut State Hazard Mitigation Plan Update Kick-Off Meeting
October 31, 2017

Participant Worksheet

Name:	Jeff Semancik	**Agency**	DEEP
Email:	jeffrey.semancik@ct.gov	**Phone:**	(860) 424-4190

1. What data can your agency provide regarding the **costs and impacts** of past natural hazard events?

2. Does your agency have mapping or tabular (spreadsheet) data regarding **specific areas** in the State of Connecticut at risk to the identified hazards, and/or **facilities vulnerable** to natural hazards?
Consider existing Superfund/CERCLA (Remediation) Sites (issue post Hurricane Harvey)
Nuclear Facilities & (other) Facilities w/ radioactive materials (Hospitals, etc.)

3. What **programs** does your agency offer that support risk reduction activities?
REP

4. What **policies** does your agency enforce that encourage mitigation measures?

5. What **funding** opportunities does your agency offer for risk reduction, community resiliency, and mitigation activities?

6. What **improvements** / inclusions would you like to see in the updated Connecticut Hazard Mitigation Plan?

Other General Notes and Information to Share:

Dominion Energy has implemented SAFER (Strategic Alliance for Flex Emergency Response) to improve Nuclear Plant resilience post-Fukushima

They have also re-analyzed earthquake & Flood Risk post-Fukushima

US Nuclear Regulatory Commission (US NRC) is federal agency providing oversight

---

Is severe temperature (such as Polar Vortex) included in natural hazards? This can create a significant impact on Gas demand, electrical, etc.

~~This could be~~

In these cases, many large electrical generators were unable to operate due to frozen equipment, etc. (such as pipes) that could be protected by resilience options.

Do we conduct Post-Event analysis of plan effectiveness?

Participant Worksheet

Name:	Rebecca Cutler	**Agency**	DAS Construction Services
Email:	rebecca.cutler@ct.gov	**Phone:**	860-713-5762

1. What data can your agency provide regarding the **costs and impacts** of past natural hazard events?

2. Does your agency have mapping or tabular (spreadsheet) data regarding **specific areas** in the State of Connecticut at risk to the identified hazards, and/or **facilities vulnerable** to natural hazards?
   GIS - State-owned & operated facilities

3. What **programs** does your agency offer that support risk reduction activities?

4. What **policies** does your agency enforce that encourage mitigation measures?

5. What **funding** opportunities does your agency offer for risk reduction, community resiliency, and mitigation activities?

6. What **improvements** / inclusions would you like to see in the updated Connecticut Hazard Mitigation Plan?

Other General Notes and Information to Share:

Who else should be involved?

- Jeff Bolton, Eversource
- Bob Celmer, DAS Office of School Construction + Grants (formerly Office of School Facilities)
- Office of State Building Inspector (Joe Cassidy)
  - resiliency group committee

Connecticut State Hazard Mitigation Plan Update Kick-Off Meeting
October 31, 2017

Participant Worksheet

Name:	Doug Royalty	**Agency**	DECD / SHPO
Email:	douglas.royalty@ct.gov	**Phone:**	860 500 2347

1. What data can your agency provide regarding the **costs and impacts** of past natural hazard events? See Binu Chandy's response for non-SHPO DECD data.

2. Does your agency have mapping or tabular (spreadsheet) data regarding **specific areas** in the State of Connecticut at risk to the identified hazards, and/or **facilities vulnerable** to natural hazards? Our office (with Dewberry and Milone + MacBroom) has produced GIS data on historic resources in the coastal counties that are vulnerable to flooding and sea level rise. We also have produced databases on historic resources in those counties: historic buildings and districts; dams; archaeological resources; underwater archaeological resources.

3. What **programs** does your agency offer that support risk reduction activities? SHPO has supported technical assistance and outreach to municipalities that encourages them to incorporate historic preservation values and risk assessments in local plans of conservation + development, hazard resiliency plans, coastal resiliency plans, and emergency operations plans.

4. What **policies** does your agency enforce that encourage mitigation measures? National Park Service expected to provide guidance on building elevation (historic structures) that may become part of CT SHPO guidance. Ditto, other measures to protect historic properties from effects of climate change.

5. What **funding** opportunities does your agency offer for risk reduction, community resiliency, and mitigation activities? See Nos. 2 + 3 above. These activities funded through National Park Service's Emergency Supplemental Historic Preservation Fund (Hurricane Sandy program).

6. What **improvements** / inclusions would you like to see in the updated Connecticut Hazard Mitigation Plan? Consideration of historic / cultural resources - risks and vulnerabilities
   - importance of such resources
   - how to respond to disaster, mitigate
   - federal and state policies
   - interaction w/ local practices

Other General Notes and Information to Share:

Participant Worksheet

Name:	SAMUEL DEBURRA JR.	**Agency**	TOWN OF MADISON
Email:	deburrasc@madisonct.org	**Phone:**	203-245-5617

1. What data can your agency provide regarding the **costs and impacts** of past natural hazard events? LABOR COSTS FOR PW, PD, FD, EMS
   REPAIR COSTS FOR ROADS & INFRASTRUCTURE

2. Does your agency have mapping or tabular (spreadsheet) data regarding **specific areas** in the State of Connecticut at risk to the identified hazards, and/or **facilities vulnerable** to natural hazards? NO

3. What **programs** does your agency offer that support risk reduction activities?
   IN DEVELOPMENT FOR PUBLIC EDUCATION

4. What **policies** does your agency enforce that encourage mitigation measures?
   NONE

5. What **funding** opportunities does your agency offer for risk reduction, community resiliency, and mitigation activities?
   NONE

6. What **improvements** / inclusions would you like to see in the updated Connecticut Hazard Mitigation Plan?

Other General Notes and Information to Share:

Participant Worksheet

Name:	Douglas Glowacki	**Agency**	DEMHS
Email:	douglas.glowacki@CT.gov	**Phone:**	860-685-8469

1. What data can your agency provide regarding the **costs and impacts** of past natural hazard events?
   Costs can be derived from our PA/IA activity during the past 5 years.

2. Does your agency have mapping or tabular (spreadsheet) data regarding **specific areas** in the State of Connecticut at risk to the identified hazards, and/or **facilities vulnerable** to natural hazards?
   Only to the extent that we have conducted hazard mitigation projects in vulnerable areas. We also have databases of certain critical facilites such as nursing homes in the coastal floodplain.

3. What **programs** does your agency offer that support risk reduction activities?
   In-Directly the EMPG program provides enhanced response capabilities.

4. What **policies** does your agency enforce that encourage mitigation measures?
   DEMHS is not a ~~reg~~ regulatory agency however we do conduct outreach after disasters to encourage municipalities to apply for HMGP funding.

5. What **funding** opportunities does your agency offer for risk reduction, community resiliency, and mitigation activities?
   Natural Hazards → Limited to the federal programs (e.g. HMGP, FMA etc.) offered by FEMA.
   Human Caused - 10 Million Dollars for School Security. (Currently Active)

6. What **improvements** / inclusions would you like to see in the updated Connecticut Hazard Mitigation Plan?
   Include a 1-foot freeboard HAZUS run for the 100-year riverine event.
   Extreme temperature response.

Other General Notes and Information to Share:

Very low risk high impact events: Tsunami

Connecticut State Hazard Mitigation Plan Update Kick-Off Meeting
October 31, 2017

Participant Worksheet

Name:	Karen A Michaels	**Agency**	DEEP
Email:	karen.michaels@ct.gov	**Phone:**	860-424-3719

1. What data can your agency provide regarding the **costs and impacts** of past natural hazard events? FEMA Data. GIS data Layers, environmental info & data

2. Does your agency have mapping or tabular (spreadsheet) data regarding **specific areas** in the State of Connecticut at risk to the identified hazards, and/or **facilities vulnerable** to natural hazards? yes

3. What **programs** does your agency offer that support risk reduction activities?
environmental planning & permitting

4. What **policies** does your agency enforce that encourage mitigation measures?
environmental planning, permitting & regulatory issues

5. What **funding** opportunities does your agency offer for risk reduction, community resiliency, and mitigation activities? currently N/A
potential clean water program.

6. What **improvements** / inclusions would you like to see in the updated Connecticut Hazard Mitigation Plan? updated risks assessments & vulnerability analysis. also an updated analysis of the state's capabilities regarding hazard ~~mitigation~~, mitigation implementation

Other General Notes and Information to Share:

Connecticut State Hazard Mitigation Plan Update Kick-Off Meeting
October 31, 2017

Participant Worksheet

Name:	Diane Ifkovic	**Agency**	CTDEEP
Email:	diane.ifkovic@ct.gov	**Phone:**	(860) 424-3537

1. What data can your agency provide regarding the **costs and impacts** of past natural hazard events? NFIP Claims/insurance data
   RLP + SRLP lists

2. Does your agency have mapping or tabular (spreadsheet) data regarding **specific areas** in the State of Connecticut at risk to the identified hazards, and/or **facilities vulnerable** to natural hazards? FEMA FIRMs/FIS
   SLOSH maps

3. What **programs** does your agency offer that support risk reduction activities?
   State NFIP Coordinator
   State Risk MAP Coordinator
   State Geologist
   Coastal permitting + site (coastal) plan review
   Clean Water Fund
   Watershed Coordinators
   State Flood Management Certification Program

4. What **policies** does your agency enforce that encourage mitigation measures?
   State Flood Management Certification program for state-funded projects in the floodplain
   Coastal Permitting + Site Plan Review

5. What **funding** opportunities does your agency offer for risk reduction, community resiliency, and mitigation activities?
   Land Acquisition grants, potential to buy openspace in floodplain
   Clean Water Fund – will fund resiliency projects at waste water (water +) treatment plants.
   State Bond Funds
   [NRCS + USACE used recently for funding projects]

6. What **improvements** / inclusions would you like to see in the updated Connecticut Hazard Mitigation Plan?
   More Coordination between State + Local POCD and haz mit plans

Other General Notes and Information to Share:

Contact UCONN CLEAR + Sea Grant, Saybrook Rd, Haddam for data + staff input
GI and use data

DEPARTMENT OF EMERGENCY SERVICES & PUBLIC PROTECTION
EMERGENCY MANAGEMENT & HOMELAND SECURITY

Connecticut State Hazard Mitigation Plan Update Stakeholder Meeting #2

Agenda

May 9, 2018 9:00 AM –3:00 PM

CT DESPP/DEMHS – 1111 Country Club Road, Middletown, CT 06457

Room 349

Purpose: *Progress on the mitigation plan update: presentation of the hazard identification and risk assessment results and further development of the mitigation goals, objectives and actions.*

Description	Lead	Time
Welcome and Introductions • Timeline for Review and Approval • Progress to Date ○ Draft Plan Comments and Review Procedure	Rita Stewart, DEMHS Scott Choquette, Dewberry	9:00 – 9:30
Capabilities Assessment • Incorporation of Comments Public Outreach https://www.surveymonkey.com/s/cthazardmitigationplan	David Murphy, Dewberry Team (Milone & MacBroom)	9:30 – 9:45

Hazard Identification and Risk Assessment
• Review of Hazard Identification
• Ranking Methodology
  ○ Historical Events
  ○ Critical & State Facilities
  ○ Local Plan Incorporation
	Scott Choquette, Dewberry
	Cynthia Bianco, Dewberry Team (Tetra Tech)
		9:45 – 10:45

BREAK		10:45 – 11:00
Summary of Hazard Specific Analysis • Flood-related Hazards • Winter Weather • Wind-related Hazards • Wildfire • Drought • Earthquake	Scott Choquette, Dewberry Cynthia Bianco, Dewberry Team (Tetra Tech)	11:00 – 12:15
LUNCH		12:15-1:15
Mitigation Action Plan: Revision and Brainstorming • Goal and Objective review • Mitigation Action Development & Prioritization	David Murphy, Dewberry Team (Milone & MacBroom)	1:15 – 1:30
Small Group Discussions: Mitigation Actions	Dewberry Team Members	1:30-2:45
Small Group Summaries Wrap Up and Future Meetings • Project Schedule - Milestones • Next Mitigation Committee Meeting • Overview of Action Items	Scott Choquette, Dewberry	2:45-3:00

Dewberry

2018 CT NHMP Update – Full Committee Meeting #2
Wednesday, May 9, 2018

Name	Title / Affiliation	Email	Telephone
Cynthia Addonizio Bianco	Resiliency Planner TE/Dewberry	cynthia.bianco@tetratech.com	973-630-8044
David Murphy	Subconsultant	dmurphy@mmi.nc.com	(203)271-1773
Diane Ifkovic	CTDEEP, State NFIP Coordinator	diane.ifkovic@ct.gov	(860)424-3537
Karen Michaels	CTDEEP RiskMAP Coor.	karen.michaels@ct.gov	(860) 424-3779
Phyllis Detwiler	Am. Red Cross CT&RI	Phyllis.detwiler@redcross.org	401 585 5496
Jubenil Gonzalez	AID emergency management	Jubenil.Gonzalez@southwindsor.org	860-805-1319
Kathleen Knight	CT DEEP, Air	Kathleen.Knight@ct.gov	860 424 3823
William Kenny	WestCOG	wkenny@westcog.org	4753232065
Chris Brochu	DOT Supervisor	chris.brochu@ct.gov	8605942610
Margaret Thomas	DEEP Geological Survey	margaret.thomas@ct.gov	860 424 3583

2018 CT NHMP Update – Full Committee Meeting #2
Wednesday, May 9, 2018

Name	Address	Email	Telephone
✓ LynnePikeDiSanto	CRCOG 241 Main St Hartford, CT 06106	lpikedisanto @crcog.org	860-522-2217 x2411
✓ David Kallander	410 capitol Ave, Hartford DPH	David.kallander@ct.gov	860-509-7916
✓ Kris Wahlgenroth	1111 Country Club Rd Middletown	Kris.wahlgenroth @ct.gov	860 685 8552
✓ Rita Stewart	DEMHS	Rita.Stewart@ct.gov	8461
✓ James McLoughlin	1712 Main St Coventry CT	JMcLoughlin@coventryct.org	860 5312563
✓ BrendaBergeron	DESPP DemHS	brenda.bergeron @ct.gov	860 685-8541
BINU CHANDY	CTDECD – 450 Columbus Blvd. Hartford CT 06103	binu.chandy @ct.gov	860-500-2454
✓ DOUG ROYALTY	State Historic Preservation Office / DECD - 450 columbus BLVD Hartford CT 06103	douglas.royalty @ct.gov	860-500-2347
✓ Francesca Provenzano	410 Capitol Ave. Hartford, CT	francesca.provenzano @ct.gov	860/509-7390
✓ BILL RICHARDS	72 NEW HAVEN AV MILFORD, CT. 06460	wrichards@ ci.milford.ct.us	203-671-6661
✓ PATRICK CARLETON	METRO COG 1000 LAFAYETTE BOULEVARD SUITE 925 BRIDGEPORT, CT 06604	PCARLETON@CTMETRO.ORG	203-366-5405

2018 CT NHMP Update – Full Committee Meeting #2
Wednesday, May 9, 2018

Name	Title / Affiliation	Email	Telephone
Chris Martin	Director DEEP Forestry	christopher.martin@ct.gov	860 424 3630
Brian Balukonis	Silver Jacket Coor. USACE New England Dist.	brian.balukonis@usace.army.mil	978-318-8643
Douglas Glowacki	DEMHS	douglas.glowacki@CT.gov	860-250-2358
Noah Slovin	MMI	nslovin@mminc.com	
MARTIN	NOR TOR/WESTON	[illegible]	860 489-
Eric Soouille	DESPP/DEMHS	Eric.Soouille@ct.gov	860-309-8760
Peggy Diaz	DEEP / Energy	Peggy.diaz@ct.gov	(860) 827-2680
Connie Mendolia	CTDEEP / P2	connie.mendolia@ct.gov	860-424-3243

2018 CT NHMP Update – Full Committee Meeting #2
Wednesday, May 9, 2018

Name	Address	Email	Telephone
George Bradner	153 Market St Hartford, CT	on File	860-297-3866
Mark Fangiullo	107 Selden St.	mark.fangiullo@cwrsource.com	860-665-2664
Michael Errata	979 Main St, Willimantic, CT 06226	MErrata@Windham-ct.com	860-465-3044
Gemma Fabris	1111 County Club RD Middletown	gemma.fabris@ct.gov	860-770-5464
Eugene Livshits	127 Washington Ave, 4th FL west, North Haven	elivshits@scrcog.org	203-466-8626

Connecticut State Hazard Mitigation Plan 2013 Update: Progress & Mitigation Action Plan

June 5th, 2013

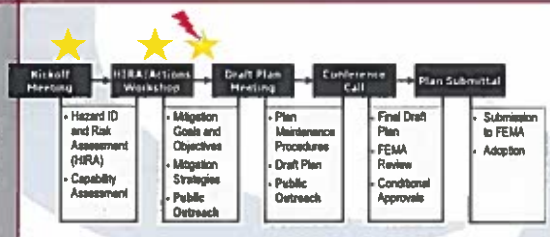
9:00 AM – 3:00 PM
CT DEEP
Holcombe Room, 5th Floor
79 Elm Street
Hartford, CT 06066

Meeting Agenda

- Welcome & Introductions
  - Timeline for Review and Approval
  - Progress to Date
- Capabilities Assessment & Public Outreach
- Hazard Identification & Risk Assessment
- Mitigation Action Plan
  - Goals
  - Objectives
  - Project Development
- Small Group Exercise
- Wrap Up and Future Meetings

Dewberry

Planning Process



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Program Capacity / Statewide Capabilities

- Edits and suggestions received from state agency representatives
- Describes the following agency changes and their missions:
  - Connecticut Department of Environmental Protection (DEP) merged with Department of Public Utility Control (PDUC) to form the Department of Energy and Environmental Protection (DEEP)
  - PURA and the Bureau of Energy and Technology Policy
  - Department of Emergency Management and Homeland Security (DEMHS) combined with the Department of Public Safety, forming the Department of Emergency Services and Public Protection (DESPP) with a Division of Emergency Management and Homeland Security
  - Office of State Building Inspector (OSBI) and the State Building Code staff were merged into a new Department of Construction Services (DCS)

Dewberry

Program Capacity / Statewide Capabilities

- The update describes the work of committees and task forces that are concerned with climate change and disaster recovery:
  - The Adaptation Subcommittee of the Governor's Steering Committee on Climate Change
  - The Governor's Two Storm Panel
  - The Connecticut GIS Council's Storm Response and Recovery Assessment Group
  - The Shoreline Preservation Task Force
  - The State's Long-Term Recovery Committee
  - The State Vegetation Management Task Force

Dewberry

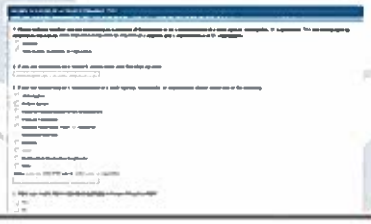
Program Capacity / Statewide Capabilities

- The update expands the discussion for:
  - Municipal departments and commissions
  - Regional planning organizations (the COGs and RPAs)
- The update adds the following:
  - DEEP OLISP Technical Services and Grant Programs
  - RiskMAP
  - Updates to State Conservation and Development Policies Plan
  - University of Connecticut CLEAR/Sea Grant
  - The Nature Conservancy
  - ctWARN
  - Others

Dewberry

Public Outreach

- Online Survey closes June 18
- https://www.surveymonkey.com/s/cthazardmitigationplan
- Links were posted on ct.gov and DEEP web pages
- Emails from Karen to municipal officials and RPOs
- Approximately 120 responders have taken the survey



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Public Outreach

- Survey announcements posted to 27 editions of Patch.com

Input Needed for Update to the Connecticut Hazard Mitigation Plan

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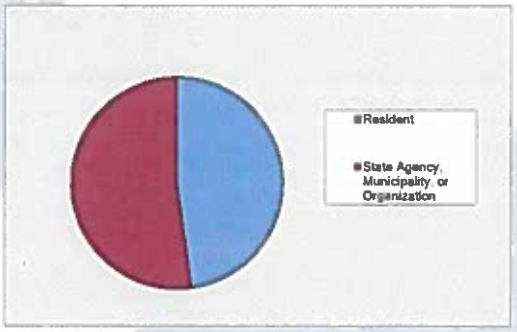
Public Outreach Survey

Composition of responders



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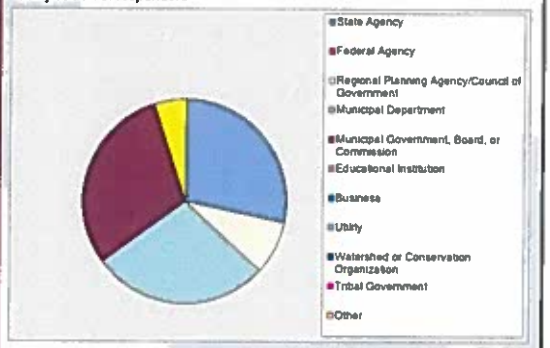
Public Outreach Survey

Composition of responders



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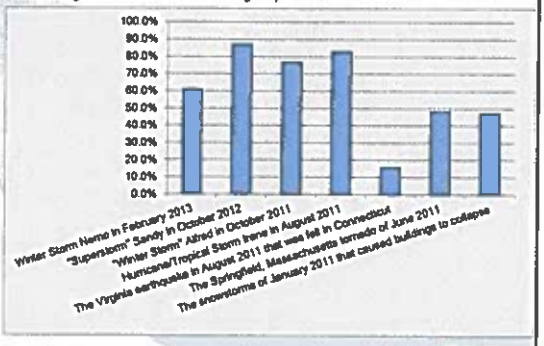
Public Outreach Survey

What has generated awareness among responders?



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Public Outreach Survey

What has generated awareness among responders?

- Additional Responses for Question 6
  - I've always know about them
  - The news
  - Job-related awareness
  - Hamden tornado of late 1980s
  - Bridgeport tornado
  - Wethersfield tornado of late 2009
  - Floods that close roads
  - October 2010 flooding following several days of rain
  - Mississippi River flooding and Midwest droughts
  - Japanese tsunami
  - Quickening of climate change

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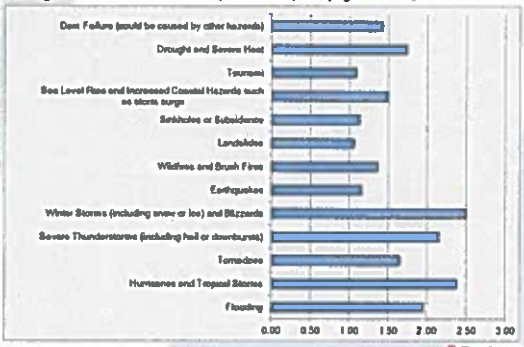
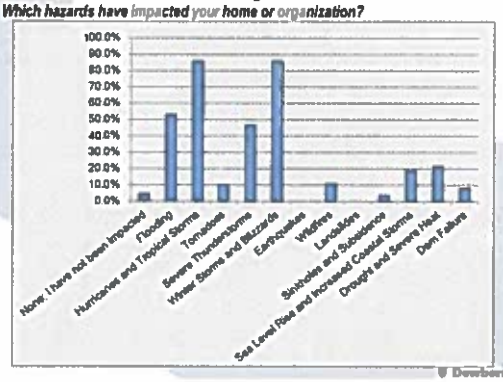
Public Outreach Survey

Rating the threats on a scale of 1 (no concern) to 3 (high concern)



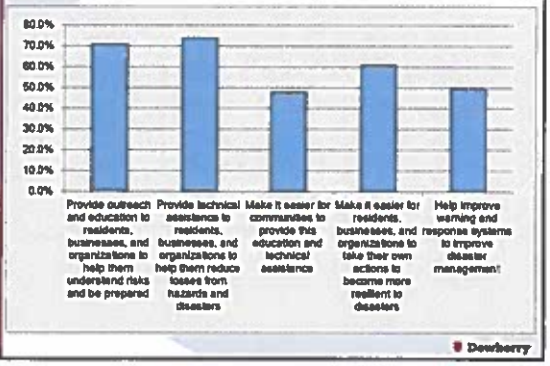
Public Outreach Survey

Which hazards have impacted your home or organization?



Public Outreach Survey

What can the State do to increase resilience and help communities be prepared?



Public Outreach Survey

Summary of written responses and comments

- Stop development in flood risk areas, prevent rebuilding after flood damage, acquire homes, do not subsidize flood insurance, and retreat from the shoreline
- Bury power lines, trim trees, make the utilities respond faster, create microgrids, and generally prevent the outages that have been occurring
- Harden and protect other infrastructure (water, wastewater, roads)
- Improve warning systems, communication, etc.
- Foster individual and family preparedness, people working together, etc.

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Hazard Identification & Risk Assessment

- Purpose: Provides a factual basis for prioritizing hazard mitigation activities
- Major components:
  - Identify and profile natural hazards affecting the state
  - Describe vulnerability to jurisdictions (cities and counties), and estimate losses
  - Describe vulnerability to state owned/operated facilities and critical facilities, and estimate losses
  - Incorporate findings of local and regional plans

Dewberry

State Plan Update Requirements

- Must be updated every 3 years (may change to 5 years soon)
- Re-assess Hazard Identification and Risk Assessment (HIRA)
  - Consider changes to hazards and vulnerability of people and assets
  - Address hazard events that have occurred since the last plan
- Incorporate Regional planning efforts with CT State Plan
- Report on progress with mitigation strategy to-date and discuss adjustments
- Address weaknesses identified in previous plan review

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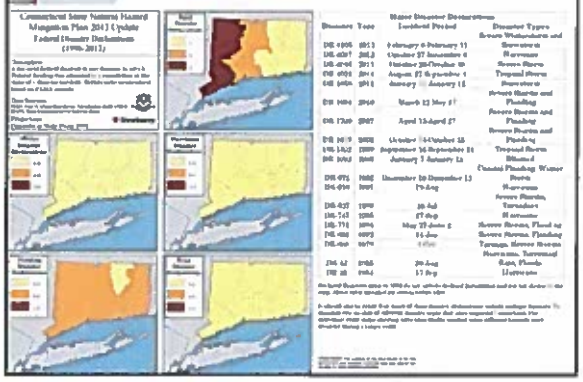
Federally Declared Disasters

Disaster - Year	Incident Period	Disaster Type	Counties
DR-4218	2015	January 26-January 29	Severe winter storm and snow storm	New London, Tolland, Windham
DR-4136	2014	February 6-February 11	Severe winter storm and snow storm	All
DR-4087	2013	October 27-November 8	Hurricane	Litchfield, Fairfield, New Haven, Middlesex, New London, Windham, Tolland
DR-4044	2011	October 29-October 30	Severe Storm	Litchfield, Fairfield, New Haven, Middlesex, Windham, Tolland, Hartford
DR-4015	2011	August 27-September 1	Tropical Storm	All
DR-1958	2011	January 11-January 12	Snowstorm	Fairfield, Hartford, Litchfield, New Haven, New London, Tolland
DR-1909	2010	March 31-May 17	Severe Storms and Flooding	Fairfield, Middlesex New London
DR-1701	2007	April 15-April 27	Severe Storms and Flooding	Fairfield, Hartford, Litchfield, Middlesex, New London, New Haven, Windham
DR-1619	2005	October 18-October 19	Severe Storms and Flooding	Litchfield, New London, Tolland, Windham
DR-1302	1999	September 16-September 21	Tropical Storm	Fairfield, Hartford, Litchfield
DR-1252	1998	January 7-January 13	Blizzard	Not listed
DR-971	1992	December 10-December 15	Coastal Flooding, Winter Storm	Not listed
DR-916	1991	19-Aug	Hurricane	Not listed
DR-837	1989	10-Jul	Severe Storms, Tornadoes	Not listed
DR-767	1985	27-Sep	Hurricane	Not listed
DR-731	1984	May 27-June 2	Severe Storms, Flooding	Not listed
DR-663	1982	16-Jun	Severe Storms, Flooding	Not listed
DR-538	1979	4-Oct	Tornado, Severe Storms	Not listed
3113	1953	30-Aug	Hurricane, Torrential Rain, Floods	Not listed
DR-25	1954	11-Sep	Hurricane	Not listed

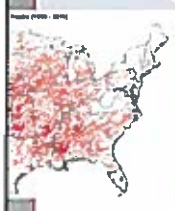
Total Declared Disasters



NCEI Storm Events Database

- 1,951 events
  - 1950* - 2017
- Summarized by County

Event Category	Number of Events
Drought	59
Flood	347
Hurricanes	4
Thunderstorm	1044
Tornado	92
Wildfire	1
Winter	404
Grand Total	1951



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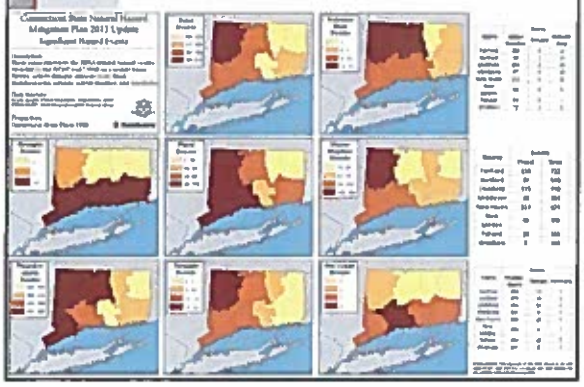
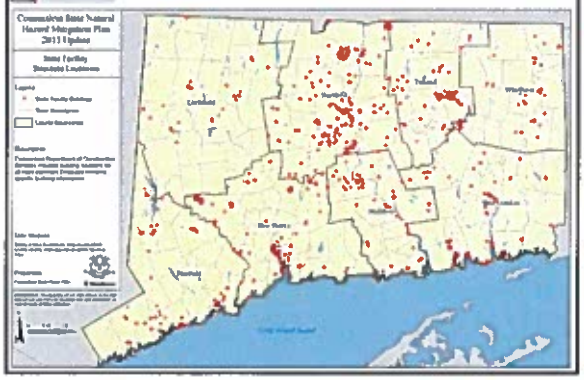
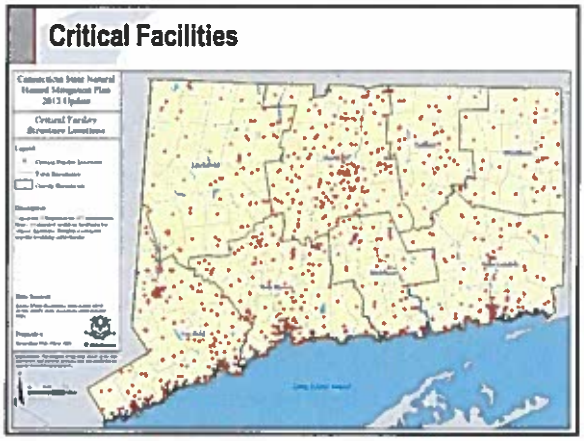
NCEI Total Events



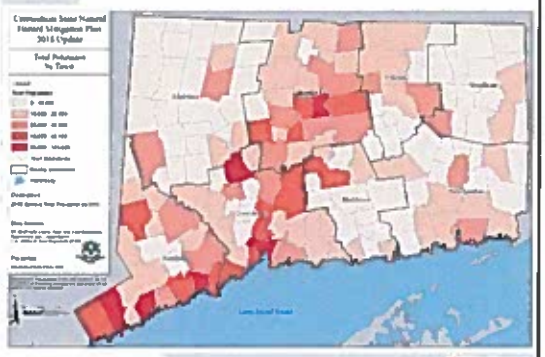
State Facilities



Critical Facilities



2010 Population Distribution



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Land Cover

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Geology

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Slide 27

DS1 **Updated graphic**
Delmar, Sydney, 3/5/2018

Regional HMP Integration

- Vulnerability and risk assessment results
- Hazard rankings incorporated into State plan hazard rankings
- Mitigation Strategies & Actions

FEMA Guidance:

Assessing Vulnerability by Jurisdiction

A. Does the new or updated plan describe the State's vulnerability based on estimates provided in local risk assessments as well as the State risk assessment?

C. Does the updated plan explain the process used to analyze the information from the local risk assessments, as necessary?

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Results from Local Plan Reviews

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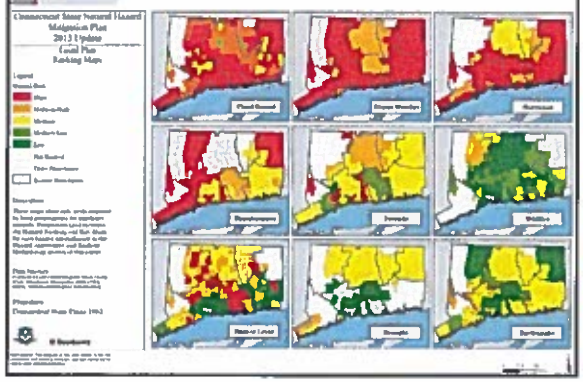
Local Plan Hazard Rankings



2013 Update

HAZARD VULNERABILITIES AND COMPOSITE RANKING MAPS

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2013 Ranking Parameters

- **"Semi-Quantitative" Scoring System**
  - Actual Data Values grouped in categories 1-4 based on statistics
- **Data with normalization (inflation ...)**
  - Limitations with probability & impact data
- **Parameters Used:**
  - Population Vulnerability and 2025 Population Projections (weight 0.5)
  - Building Permits Count (weight 0.5)
  - Annualized Events (weight 1)
  - Deaths & Injuries (weight 1)
  - Annualized Property Damage (weight 1)
  - Local Plan Hazard Rankings (weight 1)
  - Geographic Extent of Hazard (weight 1.5)

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Thunderstorm History

- 1,044 thunderstorm events from 1955 to 2018
- More than $143,928,000 in adjusted damages statewide
- At least 108 fatalities
- More than 312 reported injuries
- Average of 16.8 events per year
- Annualized losses of $2,320,935

Dewberry

THUNDERSTORM RANKING MAP

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Hurricane History

- 18 hurricane events from 1950 to 2018
- More than $65 million dollars in adjusted damages statewide
- Annualized losses of $3 million

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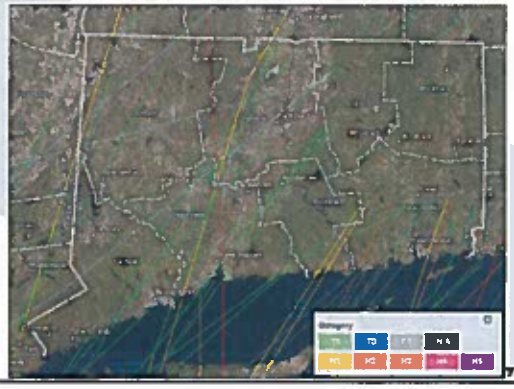
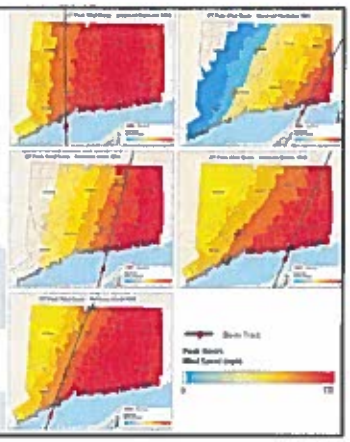
Historical hurricane tracts, 1956 to 2016



Historical hurricane tracts and peak wind gusts



Wind Risk

Historical Occurrence Information (NCDC)

County	Number of Events	Property Damages
Fairfield	436	$11,980,636
Hartford	477	$8,886,740
Litchfield	484	$3,878,007
Middlesex	147	$1,711,448
New Haven	360	$4,888,964
New London	198	$2,218,563
Tolland	204	$3,275,674
Windham	184	$2,727,504
Total	2,470	$39,288,379

Annualized Loss Estimates

County	Annualized Events	Total Annualized Damages
Fairfield	7.93	$ 196,367
Hartford	8.67	$118,787
Litchfield	8.80	$48,155
Middlesex	2.67	$29,508
New Haven	6.55	$81,017
New London	3.60	$38,251
Tolland	3.71	$59,581
Windham	3.35	$47,028
Total	45.30	$634,882

Dewberry

Tropical Cyclone/Hurricane Risk

Historical Occurrence Information (NCEI)

County	Number of Events	Property Damages
Fairfield	0	$0.00
Hartford	1	$71,956,947.00
Litchfield	0	$0.00
Middlesex	0	$0.00
New Haven	0	$0.00
New London	0	$0.00
Tolland	1	$71,956,947.00
Windham	1	$71,956,947.00
Total	18	$143,913,894.00

Annualized Loss Estimates

County	Annualized Events	Annualized Damages
Fairfield County	0.14	$415.10
Hartford County	0.05	$993,497.65
Litchfield County	0.09	$0.00
Middlesex County	0.14	$415.10
New Haven County	0.19	$415.10
New London County	0.14	$415.10
Tolland County	0.05	$993,497.65
Windham County	0.05	$993,497.65
County Total	*	$1,986,653.85

Dewberry

Hazus: Critical Facility Exposure 100-year Severe Damage State

County	> 0% Chance	Between 1% and 0.2%	Between 2% and 1%	Between 1% and 0.2%	< 1% Chance	Total
Fairfield	0	0	0	0	577	577
Hartford	0	0	0	2	572	577
Litchfield	0	0	0	0	211	211
Middlesex	0	0	0	2	143	145
New Haven	0	0	0	1	546	547
New London	3	0	8	90	150	247
Tolland	0	0	0	2	124	126
Windham	0	0	0	0	124	124
Total	84	514	471	469	875	2504

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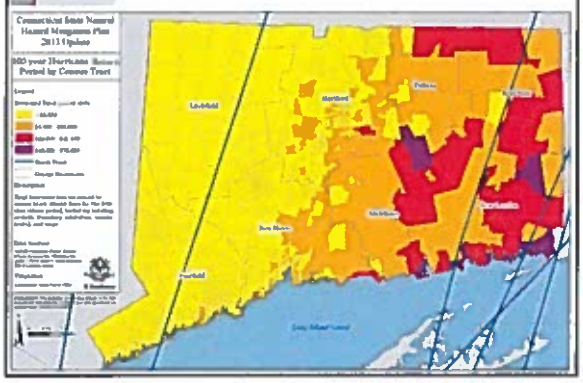
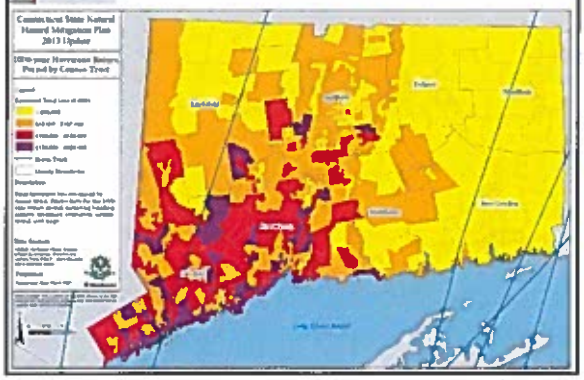
Hazus: 100 year event Economic Loss



Hazus: 1,000 year event Economic Loss



TROPICAL CYCLONE RANKING MAP

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Tornado History

- 92 tornado events from 1950 to 2018
- More than $600 million dollars in adjusted property damages statewide
- More than 700 reported injuries
- Annualized damages of $9 million

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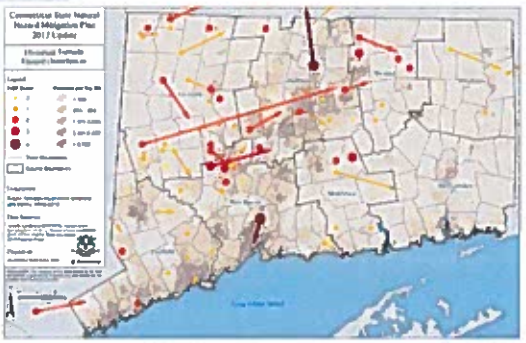
Tornado Touchdowns and Paths



Dewberry

Tornado Risk

Historical Occurrence Information (NCEI)

County	Number of Events	Number of Injuries	Number of Deaths	Property Damages
Fairfield	15	13	0	$3,480,000
Hartford	18	970	1	$36,670,000
Litchfield	27	36	0	$5,161,000
Middlesex	8	2	0	$257,785
New Haven	18	137	1	$279,885,000
New London	2	0	0	$0
Tolland	11	4	0	$407,750
Windham	5	0	0	$1,500,000
Total	*	700	0	$400,351,535

Annualized Loss Estimates

County	Annualized Events	Annualized Damages
Fairfield	0.22	$81,940.80
Hartford	0.27	$1,908,322.99
Litchfield	0.40	$768,597.01
Middlesex	0.12	$3,847.48
New Haven	0.24	$4,177,089.55
New London	0.03	$0.00
Tolland	0.16	$6,085.82
Windham	0.04	$87,813.41
Total	*	$6,973,995.96

Dewberry

TORNADO RANKING MAP

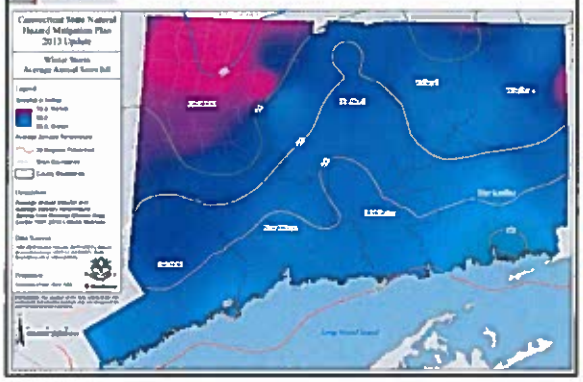
Dewberry

Winter Storm History

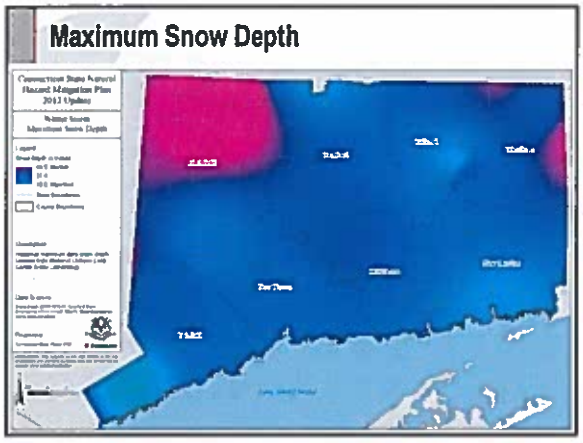
- 1,091 winter storm events from January 1996 to July 31, 2017
- More than $47 million in adjusted damages statewide
- At least 12 fatalities
- More than 53 reported injuries
- Average of 4.75 events per year
- Annualized losses of $2 million

Dewberry

Average Annual Snowfall



Maximum Snow Depth



Winter Storm Risk

Historical Occurrence Information (NCDC)

County	Number of Events	Property Damages
Fairfield	133	$0
Hartford	80	$19,085,273
Litchfield	180	$1,943,023
Middlesex	87	$0
New Haven	112	$125,545
New London	81	$0
Tolland	86	$10,642,615
Windham	77	$8,648,871
Total	815	$40,418,270

Annualized Loss Estimates

County	Annualized Events	Annualized Property Damages	Total Annualized Damages
Fairfield	6.65	$0	$0
Hartford	4.00	$953,764	$953,764
Litchfield	9.00	$97,151	$97,151
Middlesex	4.35	$0	$0
New Haven	5.60	$6,277	$6,277
New London	4.15	$0	$0
Tolland	4.30	$532,181	$532,181
Windham	3.85	$432,641	$432,641
Total	40.75	$2,020,764	$2,020,764

Dewberry

State-Owned Buildings Exposure

Exposure (Numbers)

County	# State-Owned Buildings	Buildings with Snow Depth 24-29"	Percent with Snow Depth 24-29"	Buildings with Snow Depth 30-35"	Percent with Snow Depth 30-35"	Buildings with Snow Depth >=36"	Percent with Snow Depth >=36"	Total Buildings At Risk	Total Percent At Risk
Hartford	205	139	67.8%	11	5.4%	0	0.0%	150	73.2%
Hartford	871	606	69.5%	31	3.6%	0	0.0%	637	73.1%
Litchfield	97	3	3.1%	26	26.8%	68	70.1%	97	100.0%
Middlesex	209	184	88.0%	0	0.0%	0	0.0%	184	88.0%
New Haven	556	411	73.9%	0	0.0%	0	0.0%	411	73.9%
New London	68	48	0.0%	0	0.0%	0	0.0%	48	0.0%
Tolland	539	78	14.4%	5	0.9%	0	0.0%	83	15.3%
Windham	191	91	47.6%	102	52.4%	0	0.0%	193	100.0%
Total	3,217	1,960	60.9%	181	4.9%	68	2.0%	1,991	84.9%

Exposure (Values)

County	# State-Owned Buildings	Buildings with Snow Depth 24-29"	Percent with Snow Depth 24-29"	Buildings with Snow Depth 30-35"	Percent with Snow Depth 30-35"	Buildings with Snow Depth >=36"	Percent with Snow Depth >=36"	Total Value At Risk	Total Percent Value At Risk
Hartford	N/A	N/A	N/A	N/A	N/A	$0.00	0.0%	N/A	N/A
Hartford	N/A	N/A	N/A	N/A	N/A	$0.00	0.0%	N/A	N/A
Litchfield	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Middlesex	N/A	N/A	N/A	$0.00	0.0%	$0.00	0.0%	N/A	N/A
New Haven	N/A	N/A	N/A	$0.00	0.0%	$0.00	0.0%	N/A	N/A
New London	$22,057,764	$5,350,946	23.7%	$0.00	0.0%	$0.00	0.0%	$0.00	0.0%
Tolland	$1,806,813,369	$41,869,813	2.3%	$0.00	0.0%	$0.00	0.0%	$0.00	0.0%
Windham	$29,398,853	$4,577,433	15.6%	$24,781,42 1	84.4%	$0.00	0.0%	$29,358,85 4	100.0%
Total	$1,861,434,986	$51,277,886	2.8%	$24,781,42 1	1.3%	$0.00	0.0%	$29,358,85 4	1.6%

Dewberry

Population Exposure

County	Total Population	Pop with Snow Depth 24-29"	Percent with Snow Depth 24-29"	Pop with Snow Depth 30-35"	Percent with Snow Depth 30-35"	Pop with Snow Depth >=36"	Percent with Snow Depth >=36"	Total Population At Risk	Total Percent At Risk
Hartford	915,878	921,875	96.0%	19,588	2.1%	488	0.1%	941,891	98.1%
Hartford	894,014	542,974	60.7%	53,963	6.0%	871	0.0%	597,807	66.8%
Litchfield	189,927	90,937	36.0%	16,312	8.6%	81,765	43.0%	189,994	78.6%
Middlesex	165,676	77,701	46.9%	0	0.0%	0	0.0%	77,701	46.9%
New Haven	862,477	780,160	90.5%	0	0.0%	0	0.0%	780,160	90.5%
New London	274,099	64,061	23.4%	10	0.0%	0	0.0%	64,071	23.4%
Tolland	151,971	85,081	55.7%	2,891	1.9%	4	0.0%	87,976	57.6%
Windham	118,418	42,141	35.6%	57,225	46.3%	6,082	9.3%	105,448	89.0%
Total	3,574,377	3,104,880	86.8%	146,792	4.2%	88,963	2.5%	3,488,666	97.2%

Dewberry

Critical Facilities Exposure

County	All Critical Facilities	Facilities with Snow Depth 24-29"	Percent with Snow Depth 24-29"	Facilities with Snow Depth 30-35"	Percent with Snow Depth 30-35"	Facilities with Snow Depth >=36"	Percent with Snow Depth >=36"	Total Facilities At Risk	Total Percent At Risk
Hartford	284	274	96.5%	17	5.6%	0	0.0%	291	93.0%
Hartford	280	220	78.6%	27	9.6%	0	0.0%	247	88.2%
Litchfield	113	27	23.8%	11	15.5%	52	46.0%	100	88.5%
Middlesex	76	67	88.8%	0	0.0%	0	0.0%	92	88.8%
New Haven	258	244	94.6%	0	0.0%	0	0.0%	244	94.6%
New London	193	43	22.3%	0	0.0%	0	0.0%	43	22.3%
Tolland	85	40	47.1%	5	5.9%	0	0.0%	45	52.9%
Windham	90	26	28.9%	59	65.6%	4	4.4%	88	97.8%
Total	1,481	960	81.8%	119	8.1%	56	4.0%	1,080	94.0%

Dewberry

WINTERSTORM RANKING MAP

Dewberry

Flood History

- 593 flood events from 1993 to 2012
- More than $55.9 million in adjusted damages statewide
- At least 10 fatalities
- More than 3 reported injuries
- Average of 29.65 events per year
- Annualized losses of $2.7 million

Dewberry

Flood Risk

Historical Occurrence Information (NCDC)

County	Number of Events	Property Damage
Fairfield	115	$16,237,548
Hartford	69	$10,402,823
Litchfield	115	$11,807,373
Middlesex	42	$592,103
New Haven	114	$3,073,295
New London	66	$7,014,097
Tolland	15	$5,116,567
Windham	9	$1,063,360
Total	593	$55,905,181

Annualized Loss Estimates

County	Annualized Events	Total Annualized Damages
Fairfield	1.7%	$850,877
Hartford	4.9%	$520,141
Litchfield	0.7%	$180,909
Middlesex	2.1%	$29,605
New Haven	1.7%	$153,665
New London	4.9%	$350,705
Tolland	0.7%	$255,828
Windham	0.4%	$53,168
Total	29.6%	$2,795,250

Dewberry

State-Owned Buildings Exposure

Exposure (Numbers)

County	All State-Owned Buildings	Buildings Intersecting High Hazard Dam Inundation	Percent Intersecting High Hazard Dam Inundation	Buildings Intersecting Significant Hazard Dam Inundation	Percent Intersecting Significant Hazard Dam Inundation	Total Buildings At Risk	Total Percent At Risk
Fairfield	309						
Hartford	972						
Litchfield	97						
Middlesex	109						
New Haven	594						
New London	488						
Tolland	429						
Windham	199						
Total	3,817						

Critical Facilities Exposure

County / Planning Area	All Critical Facilities	Facilities Intersecting High Hazard Dam Inundation	Percent Intersecting High Hazard Dam Inundation	Facilities Intersecting Significant Hazard Dam Inundation	Percent Intersecting Significant Hazard Dam Inundation	Total Facilities At Risk	Total Percent At Risk
Fairfield	194						
Hartford	280						
Litchfield	113						
Middlesex	95						
New Haven	259						
New London	185						
Tolland	93						
Windham	90						
Total	1,309						

Dewberry

Hazus: 100-year Economic Loss & FEMA AAL (thousands of dollars)

County	Building	Contents	Inventory	Relocation	Income	Rental	Wage	Total	Total 100-year Loss	Annualized Loss (AAL Study)
Fairfield	1,873,141	1,185,893	65,146	2,316	5,981	1,099	2,462	30,857	3,960,279	$241,000
Hartford	936,485	1,009,993	37,196	872	2,209	840	1,817	11,374	1,987,695	$121,571
Litchfield	488,874	584,887	24,875	451	1,109	352	1,791	7,793	1,112,293	$61,585
Middlesex	395,124	405,942	15,446	709	1,093	267	2,154	5,584	1,383,875	$42,848
New Haven	1,148,329	1,451,815	44,191	1,523	3,981	606	4,759	14,100	2,695,195	$75,252
New London	548,457	696,998	17,795	818	1,122	216	2,910	5,814	1,264,788	$27,278
Tolland	326,511	391,201	11,049	79	378	83	751	1,583	921,360	$22,868
Windham	307,761	289,617	11,306	138	267	48	1,485	2,136	613,198	$20,615
Grand Total	6,313,383	7,311,218	277,481	8,899	16,961	3,721	19,844	98,391	15,996,481	$795,794

Dewberry

Hazus: Critical Facility Exposure 100-year Flood

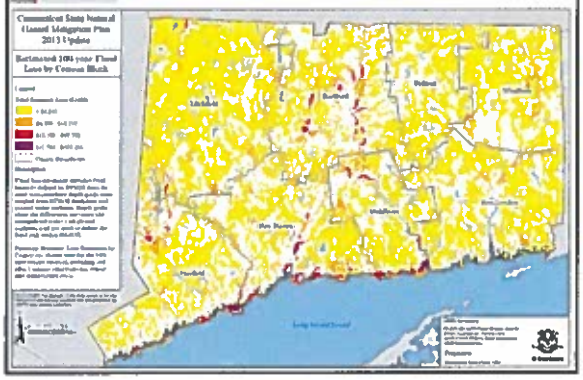
COUNTY	School	Fire Station	Police Station	Emergency Operation Center	Medical Care Facility	Totals
Fairfield	12	8	9	0	9	38
Hartford	4	11	1	0	0	6
Litchfield	9	6	2	0	1	20
Middlesex	3	2	0	0	1	6
New Haven	9	9	1	0	0	19
New London	14	14	0	1	0	32
Tolland	3	1	1	0	0	5
Windham	3	3	0	0	0	6
Totals	57	54	14	1	11	

Hazus: Critical Facility Exposure Hurricane Sandy Surge

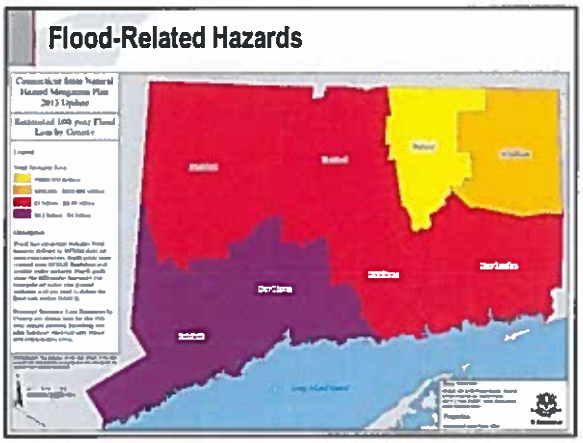
Fairfield	0	0	0	N/A	N/A	0
Hartford	N/A	N/A	N/A	N/A	N/A	0
Litchfield	N/A	N/A	N/A	N/A	N/A	0
Middlesex	0	0	0	N/A	N/A	0
New Haven	0	1	0	N/A	N/A	1
New London	0	1	1	N/A	N/A	2
Tolland	N/A	N/A	N/A	N/A	N/A	0
Windham	N/A	N/A	N/A	N/A	N/A	0
Totals	0	2	1	0	0	3

Dewberry

Hazus 100-yr Flood Loss by Census Block



Flood-Related Hazards

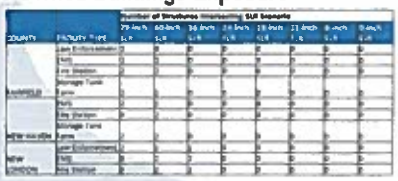


FLOOD RANKING MAP

Dewberry

Sea Level Rise

State-Owned Buildings Exposure



Critical Facilities Exposure

Dewberry

Dam Failure Overview

- 3,958 state-regulated dams
- 266 high hazard dams
- 445 significant dams
- 276 state-owned dams
- Breakdown by county:

Dewberry

Dam Failure History

- 38 incidents since 1877, according to NPDP database
- 25 of these are attributed to the 1982 flood event
- Known consequences
  - 6 deaths
  - 3 injuries
  - $64,144,116 in property damages (adjusted dollars)
  - $475,141 in annualized damages (adjusted dollars)
- Gaps in historical data (1938, 1955, 2005, etc.)

Dewberry

Dam Locations and Mapped Inundation Areas

Dam Failure Risk

County	Number of Events	Number of Injuries	Number of Deaths	Property Damages (In Adjusted Dollars)	Crop Damages (In Adjusted Dollars)	Annualized Damages (In Adjusted Dollars)
Fairfield	2	0	0	$0	$0	$0
Hartford	2	0	0	$870	$0	$6
Litchfield	1	0	0	$0	$0	$0
Middlesex	14	1	0	$7,758,996	$0	$51,770
New Haven	1	0	0	$4,885,865	$0	$34,709
New London	7	0	0	$44,997,308	$0	$328,868
Tolland	5	0	0	$1,276,823	$0	$9,456
Windham	8	0	0	$8,325,057	$0	$48,336
Total	38	1	0	$68,144,118	$0	$479,141

Dewberry

State-Owned Buildings Exposure

Exposure (Numbers)

County	All State Owned Buildings	Buildings Intersecting High Hazard Dam Inundation	Percent Intersecting High Hazard Dam Inundation	Buildings Intersecting Significant Hazard Dam Inundation	Percent Intersecting Significant Hazard Dam Inundation	Total Buildings At Risk	Total Percent At Risk
Fairfield	205	44	21.5%	2	1.0%	46	22.4%
Hartford	973	1	0.1%	0	0.0%	1	0.1%
Litchfield	97	14	14.4%	0	0.0%	14	14.4%
Middlesex	109	1	0.9%	0	0.0%	1	0.9%
New Haven	514	6	1.1%	0	0.0%	6	1.1%
New London	469	0	0.0%	0	0.0%	0	0.0%
Tolland	178	0	0.0%	0	0.0%	0	0.0%
Windham	191	0	0.0%	0	0.0%	0	0.0%
Total	2,217	66	3.0%	2	0.1%	68	3.0%

Exposure (Values)

County	All State Owned Buildings	Buildings Intersecting High Hazard Dam Inundation	Percent Intersecting High Hazard Dam Inundation	Buildings Intersecting Significant Hazard Dam Inundation	Percent Intersecting Significant Hazard Dam Inundation	Total Value At Risk	Total Percent Value At Risk
Fairfield	$0.00	$0.00	0.0%	$0.00	0.0%	$0.00	0.0%
Hartford	$0.00	$0.00	0.0%	$0.00	0.0%	$0.00	0.0%
Litchfield	$0.00	$0.00	0.0%	$0.00	0.0%	$0.00	0.0%
Middlesex	$0.00	$0.00	0.0%	$0.00	0.0%	$0.00	0.0%
New Haven	$0.00	$0.00	0.0%	$0.00	0.0%	$0.00	0.0%
New London	$72,097,700	$0.00	0.0%	$0.00	0.0%	$0.00	0.0%
Tolland	$1,066,093,500	$0.00	0.0%	$0.00	0.0%	$0.00	0.0%
Windham	$15,270,000	$0.00	0.0%	$0.00	0.0%	$0.00	0.0%
Total	$1,153,461,200	$0.00	0.0%	$0.00	0.0%	$0.00	0.0%

Dewberry

Population Exposure

County	Total Population	Population Intersecting High Hazard Dam Inundation	Percent Intersecting High Hazard Dam Inundation	Population Intersecting Significant Hazard Dam Inundation	Percent Intersecting Significant Hazard Dam Inundation	Total Population At Risk	Total Percent At Risk
Fairfield	916,829	16,984	1.9%	1,081	0.1%	18,065	2.0%
Hartford	894,014	13,948	1.6%	0	0.0%	13,948	1.6%
Litchfield	189,927	11,477	6.0%	130	0.1%	11,607	6.1%
Middlesex	165,676	3,612	2.2%	0	0.0%	3,612	2.2%
New Haven	862,477	63,479	7.4%	1,092	0.1%	64,571	7.4%
New London	274,055	3,187	0.9%	2,364	0.8%	5,551	1.7%
Tolland	152,691	3,585	2.3%	965	0.4%	4,550	2.7%
Windham	118,428	914	0.8%	0	0.0%	914	0.8%
Total	3,574,097	117,386	4.9%	5,388	0.1%	122,774	3.0%

Critical Facilities Exposure

County/Municipality Type	# Critical Facilities	Facilities Intersecting High Hazard Dam Inundation	Percent Intersecting High Hazard Dam Inundation	Facilities Intersecting Significant Hazard Dam Inundation	Percent Intersecting Significant Hazard Dam Inundation	Total Facilities At Risk	Total Percent At Risk
Fairfield	200	12	6.0%	2	1.0%	12	6.0%
Hartford	200	2	1.0%	0	0.0%	2	1.0%
Litchfield	113	9	8.0%	0	0.0%	9	8.0%
Middlesex	94	2	2.1%	0	0.0%	2	2.1%
New Haven	258	20	7.8%	0	0.0%	20	7.8%
New London	195	11	5.6%	0	0.0%	11	5.6%
Tolland	93	4	4.3%	0	0.0%	4	4.3%
Windham	90	1	1.1%	0	0.0%	1	1.1%
Total	1,043	61	5.8%	2	0.1%	63	6.0%

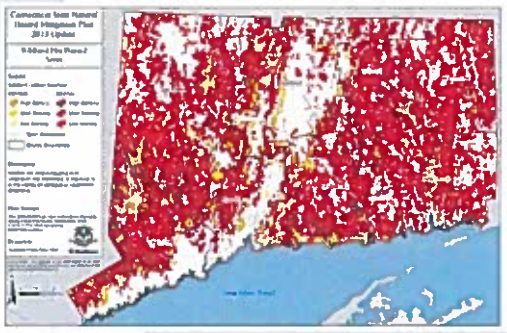
Dewberry

Wildland Fire History

- 545 wildland fire events from 2013 to 2017
- Approximately 1,487 acres burned statewide
- Average fire size: 2.7 acres
- Estimated 1,300 acres burn each year (<1% total forested area)

Dewberry

Wildland Fire Hazard Areas



Dewberry

Wildland Fire Events

County	Number of Events	Total Acres Burned	Average Fire Size	Primary Cause	Second Leading Cause
Fairfield	609	1,148.19	1.42	Incendiary	Unknown [** Complete **
Hartford	857	1,491.83	4.73	Unknown	Incendiary
Litchfield	1,409	2,360.95	1.73	Unknown	Debris Burning
Middlesex	469	1,311.95	2.87	Unknown	Debris Burning
New Haven	1,371	3066.44	2.00	Unknown	Incendiary
New London	459	819.05	1.81	Unknown	Debris Burning
Tolland	987	992.83	1.13	Unknown	Debris Burning
Windham	544	1,161.15	2.08	Unknown	Incendiary
Total	6,455	12,185.11	2.55		

Dewberry

State-Owned Buildings Exposure

Exposure (Numbers)

County	All State Owned Buildings	Building Intersecting Interface	Percent Intersecting Interface	Building Intersecting Interface	Percent Intersecting Interface	Total Buildings At Risk	Total Percent At Risk
Fairfield	209	43	20.5%	15	7.2%	57	27.3%
Hartford	873	84	9.6%	34	3.9%	118	13.5%
Litchfield	97	9	9.3%	12	12.4%	21	21.7%
Middlesex	209	96	45.9%	23	11.0%	119	56.9%
New Haven	956	131	13.7%	73	7.6%	204	21.3%
New London	488	79	16.2%	28	5.7%	107	21.9%
Tolland	570	104	18.2%	159	27.9%	263	46.1%
Windham	193	51	26.4%	48	24.9%	140	72.5%
Total	3,527	561	15.9%	399	11.3%	1,029	29.2%

Exposure (Values)

County	All State Owned Buildings	Building Intersecting Interface	Percent Intersecting Interface	Building Intersecting Interface	Percent Intersecting Interface	Total Value At Risk	Total Percent Value At Risk
Fairfield	$0	$0	0.0%	$0	0.0%	$0	0.0%
Hartford	$0	$0	0.0%	$0	0.0%	$0	0.0%
Litchfield	$0	$0	0.0%	$0	0.0%	$0	0.0%
Middlesex	$0	$0	0.0%	$0	0.0%	$0	0.0%
New Haven	$0	$0	0.0%	$0	0.0%	$0	0.0%
New London	$22,017,756	$3,479,811	15.8%	$1,407,394	6.4%	$4,887,206	22.2%
Tolland	$1,004,011,960	$22,038,845	2.2%	$612,990,284	61.1%	$635,029,129	63.3%
Windham	$39,255,914	$3,960,780	9.9%	$35,990,071	91.7%	$39,951,034	101.8%
Total	$1,065,285,630	$29,479,436	2.7%	$650,387,749	60.9%	$679,867,185	63.8%

Dewberry

Population Exposure

County	Total Population	Population Intersecting Interface	Percent Intersecting Interface	Population Intersecting Interface	Percent Intersecting Interface	Total Population At Risk	Total Percent At Risk
Fairfield	916,829	191,421	21.0%	115,456	12.6%	307,871	33.6%
Hartford	894,014	135,160	15.1%	179,281	20.1%	314,441	35.2%
Litchfield	189,927	96,282	50.7%	57,063	30.1%	153,345	80.8%
Middlesex	163,675	71,671	43.8%	36,179	22.0%	107,850	65.9%
New Haven	861,077	176,573	20.5%	228,514	26.5%	405,087	47.0%
New London	274,055	119,349	43.5%	53,478	19.5%	172,827	63.0%
Tolland	152,691	78,751	51.6%	36,808	24.1%	115,560	75.7%
Windham	118,430	52,362	44.2%	33,397	28.2%	85,759	72.4%
Total	3,570,699	921,570	25.8%	734,086	20.6%	1,655,656	46.4%

Critical Facilities Exposure

County	All Critical Facilities	Facilities Intersecting Interface	Percent Intersecting Interface	Facilities Intersecting Interface	Percent Intersecting Interface	Total Facilities At Risk	Total Percent At Risk
Fairfield	294	87	29.6%	89	30.3%	176	59.9%
Hartford	390	52	13.3%	81	20.7%	133	34.1%
Litchfield	217	80	36.9%	45	20.7%	125	57.6%
Middlesex	76	36	47.3%	19	25.0%	55	72.3%
New Haven	358	90	25.1%	95	26.5%	185	51.7%
New London	191	96	50.3%	57	29.8%	153	80.1%
Tolland	83	48	57.8%	19	22.9%	67	80.7%
Windham	205	54	26.3%	31	15.1%	85	41.5%
Total	1,814	543	29.9%	436	24.0%	979	54.0%

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WILDFIRE RANKING MAP

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Drought History and Risk

- 59 distinct drought events from 1993 to 2018 (NCEI)
- No reported injuries, deaths, or property damage

County	Number of Events	USDA Annualized Insured Crop Losses
Fairfield	5	$26,802.88
Hartford	2	$31,836,877.05
Litchfield	6	$3,051,123.30
Middlesex	6	$1,894.88
New Haven	6	$968,108.81
New London	3	$348,887.48
Tolland	3	$11,858,854.34
Windham	3	$6,908,829.48

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Average Annual Precipitation

DROUGHT RANKING MAP

Dewberry

Earthquake History

- Notable Events felt in Connecticut:
  - August 23, 2011: 5.8 magnitude (Richmond, VA)
  - November 30, 2010: 3.9 magnitude (117 mi SE Bridgeport)
  - June 23, 2010: 5.0 magnitude (Ontario-Quebec)
  - March 11, 2008: 2.0 magnitude (3 mi NW Chester)
- Hazus Analysis
  - 2010 Census Information Imported
  - 4 Probabilistic Scenarios
    - East Haddam 6.4 magnitude
    - Haddam 5.7 magnitude
    - Portland 5.7 magnitude
    - Stamford 5.7 magnitude

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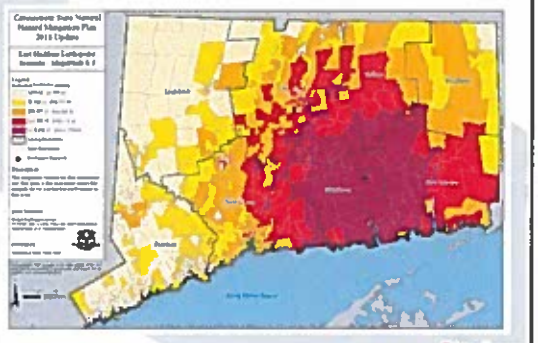
Earthquake Epicenters

Hazus: East Haddam



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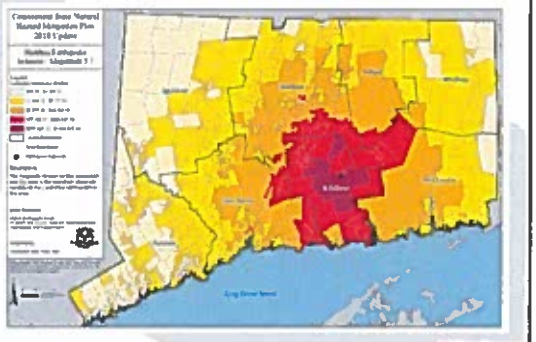
Hazus: Haddam



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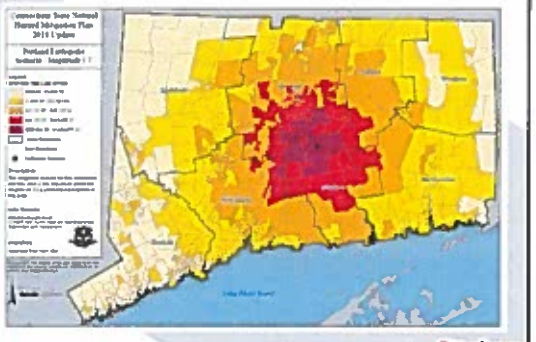
Hazus: Portland



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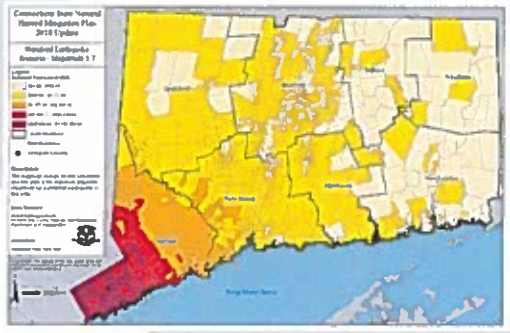
Hazus: Stamford



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Hazus: Critical Facility Exposure

Portland 1.7 MM

Damage State Probability of Extensive Damage (Number of EF Structures)

COUNTY	Over 40% Chance	Between 30% and 39.9%	Between 20% and 29.9%	Between 10% and 19.9%	Less Than 10% Chance	Totals
Fairfield	0	0	0	0	927	927
Hartford	23	191	144	113	147	677
Litchfield	0	0	0	0	211	211
Middlesex	0	91	0	10	91	149
New Haven	0	90	330	90	457	947
New London	0	0	0	0	215	147
Tolland	0	0	0	30	91	120
Windham	0	0	0	0	124	124
Totals	51	339	175	239	1864	

Stamford 0.7 MM

Damage State Probability of Extensive Damage (Number of EF Structures)

COUNTY	Over 40% Chance	Between 30% and 39.9%	Between 20% and 29.9%	Between 10% and 19.9%	Less Than 10% Chance	Totals
Fairfield	0	153	90	90	264	827
Hartford	0	0	0	0	977	977
Litchfield	0	0	0	0	211	211
Middlesex	0	0	0	0	149	149
New Haven	0	0	0	0	947	947
New London	0	0	0	0	247	247
Tolland	0	0	0	0	136	136
Windham	0	0	0	0	124	124
Totals	0	153	90	90	3239	

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Hazus: Critical Facility Exposure

East Haddam 0.6 MM

Damage State Probability of Extensive Damage (Number of EF Structures)

COUNTY	Over 40% Chance	Between 30% and 39.9%	Between 20% and 29.9%	Between 10% and 19.9%	Less Than 10% Chance	Totals
Fairfield	0	0	0	0	927	927
Hartford	0	172	71	134	44	977
Litchfield	0	0	0	0	207	211
Middlesex	40	71	20	14	0	145
New Haven	1	90	129	227	106	947
New London	91	148	46	20	0	247
Tolland	0	30	41	14	1	136
Windham	0	71	22	41	10	124
Totals	96	554	471	468	923	

Haddam 0.7 MM

Damage State Probability of Extensive Damage (Number of EF Structures)

COUNTY	Over 40% Chance	Between 30% and 39.9%	Between 20% and 29.9%	Between 10% and 19.9%	Less Than 10% Chance	Totals
Fairfield	0	0	0	0	927	927
Hartford	0	0	0	0	977	977
Litchfield	0	0	0	0	211	211
Middlesex	40	71	20	14	0	145
New Haven	1	90	129	227	106	947
New London	91	148	46	20	0	247
Tolland	0	30	41	14	1	136
Windham	0	71	22	41	10	124
Totals	96	554	471	468	923	

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EARTHQUAKE RANKING MAP

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Annualized Events

County	Drought	Flood	Hurricane	Thunderstorms	Tornado	Winter Weather	Grand Total
Fairfield	0.30	3.7%	0.1%	7.52	0.79	5.90	20.64
Hartford	0.0%	4.8%	0.0%	8.27	0.79	4.00	17.86
Litchfield	0.10	5.7%	0.10	8.98	0.48	6.00	22.82
Middlesex	0.30	3.10	0.1%	3.33	0.16	4.90	9.58
New Haven	0.30	3.70	0.3%	8.21	0.25	5.90	18.36
New London	0.30	4.80	0.1%	3.36	0.06	4.15	12.34
Tolland	0.0%	3.7%	0.0%	3.52	0.18	4.20	8.79
Windham	0.0%	3.40	0.0%	3.83	0.05	3.85	7.28
Statewide Total	1.40	39.66	0.90	43.84	2.79	46.75	117.07

Annualized Losses

County	Drought	Flood	Hurricane	Thunderstorms	Tornado	Winter Weather	Grand Total
Fairfield		$470,870	$0	$198,867	$186,042	$0	$3,137,560
Hartford		$930,141	$1,020,660	$118,787	$13,116,854	$451,744	$15,720,186
Litchfield		$480,969	$0	$58,199	$1,548,272	$67,151	$2,354,947
Middlesex		$29,805	$0	$29,508	$36,919	$0	$96,232
New Haven		$198,580	$0	$81,017	$8,454,867	$6,275	$8,740,779
New London		$350,995	$0	$38,351	$0	$0	$389,346
Tolland		$255,828	$1,020,660	$55,581	$44,971	$532,131	$1,908,681
Windham		$53,158	$1,020,660	$47,078	$84,462	$430,441	$1,636,007
Statewide Total		$2,769,356	$3,062,321	$624,643	$23,615,358	$2,026,764	$35,972,718

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Using HIRA Results to Inform Strategies

- Development & maintenance of spatial data for critical & state facilities
  - Ongoing Progress
  - Hazus CDMS
- Hazard Specific GIS data development (i.e. Dam Inundation areas)
- Continue to mitigate RL & SRL properties
- Climate Change & Sea Level Rise
  - Investigate properties within SLR scenarios

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Mitigation Action Plan: Brainstorming Results

- "Top" Mitigation Activity Ideas - Common Themes
  - Mitigation projects for existing at-risk structures
  - Regulations and building codes for new/improved structures
  - Mitigation funding
  - Utilities resiliency and hardening initiatives
  - Building community resiliency
  - Other
    - Debris management
    - Geology research projects
- See handout for details

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Mitigation Action Plan: Revision & Brainstorming

- **Chapter 5:** *Natural Hazard Mitigation Goals, Objectives, Strategies, and Activities for 2013-2016*
- 3 Goals / 3 Objectives / 13 Strategies
- No major changes to current Goals, which were adopted in 2007 and reaffirmed in 2010 and 2013
- Some minor clarifications made to Objectives and Strategies, along with some newly added Strategies

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2013 Mitigation Goals, Objectives, Strategies

- **Goal 1:** Promote implementation of sound floodplain management and other natural hazard mitigation principles on a state and local level
  - **Objective:** To increase general awareness of Connecticut's natural hazards and encourage State agencies, local communities, and the general public to be proactive in taking actions to reduce long-term risk to life and property.

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2013 Mitigation Goals, Objectives, Strategies

Strategies for Goal 1:

- **Strategy 1.1** – Provide technical guidance to communities on existing hazard mitigation opportunities with an emphasis on new or improved development or redevelopment, including local floodplain ordinance enhancement and enforcement.
- **Strategy 1.2** – Conduct public outreach and provide educational opportunities to State agencies, local communities, and other stakeholders on existing natural hazards and the mitigation measures available to reduce hazard risks.
- **Strategy 1.3** – Support and enhance State policy and legislative efforts to mitigate the effects of natural hazards and adapt to climate change.
- **Strategy 1.4** – Increase coordination and leverage resources across State agencies by integrating hazard mitigation principles into other relevant plans, policies, or program activities, such as the recent incorporation of hazard mitigation into the State Conservation and Development Policies Plan.

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2013 Mitigation Goals, Objectives, Strategies

- **Goal 2:** Support the implementation of effective natural hazard mitigation projects on a state and local level
  - **Objective:** To enhance the ability of State agencies and local communities to reduce or eliminate risks to life and property from natural hazards through cost-effective hazard mitigation projects.

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2013 Mitigation Goals, Objectives, Strategies

Strategies for Goal 2:

- **Strategy 2.1** – Develop State-level priorities and evaluation criteria for hazard mitigation project funding that is provided or administered by the State, including FEMA grant funds.
- **Strategy 2.2** – Identify, develop, and prioritize hazard mitigation projects for State-owned facilities considered at risk to natural hazards.
- **Strategy 2.3** – Provide the best available data, training, and technical assistance to State agencies and local communities to assist in the identification, development, and implementation of cost-effective hazard mitigation projects, particularly when applying for Federal and State funds.
- **Strategy 2.4** – Increase and promote the availability of various funding mechanisms to support hazard mitigation project implementation, including Federal, State, and non-governmental sources.
- **Strategy 2.5** – Routinely monitor the implementation of hazard mitigation projects, tracking progress through project closeout and beyond to capture success stories (losses avoided) and lessons learned.

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2013 Mitigation Goals, Objectives, Strategies

- **Goal 3:** Increase research and planning activities for the mitigation of natural hazards on a state and local level
  - **Objective:** To increase knowledge and enhance the capacity of State agencies and local communities to become more resilient to the effects of natural hazards, and to maintain the ability to adapt to climatic changes.

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2013 Mitigation Goals, Objectives, Strategies

Strategies for Goal 3:

- **Strategy 3.1** – Promote natural hazard mitigation research and planning activities that will improve hazard mitigation planning and implementation on a State and local level.
- **Strategy 3.2** – Conduct outreach and provide educational opportunities to state agencies, local communities, and other stakeholders to assist in translating research and planning activities into practice.
- **Strategy 3.3** – Investigate climate change adaptation strategies as they affect natural hazard mitigation and State investment policies, and link hazard mitigation activities with climate adaptation strategies when appropriate and possible.
- **Strategy 3.4** – Research methods and take action to better engage the private sector and non-profit organizations in hazard mitigation planning activities on a State and local level, including coordination with utility companies to better prepare for, mitigate against, and respond to natural hazard events.

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2010 Mitigation Activities Progress Report

- Updates required for all prior activities (Table 5-1)
  - Current Implementation Status:
    - Completed
    - Completed / To Be Continued
    - Partially Completed / In Progress
    - Deferred
    - Deleted
    - Ongoing / Continuous
    - Unknown
  - Narratives explaining status

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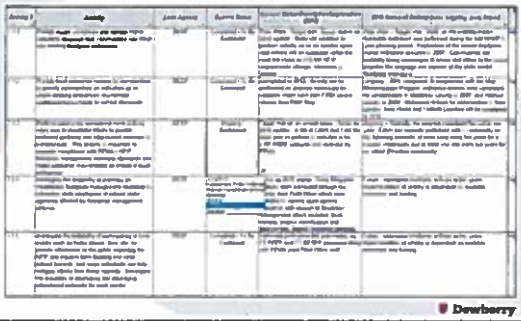
2010 Mitigation Activities Progress Report

- 2013 Mitigation Activities Update Spreadsheet



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2010 Mitigation Activities Progress Report

- Implementation status:
  - Completed: *5 activities*
  - Completed / To Be Continued: *8 activities*
  - Partially Completed / In Progress: *12 activities*
  - Deferred: *11 activities*
  - Deleted: *1 activity*
  - Ongoing / Continuous: *8 activities*
  - Unknown: *8 activities – most are incomplete, still require further evaluation, and may be deferred or deleted.*
- 47 activities may be carried over for implementation in 2013-2016, though further evaluation and streamlining is encouraged

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Identifying NEW Mitigation Activities

- Organize into same breakout groups as last meeting
- Identify specific mitigation activities to include for 2013-2016
- Activities should be:
  - **Strategic** – linked to HIRA findings and aligned with existing Goal-Objective-Strategy(s)
  - **Actionable** – specific enough to be implemented
  - **Achievable** – technically feasible, legal, affordable and cost-effective, and socially and politically acceptable
  - **Measurable** – progress can be evaluated over time
- Activity information will be captured by group facilitators

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Identifying NEW Mitigation Activities

- Activity Information includes:
  - **Strategy #**
  - **Activity Description**
  - **Lead Agency**
  - **Estimated Cost** *(if applicable)*
  - **Potential Funding Sources** *(if applicable)*
  - **Timeframe for Completion**
  - **Hazard(s) to be Addressed**
  - **Point of Contact** *(Name, phone, email)*
  - **Notes**
- See handout, *Mitigation Action Worksheet*

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Prioritizing NEW Mitigation Activities

- Dewberry contractor team will coordinate with DEEP to prioritize all final mitigation activities using established criteria (STAPLE-E factors)
  - Social
  - Technical
  - Administrative
  - Political
  - Legal
  - Economic
  - Environmental
- Each mitigation activity will be scored and assigned *High*, *Medium*, or *Low* priority

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Wrap Up & Future Meetings

- Project Schedule
  - Finalize Capabilities Assessment
  - Finalize & Prioritize Mitigation Strategies/Actions/Projects
    - Completed by your Small Group Leader
  - Hazard Mitigation Plan DRAFT Review – July 19, 2013
    - Comments Incorporated
    - 2nd Review
  - Submittal to FEMA

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Questions?

DEPARTMENT OF EMERGENCY SERVICES & PUBLIC PROTECTION
EMERGENCY MANAGEMENT & HOMELAND SECURITY

Connecticut State Hazard Mitigation Plan Update
Strategy Prioritization & Plan Review Meeting

Agenda

October 26, 2018 1:00 PM – 3:00 PM
DESPP/DEMHS -1111 Country Club Road, Middletown, CT 06457
Room 245

Purpose: *Finalizing Mitigation Strategies and Draft Plan Review and Submittal*

Description	Lead	Time
Welcome	Rita Stewart, DEMHS	1:00 – 1:05
Overview of Draft Plan Status and Next Steps • Section Highlights • Review Process • Stakeholder and Public Review	Jessica Fleck, Dewberry	1:05-1:30
Review of Updated Goals, Objectives and Actions • Disposition of Actions from Last Plan • Actions for the New Plan Update	Jessica Fleck, Dewberry	1:30 – 2:00
Action Evaluation and Ranking Exercise • STAPLE/E Evaluation • Ranking of Actions	Jessica Fleck, Dewberry David Murphy, Dewberry Team (Milone & MacBroom)	2:00– 2:50
Wrap Up and Next Steps • Public and Stakeholder Review • FEMA Review Submittal	Jessica Fleck, Dewberry	11:45– 12:00

State Natural Hazard Mitigation Plan – Plan Review Meeting

DESPP HQ, Room 349
1111 Country Club Road, Middletown, CT

October 26, 2018

Sign In Sheet

	Name	Agency	email
1.	Scott Choquette	Delaberry	schoquette@delaberry.com
2.	Will Kenny	WestCOG	wkenny@westcog.org
3.	Chris Martin	DEEP	christopher.martin@ct.gov
4.	Rita Stewart	DESPP/DEMHS	rita.stewart@ct.gov.
5.	Bill Perkins	CRCOG	wperkins@crcog.org
6.	Ken Dumais	DEMHS / DESPP	Kenneth.Dumais@ct.gov
7.	Margaret Thomas	DEEP / Geological Survey	margaret.thomas@ct.gov
8.	Lisa Park Borush	UCONN	lisa.park-borush@uconn.edu
9.	David Kallander	DPH	david.kallander@ct.gov
10.	Joanna Wozniak-Brown	NHROG	jbrown@northwesthillsrog.org
11.	George Bradner	DOI	george.bradner@CT.gov

12.	Henry Praszczuk	DESPP/DEMHS	henry.praszczuk@ct.gov
13.	Christopher Brochu	CONN DOT	Chris.brochu@ct.gov
14.	DOUG DALENA	GOV'S GENERAL COUNSEL	doug.dalena@ct.gov
15.	Kris Wohlgemuth	DEMHS - HM, FS	kris.wohlgemuth@ct.gov
16.	BILL HACKETT	DEMHS	
17.	DOUG ROYALTY	SHPO	doug.royalty@ct.gov
18.	Brenda Bergeron	DESPP/DEMHS	brenda.bergeron@ct.gov
19.	ERIC K. LINDQUIST	CT OPM	ERIC.K.LINDQUIST@ct.gov
20.	Matt Fulda	CT metro COG	mfulda@ctmetro.org
21	PATRICK CARLTON	METRO COG	PCARLTON@CTMETRO.ORG
22.	Connie Mendolia	CT DEEP	connie.mendolia@ct.gov
23.	David Murphy	Consultant	dmurphy@mninc.com
24.	Jess Fleck	Consultant	jfleck@dewberry.com

Connecticut Natural Hazard Mitigation Plan 2019 Update:
Strategy Prioritization & Plan Review

October 26, 2018

1:00 PM – 3:00 PM
CT DESPP/DEMHS
1111 Country Club Road
Middletown, CT 06457

DEPARTMENT OF EMERGENCY SERVICES & PUBLIC PROTECTION
EMERGENCY MANAGEMENT & HOMELAND SECURITY

Meeting Agenda

- Welcome & Introductions
- Overview of Draft Plan Status and Next Steps
  - Plan Review Timeline
  - Overview of Plan Changes
- Review of Updated Goals, Objectives, and Strategies
- Action Evaluation and Ranking Exercise
- Wrap Up and Next Steps

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DRAFT PLAN STATUS AND OVERVIEW

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Plan Review Process

- Oct 26 – Plan Review Meeting
  - *Incorporate comments*
- Oct 31 – Post Draft Plan for committee and public review
- Nov 9 – Receive comments from committee and public
  - *Incorporate comments*
- Nov 15 – Submit to FEMA Region I

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Chapter 1: Introduction & Planning Process

Describes the background and authorities governing the update of the plan, as well as the plan participants, planning process, and the relevance of other planning documents

2019 HMP CHANGES TO INTRO & PLANNING PROCESS

1. Online survey was slightly expanded to include additional hazards
2. SHMPT and stakeholder changes (team leads and makeup)
3. Stakeholder touchpoints were included
4. Review comments and feedback will be captured here

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Chapter 2: Natural Hazard Identification & Risk Assessment

Contains three main components – Identification, Risk Assessment, and Vulnerability Analysis of hazards. These hazards are then ranked.

2019 HMP CHANGES TO THE HIRA

1. Climate Change section added, with specific discussion under each hazard as well
2. Ice Jams included in flood hazard section due to recent events
3. State and critical facilities were updated using new values provided by the State
4. NCDC data was converted to NCEI, which altered hazardous weather event counts
5. FEMA provided courtesy review with positive initial feedback

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Chapter 3: Capabilities Assessment

Details the role of federal, state, and local agencies in assisting with mitigation and risk reduction activities across the State. This section highlights programs and policies at all levels of government which support the State's mitigation strategies.

2019 HMP CHANGES TO THE CAPABILITIES ASSESSMENT

1. Addition of CIRCA
2. Updates to State plans and policies
3. Updated changes to legislation
4. Inclusion of the State Water Plan
5. Increased emphasis on local capabilities

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Chapter 4: Local Plan Coordination

Summarizes the status of local plans in Connecticut, projects that have been implemented with FEMA funding at the local level, and the local planning process.

2019 HMP CHANGES TO LOCAL PLAN COORDINATION

1. Larger emphasis on local coordination throughout the plan

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Chapter 5: Hazard Mitigation Strategy

Presents the mitigation goals, objectives, strategies, and associated actions identified to reduce the risk from hazards across the State

2019 HMP CHANGES TO HAZARD MITIGATION STRATEGY

1. Updated Goals and Objectives (will go into more detail shortly)
2. Actions have been updated and a handful of new actions added
3. Implementation recommendations
4. Progress on 2014 actions

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Chapter 6: Plan Monitoring, Maintenance, and Revision

Outlines implementation of the plan and development of the 2024 plan revision.

2019 HMP CHANGES TO PLAN MONITORING, MAINTENANCE & REVISION

1. Updated mitigation project tracker
2. Updated schedule for monitoring, maintenance, implementation, and revision to reflect next five-year period

Dewberry

Plan Draft Process Next Steps

- Committee and Public Comments Received– November 9th, 2018
- HMP to FEMA – November 15th, 2018
- CT DESPP Signed Resolution
- FEMA Comments & Approval
- Next Steps:
  - Continued participation of Steering Committee
    - Implementation & Maintenance of HMP

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GOALS, OBJECTIVES, AND STRATEGIES

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Updated Goals, Objectives, and Strategies

- **GOAL 1**: Promote implementation of sounds floodplain management and other natural hazard mitigation principles on a state and local level
- **Objective for Goal 1:** *To increase general awareness of Connecticut's natural hazards and encourage State agencies, regional entities, local communities, and the general public to be proactive in taking actions to reduce long-term risk to life and property.*
  - **Strategy 1.1** – Provide technical guidance to communities on existing hazard mitigation opportunities with an emphasis on new or improved development or redevelopment, including local floodplain ordinance enhancement and enforcement.
  - **Strategy 1.2** – Conduct public outreach and provide educational opportunities to State agencies, local communities, and other stakeholders on existing natural hazards and the mitigation measures available to reduce hazard risks, including the use of RiskMAP products and new mapping data.
  - **Strategy 1.3** – Strengthen, support and enhance State policy and legislative efforts to mitigate the effects of natural hazards and adapt to climate change. Initiate new policy and legislative efforts as needed.
  - **Strategy 1.4** – Use State Agencies for Resilience (SAFR) to continue coordination and leverage resources across State agencies by integrating hazard mitigation, climate adaptation and resilience principles into other relevant plans, policies, or program activities.
  - **Strategy 1.5** – Increase emphasis on Long Term Recovery Planning statewide in advance of future disasters.
  - **Strategy 1.6** – Encourage less development in risk zones, statewide, by promoting the NFIP Community Rating System (CRS) and by encouraging open space planning.

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CHANGES TO GOAL #1 STRATEGIES

- **Strategy 1.2** – Conduct public outreach and provide educational opportunities to State agencies, local communities, and other stakeholders on existing natural hazards and the mitigation measures available to reduce hazard risks, **including the use of RiskMAP products and new mapping data.**
- **Strategy 1.4 – Use State Agencies for Resilience (SAFR) to continue coordination and leverage resources across State agencies by integrating hazard mitigation**, climate adaptation and resilience principles into other relevant plans, policies, or program activities.
- **Strategy 1.5** – Increase emphasis on Long Term Recovery Planning statewide in advance of future disasters.
- **Strategy 1.6** – Encourage less development in risk zones, statewide, by promoting the NFIP Community Rating System (CRS) and by encouraging open space planning.

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Updated Goals, Objectives, and Strategies

- **GOAL 2**: Implementation of effective natural hazard mitigation projects on a state and local level
- **Objective for Goal 2**: *To enhance the ability of State agencies and local communities to reduce or eliminate risks to life and property from natural hazards through cost-effective hazard mitigation projects, including avoidance.*
  - **Strategy 2.1** – Refine State-level priorities and evaluation criteria for hazard mitigation project funding (with emphasis on RL and SRL properties) that is provided or administered by the State, including FEMA grant funds.
  - **Strategy 2.2** – Identify, develop, and prioritize hazard mitigation projects including climate change adaptation strategies and relocation for State-owned facilities considered at risk to natural hazards.
  - **Strategy 2.3** – Develop, maintain and provide the best available data, training, and technical assistance to State agencies and local communities to assist in the identification, development, and implementation of cost-effective hazard mitigation projects, including relocation or siting of new facilities to avoid hazards, particularly when applying for Federal and State funds.
  - **Strategy 2.4** – Increase and promote the availability of various funding mechanisms to support hazard mitigation project implementation, including Federal, State, and non-governmental sources, by increasing the use of REPTs to educate elected officials.
  - **Strategy 2.5** – Routinely monitor the implementation of hazard mitigation projects, tracking progress through project closeout and beyond to capture success stories (losses avoided) and lessons learned.
  - **Strategy 2.6** – Increase coordination among state agencies to more centrally disseminate data that is developed and maintained in order to promote mitigation action.

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CHANGES TO GOAL #2 STRATEGIES

- **Strategy 2.4** – Increase and promote the availability of various funding mechanisms to support hazard mitigation project implementation, including Federal, State, and non-governmental sources, by increasing the use of REPTs to educate elected officials.
- **Strategy 2.6** – Increase coordination among state agencies to more centrally disseminate data that is developed and maintained in order to promote mitigation action.

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Updated Goals, Objectives, and Strategies

- **GOAL 3**: Increase research and planning activities for the mitigation of natural hazards on a state and local level
- **Objective for Goal 3**: *To increase general awareness of Connecticut's natural hazards and encourage State agencies, local communities, and the general public to be proactive in taking actions to reduce long-term risk to life and property.*
  - **Strategy 3.1** – Promote natural hazard mitigation research and planning activities that will improve hazard mitigation, resilience and climate adaptation planning and implementation on a State, regional and local level.
  - **Strategy 3.2** – Conduct outreach and provide educational opportunities to state agencies, local communities, regional entities and other stakeholders to assist in translating research and planning activities into practice, using COGs and REPTs to help spread the word.
  - **Strategy 3.3** – Investigate climate change adaptation strategies as they affect natural hazard mitigation and State investment policies, and link hazard mitigation activites with climate adaptation strategies when appropriate and possible.
  - **Strategy 3.4** – Research methods and take action to better engage the private sector and non-profit organizations in hazard mitigation planning activities on a State, regional and local level, including coordination with utility companies to better prepare for, mitigate against, and respond to natural hazard events.
  - **Strategy 3.5** – Create an easy to find and use clearinghouse of UCONN/CIRCA research and data products, local resilience plans and initiatives, and evidence based best practices so that users have easy access to usable products.

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Changes to Goal #3 STRATEGIES

- **Strategy 3.1** – Promote natural hazard mitigation research and planning activities that will improve hazard mitigation, resilience and climate adaptation planning and implementation on a State, regional and local level.
- **Strategy 3.2** – Conduct outreach and provide educational opportunities to state agencies, local communities, regional entities and other stakeholders to assist in translating research and planning activities into practice, using COGs and REPTs to help spread the word.
- **Strategy 3.5** – Create an easy to find and use clearinghouse of UCONN/CIRCA research and data products, local resilience plans and initiatives, and evidence based best practices so that users have easy access to usable products.

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MITIGATION ACTIONS

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Prioritizing Mitigation Activities

- STAPLE-E criteria:
  - **S**ocial
  - **T**echnical
  - **A**dministrative
  - **P**olitical
  - **L**egal
  - **E**conomic
  - **E**nvironmental
- Each mitigation activity scored and assigned *High*, *Medium*, or *Low* priority

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Mitigation Action Personal Ranking

STEP #1	STEP #2	STEP #3	STEP #4
Spend the next 20 minutes reviewing the mitigation action handout	Rate the actions (in the 2019 Activity Status Column) HIGH, MEDIUM, OR LOW priority	Keep in mind the STAPLE-E Criteria	If you have any edits or notes to specific actions, please fill free to highlight them and hand back your sheet to Dewberry

Dewberry

Mitigation Action Group Ranking - DOTs

You have been given **20** Dots

GET UP!
Place your dots on **YOUR** highest priority mitigation actions

If you **LOVE** an action and it is really important to you, feel free to place more than one dot

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Mitigation Action Review

- Review the rankings of the action items
- Answer any questions, concerns or follow-up

YOU ARE FREE TO GO!

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STATE OF CONNECTICUT
DEPARTMENT OF EMERGENCY SERVICES & PUBLIC PROTECTION
DIVISION OF EMERGENCY MANAGEMENT & HOMELAND SECURITY

Regional Collaboration Committee

DESPP HQ – Room 349, 1111 Country Club Road, Middletown
Friday, October 27, 2017
10:00 AM – 12:00 PM

AGENDA

1. Welcome
2. DEMHS Updates
   a. 2019 Update of the State Natural Hazard Mitigation Plan
   b. First Net Initiative
   c. Crumbling Foundations
   d. Hurricane Relief Evacuee Support Planning Work Group
   e. 2017 EPPI – State-wide Exercise
3. Grants Update
   a. Homeland Security Grant Program (HSGP)
      a. Status of FY 2015, 2016, 2017
   b. Emergency Management Performance Grant Program (EMPG)
   c. Sub-grantee Monitoring Visits (EMPG, HSGP)
   d. Other Grants: Grants to States for Emergency Management (GSEM), School Security Grant Program (SSGP)
4. Round Table Discussion
5. 2018 Meeting Dates
   a. Next Meeting: January 26th
   b. Schedule for Best Practice Presentations (January, April Meetings)

1111 Country Club Road, Middletown, CT 06457
Phone: 860.685.8531 / Fax: 860.685.8902

Emergency Management and Homeland Security
Regional Collaboration Sub-Committee

Date: October 27, 2017

Location: Department of Emergency Services and Public Protection
Headquarters, Room 349
1111 Country Club Road
Middletown, CT 06457

In Attendance: Michelle Deluca (REPT R1), Mike Vincelli (REPT R1), Karen Cammarota (Stamford –R1 Fiduciary), Laura Francis (REPT 2), Torrance Downes (RiverCOG-R3 Fiduciary), Cheryl Assis (CRCOG-R3 fiduciary), Dustin Rendock (REPT 3) Joe Sastre (REPT R4), Mark Paquette (REPT 4), Michael Licata (REPT R4), Gary Bunoli (REPT R5), Al Hoffman (USCG), Bill Gerrish (DPH), Francesca Provenzano (DPH), .

DEMHS/DESPP Staff in attendance: Deputy Commissioner William Hackett, Brenda Bergeron, John Warren, Robert Kenny (DEMHS –R1), John Field (DEMHS –R2), Mike Caplet (DEMHS R-4), Tom Vannini (DEMHS-R5), Scott Devico, Bob Drozynski, Rita Stewart.

The meeting was called to order at: 10:05 A.M.

1. Welcome

Deputy Commissioner William Hackett, welcomed everyone and thanked them for their attendance at the meeting.

2. DEMHS Updates:

a. Update of the State Natural Hazard Mitigation Plan (NHMP)

Brenda Bergeron provided an update on the status of the 2019 NHMP. The project kick off meeting is scheduled for 10/31/2017 at 10 AM at DESPP HQ. Agenda Items include introduction of participants, update requirements, planning purpose and process, data needs and future meetings of the planning team.

b. First Net Initiative

Deputy Commissioner Hackett explained that the Governor of each State has three options regarding FirstNet. Opt in and allow FirstNet to build out its network in the State. Opt out, which will require the State to building the network in its own or in conjunction with a contractor, or do nothing which as of December 28, 2017 will have the same result as opting in. The State has issued an RFP for a vendor in order to make an informed decision.

c. Crumbling Foundations

Brenda Bergeron gave an update on the issue of crumbling foundations. FEMA has assigned a Senior Recovery Coordinating Officer to assist the State in looking at various federal resources. Earlier this month, FEMA and the US Army Corp of Engineers completed a two day visit meeting with homeowners and scientists.

d. Hurricane Relief Evacuee Support Planning Work Group

Brenda Bergeron said that DEMHS is coordinating the effort to support PR evacuees. Coordination conference calls with disaster case management providers, regional assistance centers, state agency partners such as DSS, DOH and other partners are held on Tuesday afternoons. Many cities have set up

assistance centers including CREC-Hartford, Bridgeport, New Haven etc. United Way 2-1-1 has developed and maintains a resource guide of resources for the evacuees.

e. DESPP/DEMHS staff: DC Hackett said the agency was able to fill some its vacancies including the Supervisor of the REP Unit, an Emergency Management Program Specialist (EMPS) for the REP unit, an EMPS for field support/HMGP and an EMPS/Planner for Region 3.

3. Grants Update

a. Homeland Security Grant Program (HSGP)

1. Status of FY 2015

A supplemental allocation in the amount of $87,093.90 was offered to each REPT. Each REPT has indicated that they will accept the funds. As recommended by the HS Working Group, we encouraged the use of the funds is R 1, 2, 3 to support the bomb squads. Since we also needed some of the funds to be used for LETP, we made it a condition that R, 1, 2, 3 spend at least $40,000 of their allocation on the bomb squads. The residual funds were due to vacancies and current RILO vacancies.

2. Status of FY 2016

Please continue to send in quarterly reports, reimbursements for expenses and deliverables

3. FY 2017 - Sub-grant Application

Rita Stewart reported that DEMHS received all of the signed awards back from every sub-grantee within the 45 day DHS/FEMA Deadline. She thanked the REPTs and other sub-grantees for their cooperation.

4. Emergency Management Performance Grant Program (EMPG)

The performance period for 2014 has ended, and we are in our 90 day close out period
2015 currently ends 3/31/2018, we are planning a generator replacement program (replacement of existing generators for shelters/EOCs – replacement only we do not have time for EHPS)
FY 2016 also ends on 9/30/2018

5. Sub-grantee Monitoring Visits (EMPG, HSGP)

We have completed our required monitoring visits for both EMPG and HSGP.

6. Other Grants: Grants to States for Emergency Management (GSEM), School Security Grant Program (SSGP)

Since the last meeting we received one year no cost extension on the GSEM Grant which is a partnership w SDE. The funds will be fully expended by March 2019

SSGP: Round 3 applications were due on 10/02/2017, staff is currently ranking projects and we anticipate issuing awards in late November. We received 115 applications 74 public, 41 nonpublic – or private Round 3 did increase the eligible applicants – in addition to public schools, private schools, child day care center and pre-schools that have received threats were included

Meeting adjourned at 12:00 PM

STATE OF CONNECTICUT
DEPARTMENT OF EMERGENCY SERVICES & PUBLIC PROTECTION
DIVISION OF EMERGENCY MANAGEMENT & HOMELAND SECURITY

DEMHS STATEWIDE EMERGENCY MANAGEMENT AND HOMELAND SECURITY ADVISORY COUNCIL
Thursday, January 11, 2018 - 9:00 a.m.

****NEW MEETING LOCATION****
Department of Emergency Services & Public Protection HQ
1111 Country Club Road – Room 349, Middletown, CT 06457

AGENDA

1. Welcome and Pledge of Allegiance
2. Acceptance of the October 12, 2017 Meeting Minutes
3. Public Comments
4. Committee Reports:
   a. Interoperability Communications Committee (ESF 2)
   b. Citizen Corps Advisory Council (ESF 5)
   c. Child Emergency Preparedness Committee (ESF 5)
   d. Regional Collaboration Committee (ESF 5)
   e. Incident Management Committee (ESF 5)
   f. Emergency Management Data Working Group (ESF 5)
   g. Mass Care Working Group (ESF 6)
   h. Resource Support/Private Sector Committee (ESF 7)
   i. Medical Reserve Corps (ESF 8)
   j. Public Health and Medical Services (ESF 8)
   k. SERC/HAZMAT (ESF 10)
   l. Energy Work Group (ESF 12)
   m. State Long Term Recovery Committee (ESF 14)
   n. Emergency Communications and External Affairs (ESF15)
5. Acceptance of Committee Reports
6. DEMHS Division Update
7. Grants Update
8. Old Business:
9. New Business:
10. Round Table
11. Meeting Adjournment

Next Meeting - Thursday, April 12, 2018

1111 Country Club Road, Middletown, CT 06457
Phone: 860.685.8531 / Fax: 860.685.8902

DEPARTMENT OF EMERGENCY SERVICES AND PUBLIC PROTECTION
DIVISION OF EMERGENCY MANAGEMENT AND HOMELAND SECURITY

DEMHS STATEWIDE EMERGENCY MANAGEMENT AND HOMELAND SECURITY ADVISORY COUNCIL MEETING MINUTES

Department of Emergency Services and Public Protection
1111 Country Club Road, Middletown, CT 06457
January 11, 2018 – 9:00 a.m.

Attendees: William Hackett, Department of Emergency Services and Public Protection, Division of Emergency Management and Homeland Security (DESPP/DEMHS); Brenda Bergeron, DESPP/DEMHS; Jeff Semancik, CT DEEP; Mike Caplet, DEMHS Region 4; Sandra Baker, DEMHS; Gerald Goudreau, SERC; Astread Ferron-Poole, DSS; Vincent O'Neill, CT National Guard (CTNG); Albert Hoffman, USCG; Matt Richards, USCG; Scott Devico, DESPP/DEMHS; John Warren, DESPP/DEMHS; John Gustafson, DESPP/DEMHS; Jeffrey Morrissette, DESPP/CFPC; Richard Porth, United Way 2-1-1; Mark Amatrudo, Citizen Corps Council; Joseph Sastre; CT Emergency Management Association (CEMA); James O'Leary, Council of Small Towns (COST); Kenneth Dumais, DESPP/DEMHS, Cheryl Assis, Capitol Region Council of Governments (CRCOG); George Bradner, Department of Insurance (DOI); Bob Smith, UPFFO; John Oates, East Hartford Fire (Ret.), CT Career Fire Chiefs; Sergio Perez, Dept of Correction; Rita Stewart, DEMHS; Frank Prochaska, DEMHS; William Gerrish, Dept of Public Health (DPH); William Turley, DEMHS Region 3; Thomas Vannini, DEMHS Region 5; Robert Kenny, DEMHS Region 1; Doug Pesce, US DHS; Richard Branigan, Red Cross; Katherine McCormack, MRC

1. Welcome and Pledge of Allegiance

Deputy Commissioner Hackett called the meeting to order at 09:03 hours and welcomed everyone to the meeting. Attendees took a moment to say the Pledge of Allegiance and gave self-introductions. Two DEMHS new hires were also introduced – Bryan Gran, Radiological Emergency Preparedness Unit and Frank Prochaska, DEMHS Recovery Unit.

2. Acceptance of the October 12, 2017 Meeting Minutes.

A **MOTION** was made by Mr. Armatrudo and **SECONDED** by Mr. Gustafson to approve the Minutes of the October 12, 2017 meeting. Motion carried.

3. Public Comments

None

4. Committee Reports

a. **Interoperability Communications Committee (ESF 2)** – D/C Hackett announced that the Governor has opted into the FirstNet Nationwide Public Safety Broadband Network (NPBSN) for Connecticut. This public/private partnership will support first responders by providing a reliable, public safety grade wireless broadband network. The D/C provided the history of FirstNet, the FirstNet/ATT State Plan, and the State's RFP process. Mr. Gustafson reported that, at a Special Meeting held on December 12, the SEIC voted unanimously to recommend to the Governor that opt in to the FirstNet Network. Mr. Gustafson thanked the members of the SEIC Wireless

Broadband Working Group for their diligence in carefully evaluating all of the various factors involved.

SCIP Plan Review

Work continues on implementation of the goals and objectives of the State Communications Interoperability Plan (SCIP). The Plan can be found on the DESPP/DEMHS Web page under both State Interoperability and the Field Support Unit.

The following items were accomplished since the last Advisory Council meeting:

- Ensured that each DEMHS Region is adequately represented in deliberations by identification of those who serve on Regional REPT ESF2 Committees, and added the contact info to WebEOC.
- Developed a Procedure for Credentialing COML's and COMT's which has been sent to the Deputy Commissioner for review and approval.

Training Courses

A Communications Unit Leader (COML) course will be conducted on April 9-11, 2018 at the DESPP Brainard Facility. Interested parties may register for this three- day course through the DEMHS Training Web Page.

WebEOC and ESF 2

Two special sections of WebEOC have been established. The first provides all of the information which may be required by a COML or COMT including ICS 205 and 217 forms as well as Regional TICP Plans, etc. This was developed to provide a central repository for sensitive communications information.

Secondly, we have established special access to WebEOC for 911 PSAPs which allows them to view all WebEOC Boards as well as make changes and updates to the street closure Boards. To date it has been completely rolled out in CSP Dispatch Centers, and we expect complete rollout during the next several months to all PSAPs.

Interoperable Communications Grant Reviews

In the past quarter, the SEIC conducted and approved one grant interoperable communications review. The request for an Amateur Radio Repeater in Region 5 was approved in December.

8Call90/8Tac Radio Replacement

Phase one of this multi-phase project to update the 8Call90/8Tac command and control radio system is underway. Replacement of Control Stations in each of the State's Public Safety Answering points is taking place. 256 new 8Call/8Tac portable radios have been received and are in the process of programming. These radios in addition to providing local public safety officials access to the 8Call90/8Tac channels will also offer access to a number of 700 MHz interoperability channels, and several talk groups on the State Trunked Radio System for interoperability use. The system upgrades will enhance the ability of Connecticut's Public Safety community to communicate with each other during major incidents, and disasters. The first portable radio deployments will take place in DEMHS Region 3.

STOCS Box Radio Maintenance

The replacement of batteries, repairs, and updates of the STOCS boxes used for on-scene interoperability has been completed; each unit has had its battery replaced and checked for functionality.

Mobile Communications Vehicles (MCVs)

Annual mechanical and electronic maintenance is underway for the six MVCs, one located in each region and one as a statewide asset.

The MCV for Region 3 has been issued to the Town of Farmington and has been put to good use since assignment.

In calendar year 2017, the five MCV units deployed 43 times to a variety of events.

The next meeting State Interoperability Executive Committee is Tuesday January 16 at 1300 hrs at DESPP HQ, Room 349.

b. **Citizen Corps Advisory Council (ESF 5)** – Chief Mark Amatrudo, Committee Chair, reported that the 2017 template of activities will be going out; due back by end of January. FEMA presentation of national Citizen Corps Council award to CT team is scheduled for March 15th. Focus for 2018 is to develop teams; recruitment and retention; NIMS usage among teams.

c. **Child Emergency Preparedness Committee (ESF 5)** – Thomas Vannini gave an update on the following issues: Group is motivated; Web link on Child Preparedness to provide information for parents, working with Eric Scoville; Working with Red Cross and Grants Unit to get funding for Pack and Plays for regional shelters, and getting them out into the field.

d. **Regional Collaboration Committee (ESF 5) –** Rita Stewart reported the last meeting of the Regional Collaboration Committee was held on October 27th; next Regular meeting is scheduled for later this month, January 26th.

- The Committee received updates on the FFY 2017 federal grant awards received for HSGP and EMPG.
- The Committee was updated on other DEMHS initiatives including: the 2019 Update of the State Natural Hazard Mitigation Plan, FirstNet Initiative and the Hurricane Relief Evacuee Support Planning Work Group.

e. **Incident Management Committee (ESF 5)** – Report given by John Warren.
The last meeting was held prior to the holidays. Region 2 Coordinator John Field is coming back January 16 and will schedule the next meeting.

f. **Emergency Management Data Working Group (ESF 5)** – Report provided by Ken Dumais

- Quarterly meetings will resume Feb, 2018
- EOC Dashboard Project

g. **Mass Care Working Group (ESF 6)** – Report provided by Ken Dumais

- Supporting the Hurricane Relief Evacuee Support Planning Working Group efforts, including assisting with coordination of Disaster Case Management with partners (United Way 211,

Salvation Army, Catholic Charities, Dept of Housing and Dept of Social Servicers) for the Puerto Rican evacuees from Hurricane Maria and Irma.

h. Resource Support/Commodities (ESF 7)

- Sergio Perez attended meeting on behalf of Deputy Commissioner Cepelak.
- Update on move of State Staging Area (SSA) to Manchester.

i. Medical Reserve Corps (ESF 8) - report given by Katherine McCormack

MRC Unit leaders continue to participate in monthly MRC Well Check conference calls. The most recent was January 9, 2018 and focused on the MRC Program Core Competencies. The Competencies were revised 2015 based on MRC Competency Advisory Committee.

The Capitol Region MRC recognized one of its long standing volunteers, retired Col. Robert Nearine, with the Josephine Picone Memorial Merit Award at its December 2017 meeting/training/volunteer recognition. Josephine Picone was one of the first CR-MRC volunteers in 2003 and Jo received an MRC Merit Award from Jeff Bauman (Boston Marathon/Stronger) at the 2014 Citizen Corps Council Conference 2014. Jo died on Thanksgiving Day 2017.

Katherine McCormack continues to attend and participate in the CT Citizen Corps Council monthly meetings representing Connecticut's MRC program.

The 2018 MRC Challenge Award applications closed mid-December and several CT MRC units applied for new or continuation funding. Six CT units were awarded funding in 2017. The National Association of County and City Health Officials (NACCHO) 2018 Challenge awards will be announced on or about January 26, 2018.

West Haven MRC has a new unit coordinator, Joe Soto.

Congratulations to Monica Wheeler, Westport, Weston, Wilton MRC on her December 31, 2017 retirement. Mike Vincelli has been appointed the new MRC Coordinator.

Many of the CT MRC unit leaders will be attending the Preparedness Summit in Atlanta, April 17-20, 2018. This year's theme is "Strengthening National Health Security: Mastering Ordinary Responses, Building Resilience for Extraordinary Events."

j. Public Health Advisory Committee (ESF 8) – report given by Bill Gerrish

- The ESF Committees operate as Healthcare Coalitions and are very busy and will continue to be busy over the coming months.
    - Formalizing Governance Structures
    - Hazard Vulnerability Assessment
    - Preparedness Plans
    - Coalition Surge Test - testing evacuation of hospitals in each Region - May, 2018
    - Mobile Field Hospital
    - Inventory Mass Care Trailers
    - SNS position filled

k. SERC/HAZMAT (ESF 10) – report given by Gerald Goudreau

- Funding Approvals
- Peter Zack is new replacement for Mark DeCaprio who retired.

l. Energy Work Group (ESF 12) – report given by Robert Kenny

- Meeting on Nov 30th was rescheduled.

- Update on DEMHS participation in Black Sky Exercise held on Dec 5th
- Regional Interagency Steering Committee (RISC) Update
    - Extended Power Outages
    - FEMA Annex – Power Outage Planning Meetings scheduled quarterly for 2018
- Make Safe Update – John Warren and Robert Kenny answered questions from meeting participants. They attended a PURA technical meeting regarding the response to the recent windstorm and provided all the information that we had collected regarding that response.

m. <u>State Long Term Recovery Committee (ESF 14)</u> – Report given by George Bradner

- VOAD
- Housing
- IA Working Groups
- Weekly Case Management Meetings
- Building Codes
    - standards required for new construction/replacement
    - Code Changes – Zone C&B
    - Commercial vs. Residential requirements
    - Rebuilding after recovery
- UCONN report on Sea Level Rise
- Insurance Prospective – Significant year of catastrophic losses est. 15 billion.
- Climate Changes
    - Tornado
    - Fires
    - Drought (Wild Fires and Mud Slides out West)
    - Significant Rainfall amounts
    - Predictions - Loss over 200 billion

n. <u>Emergency Communications and External Affairs (ESF 15)</u> – Scott DeVico

- Evacuee Updates – 211
- SEOC activation press releases to public on storm activities

5. A **MOTION** was made by Mr. Goudreau and **SECONDED** by Mr. Porth to accept the committee reports. Motion carried.

6. DEMHS Division Update.

<u>Highlights</u>

Conducted 7 local CEO/ EMD visits in all five DEMHS Regions, which included cyber security workshop as this year's EPPI Regional Delivery, conducted December 4th – 20th, Cyber TTX and National Level Exercise prep.

- 127 municipalities and both tribal nations participated.

State Agency EPPI delivery was conducted at the SEOC on December 19th

- 23 agencies participated—State Response Framework and WebEOC were the training focus.

<u>Operations Training and Exercise</u> (John Warren, Manager)

<u>Operations</u>

- 1 SEOC activation since the last report; January 4th , Winter Storm

- Continue coordinating state support to Hurricane Maria

Training

- ICS-400, Farmington, began yesterday, concludes January 17th.
- Community Emergency Response Team Training (CERT) Saturday, January 20th and 27th, Brainard
- Two of our Regional Coordinators attending the Hurricane Course for Decision Makers, at the National Hurricane Center, the end of January
- School All Hazards Planning Course, February 20-21, 2018, location TBD
- We continue to train on the updated WebEOC product, over 600 students statewide, next class, Monday, January 29th at Brainard.
- Training opportunities and training videos are available on the DEMHS website

Exercise

- See above Highlights. Also, on-going planning for both NLE Cyber Storm VI (April), and FEMA Region-1 NLE Patriot Response, (May)

Urban Search and Rescue (Bill Higgins, Director of Training, CFA)

- Bill Higgins, Director of Training CFA, is the acting USAR Coordinator
- CT TF-1 STATUS – FULLY DEPLOYABLE— *This is a state USAR Team, not a federalized team.*
- No recent deployments
- Current membership is 85.
- Task Force Leaders - Kevin Manzolillo and Brian Bigda attended a national USAR 2 day training conference.
- 9 persons were recertified for Swift water
- 8 - Four hour Administrative training sessions and 4- Eight hour Practical training sessions have been completed to date resulting in 486 training man hours
- There are 2 Field Force training programs scheduled for January in conjunction with the Connecticut Fire Academy

Field Support Unit (John G. Gustafson, Manager)

- Initiated program to transfer generators from the State's reserve stock to each Region: Generator Program 3/5 completed;
- Participating in development of the State Cyber Disruption Response Plan;
- Continue to participate in development of Federal First Net Wireless Broad Band project;
- Continued to provide support to the USAR Logistics function;
- Continue to maintain two functional needs equipment trailers available for deployment as needed to Regional Shelters;
- Continue to maintain the five Mobile Communications Vehicles to host communities in each DEMHS Region;
- Continue maintenance of the State Strategic Technical Reserve of communications assets;
- Continue to support the upgrade and installation of equipment and systems into DEMHS Facilities.
- Upgrade of computer workstations in State EOC completed;
- Continued work on upgrades and revisions to the WebEOC system both hardware and software;
- Continue to participate in the FEMA Region 1 Regional Emergency Communications Working Group (RECCWG)
- Participated in FEMA Region 1 Logistics planning conference calls;
- Planning potential habitability and operational upgrade to State EOC.

- Planning and implementing move of DEMHS Region 3 from the State Armory to the DESPP Brainard Field facility;
- Planning and implementing improvements to enhance Radio systems used as part of the radiological emergency planning program;
- Planning and integration of Connecticut EAS and Amber Alerts into the FEMA IPAWS System;
- Planning and implementing improvements to enhance Radio systems used as part of the radiological emergency planning program.
- Planning and integration of Connecticut EAS and Amber Alerts into the FEMA IPAWS System.

All-Hazards Planning Unit (Brenda Bergeron, coordinating in place of vacant Planning Manager position)

- All required Annual Reports filed with legislature: DEMHS; Child Emergency Preparedness; School Security Plan Standards Report
- Crumbling Foundations—working closely with Governor's Office and other state agencies, FEMA and US Army Corps of Engineers
    - Set standards for quarries
    - Standardize testing
    - Long Term remediation
    - Potential Federal Funding
    - Website set up by CROG with info on reimbursement process
- Puerto Rico Evacuees Assistance Update
    - FEMA Temporary Shelter Assistance (TSA) Program (number fluctuates, but about 193 families living in hotels)
    - United Way 211, Catholic Charities, Salvation Army, CT DSS leading the statewide disaster case management effort
    - Weekly Working Group meetings
- Cyber Response
    - Cyber Disruption Response Plan draft is being finalized
    - Cyber Incident Response Plan template shared with municipalities
- Updating Local EMD/CEO Handbook
- Preparing for EMAP Accreditation
- REP Exercise Update
    - February 28 Plume Exercise Rehearsal
    - March 20 Evaluated Plume Exercise

Hazard Mitigation

- Update State Hazmat Plan – expires Jan 2019
- Non Disaster Hazard Mitigation Grants (FMA and PDM)
- $33 million in grants/projects ongoing

Recovery Unit

(Dana Conover, Supervisor)

- The Recovery Unit continues to administer the FEMA Public Assistance program, including working with sub grantees on extensions and appeals to FEMA.
- Open Disasters $259 million in federal share of combined disasters
- Appeal taking place re FEMA vs. Federal Highway Administration (FHWA) Funds

Community Preparedness and Strategic Planning

(Joseph Duberek, Manager; Rita Stewart, Supervisor)

- School Security Grant Program Applications (round 3) should be issued within the next two weeks.
- HSGP:
  - Since the last meeting, we have issued supplemental allocations to the REPTs under FFY 2015 funding.
- EMPG:
  - Generator Grant Program we will be issuing sub-grant awards to towns for this round under FFY 2015 EMPG.

- Upcoming FEMA monitoring visit, end of February, on various non-disaster and disaster grant programs.

- THIRA/SPR update was completed with the assistance of various SMEs.

- SBA declaration: Following a December 11th condominium fire, DEMHS CPSP Unit coordinated with the DEMHS Region 1 office, the city of Norwalk and SBA to confirm that the event met SBA's criteria for the release of their Disaster Loan Program.

8. Old Business - None

9. New Business - None

10. Roundtable (Updates)

- Rick Porth (211/United Way) – Relocating Individuals; TSA placements and deadlines; DSS and DOH helping with case management; 211 handled nearly 3,000 calls; impact heaviest in Hartford; Also, New Haven, Waterbury and Bridgeport. Extended Cold Weather Event – 1,000 calls taken; 48 transport arrangement; 18 placed in hotels due to cold; 11,000 search 211 website during event.
- Rich Branigan (Red Cross) Sending EMS, Fire Chiefs a one- page document on services the Red Cross offer; Deploying for mud slides; mass casualty; new volunteers being trained; 40,000 hours of service provided from NE area Red Cross.
- Kathy McCormack (MRC) – FEMA Train the Trainer Program; "When Help Arrives"/Good Samaritan law must be reviewed for protection; DEMHS Legal Counsel must review statutes.
- Astread Ferron-Poole (DSS) – Announce retirement of Peter Palermino.
- Jeff Semancik (DEEP) - Federal REP Guidance Documents; Measure Monitor First Responder Dose.
- Chief Amatrudo – Active Shooter and Hybrid document out for draft and comment; available online on NFP 3000.
- Jeff Morrissette (CFPC) – 2018 Training Calendar; Increase in Tuition due to cuts.

11. Meeting Adjournment

A **MOTION** was made by Chief Amatrudo and **SECONDED** by Mr. Branigan to adjourn the meeting. Motion carried.

Deputy Commissioner Hackett adjourned the meeting at 10:25 a.m.

Next Meeting– **Thursday, April 12, 2018 at 9:00 a.m.**

Regional Collaboration Committee

DESPP HQ – Room 349, 1111 Country Club Road, Middletown
Friday, January 26, 2018
10:00 AM – 12:00 PM

AGENDA

1. Welcome
2. DEMHS Updates
   a. 2019 Update of the State Natural Hazard Mitigation Plan
   b. First Net Initiative
   c. Crumbling Foundations
   d. Hurricane Relief Evacuee Support Planning Work Group
   e. 2017 EPPI – State-wide Exercise
3. Grants Update
   a. Homeland Security Grant Program (HSGP)
      a. Status of FY 2015, 2016, 2017
   b. Emergency Management Performance Grant Program (EMPG)
   c. DHS/FEMA Monitoring Visit
   d. Other Grants: Grants to States for Emergency Management (GSEM), School Security Grant Program (SSGP)
4. Best Practices Presentation by Region 1 REPT
5. Round Table Discussion
6. Next Meeting: April 27th

Emergency Management and Homeland Security
Regional Collaboration Sub-Committee

Date: January 26, 2018

Location: Department of Emergency Services and Public Protection
Headquarters, Room 349
1111 Country Club Road
Middletown, CT 06457

In attendance: Michelle Deluca (REPT R1), Mike Vincelli (REPT R1), Karen Cammarota (Stamford –R1 Fiduciary), Torrance Downes (RiverCOG-R3 Fiduciary), Cheryl Assis (CRCOG-R3 fiduciary), Dave Koscuk (REPT 3), Joe Sastre (REPT R4), Mark Paquette (REPT 4), Al Hoffman (USCG), Bill Gerrish (DPH),), Jim O'Leary (COST), Mike Muszynski (CCM).

DEMHS/DESPP Staff in attendance: Deputy Commissioner William Hackett, Brenda Bergeron, John Warren, Robert Kenny (DEMHS –R1), John Field (DEMHS –R2), Bill Turley (DEMHS-R3), Mike Caplet (DEMHS R-4), Carla Iezzi (DEMHS-R4), John Gustafson, , Bob Drozynski, Rita Stewart. Also in attendance Lisa Bushnell DPH OPHPR.
The meeting was called to order at: 10:00 A.M.

1. Welcome

Deputy Commissioner William Hackett, welcomed everyone and thanked them for their attendance at the meeting. Torrance Downes asked that the minutes of the November 2017 meeting be amended to include his name in the "In Attendance" section.

2. DEMHS Updates:

a. Update of the State Natural Hazard Mitigation Plan (NHMP)

The 2019 Update of the Natural Hazard Mitigation Plan is underway. The kick off meeting was held on October 31, 2018 with members of the Planning Workgroup. The 2019 Update is due by January 2019.

b. First Net Initiative

Deputy Commissioner Hackett reported that the Governor has opted in to the Firstnet initiative which will allow Firstnet buildout its network within the State of Connecticut. Prior to opting in, the State issued an RFP. Proposals were reviewed at the State Interoperable Communications meeting and the committee recommended the State opt in. All states have opted in to Firstnet, which will provide cell/data coverage to first responders at no cost to the state. The CCM conference is scheduled for April 4th in Cromwell, Firstnet will be the subject of the keynote presentation.

c. Crumbling Foundations

Brenda Bergeron gave an update on the issue of crumbling foundations. The Army Corps has provided a checklist for inspections and guidance for testing.

d. Hurricane Relief Evacuee Support Planning Work Group

Brenda Bergeron said this is an on-effort. At the direction of the Governor, the state is coordinating with partners and treating this as if it was our disaster. The number of households registered (with FEMA) as living in Connecticut rises every week. Currently there are 915 households/2,000 individuals, 2,000 children enrolled in schools, with 167 households participating in the Transitional Shelter Assistance (TSA) Program which provides funding for hotel stays. FEMA R1 has been assisting the state navigate the various programs. Cheryl Assis asked about possible funding for schools to assist with the

additional students. The State Department of Education will be sending out information once they receive it from their federal agency.

e. EPPI

Regional EMD meetings and EPPI cyber security exercise sessions were held in each region between 12/4 and 12/20. The State will participate in the NLE held on 5/15 & 5/16.

3. Grants Update

a. Homeland Security Grant Program (HSGP)

1. Status of FY 2015

A supplemental allocation in the amount of $87,093.90 was offered to each REPT. Each REPT has indicated that they will accept the funds. As recommended by the HS Working Group, we encouraged the use of the funds is R 1, 2, 3 to support the bomb squads. Since we also needed some of the funds to be used for LETP, we made it a condition that R, 1, 2, 3 spend at least $40,000 of their allocation on the bomb squads. The residual funds were due to vacancies and current RILO vacancies.

2. Status of FY 2016

Rita Stewart asked the subgrantees to continue to send in quarterly reports, reimbursements for expenses and deliverables.

3. FY 2017 - Sub-grant Application

Rita Stewart reported that DEMHS received all of the signed awards back from every sub-grantee within the 45 day DHS/FEMA Deadline. She thanked the REPTs and other sub-grantees for their cooperation.

4. Emergency Management Performance Grant Program (EMPG)

The performance period for 2014 has ended, and we are in our 90 day close out period.
2015 currently ends 3/31/2018, we are planning a generator replacement program (replacement of existing generators for shelters/EOCs). FY 2016 also ends on 9/30/2018

5. Sub-grantee Monitoring Visits (EMPG, HSGP)

We have completed our required monitoring visits for both EMPG and HSGP.

6. Other: Grants to States for Emergency Management (GSEM), School Security Grant Program (SSGP)

Since the last meeting we received one year no cost extension on the GSEM Grant which is a partnership with SDE. The funds will be fully expended by March 2019

SSGP: Round 3 applications were due on 10/02/2017, staff is currently ranking projects and we anticipate issuing awards in late November. We received 115 applications 74 public, 41 nonpublic – or private Round 3 did increase the eligible applicants – in addition to public schools, private schools, child day care center and pre-schools that have received threats were included

4. Best Practices Presentation by Region 1 REPT – Mass Care Recovery Tabletop Exercise

Michelle Deluca provided an overview of the Mass Care/Recovery Tabletop Exercise that was heldp on September 28, 2017. Over 110 attendees from Region 1 participated. (summary will be forwarded).

5. Round table discussion

The REP evaluated exercise is scheduled for 3/20 with a rehearsal on 2/28/

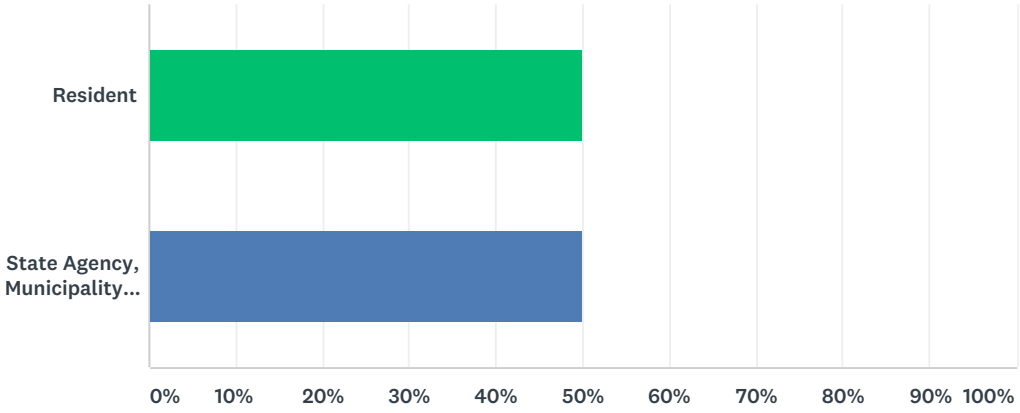
Meeting adjourned at 12:00 PM

Appendix 1-3. Public Survey

Public participation for the update of the 2018 Connecticut HMP was enabled through an internet-based survey. The survey focused on soliciting input from the public on local mitigation activities and strategies. The survey was opened and posted online in May 2018 and closed in July 2018. The full report on survey responses is below, with long-form responses entered by respondents following the report.

Q1 Are you responding as a resident or as a representative of a state, municipal, or other organization?Note: you are encouraged to complete the survey more than once if you wish to respond both as a resident and a representative of an organization.

Answered: 40 Skipped: 1



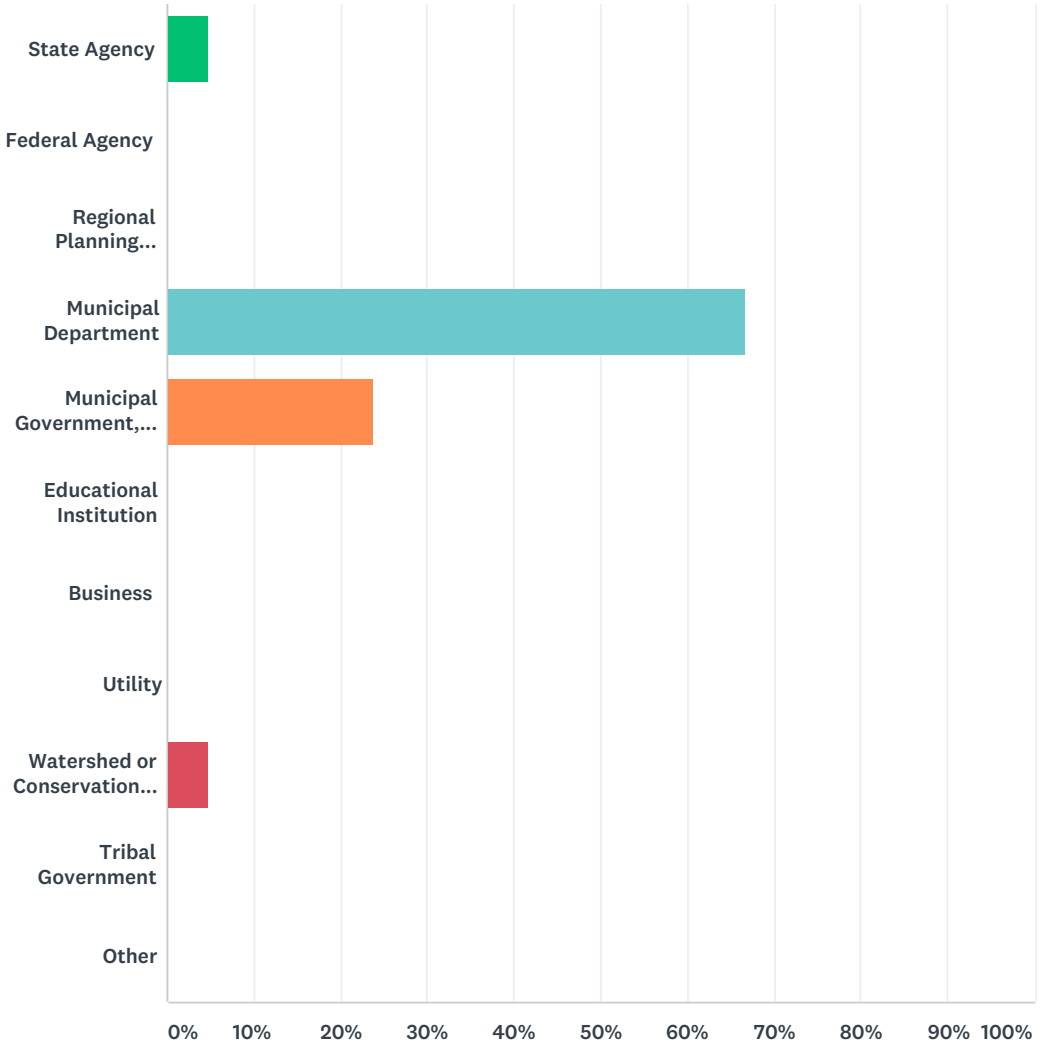
ANSWER CHOICES	RESPONSES	
Resident	50.00%	20
State Agency, Municipality, or Organization	50.00%	20
Total Respondents: 40		

Q2 If you are responding as a resident, please enter your five-digit zip code.

Answered: 21 Skipped: 20

Q3 If you are responding as a representative of a state agency, municipalty, or organization, please select one of the following.

Answered: 21 Skipped: 20

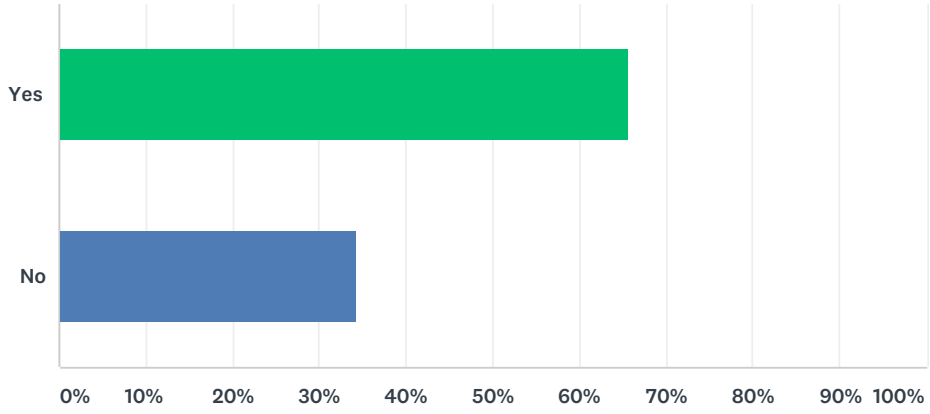


ANSWER CHOICES	RESPONSES	
State Agency	4.76%	1
Federal Agency	0.00%	0
Regional Planning Agency/Council of Government	0.00%	0
Municipal Department	66.67%	14
Municipal Government, Board, or Commission	23.81%	5
Educational Institution	0.00%	0
Business	0.00%	0
Utility	0.00%	0
Watershed or Conservation Organization	4.76%	1

Tribal Government	0.00%	0
Other	0.00%	0
Total Respondents: 21		

Q4 Were you aware that Connecticut maintains a statewide Hazard Mitigation Plan?

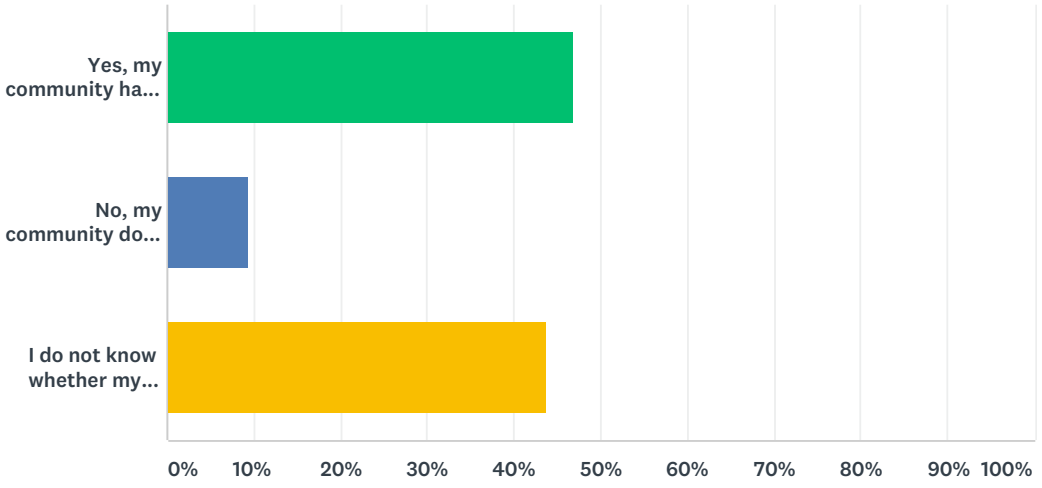
Answered: 32 Skipped: 9



ANSWER CHOICES	RESPONSES	
Yes	65.63%	21
No	34.38%	11
TOTAL		32

Q5 Many communities have local hazard mitigation plans that are distinct from various emergency operations plans.Does your community have a local hazard mitigation plan?

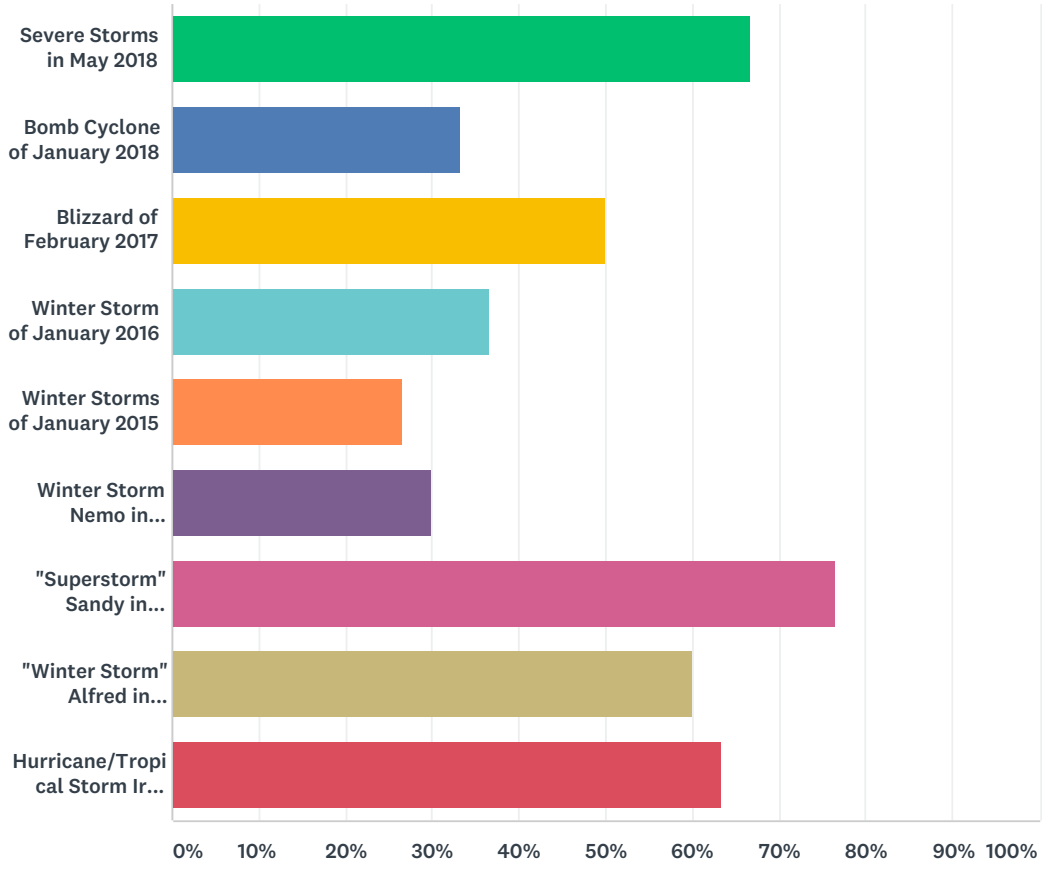
Answered: 32 Skipped: 9



ANSWER CHOICES	RESPONSES	
Yes, my community has a hazard mitigation plan	46.88%	15
No, my community does not have a hazard mitigation plan	9.38%	3
I do not know whether my community has a hazard mitigation plan	43.75%	14
TOTAL		32

Q6 Which recent events have made you more aware of the danger of natural hazards?

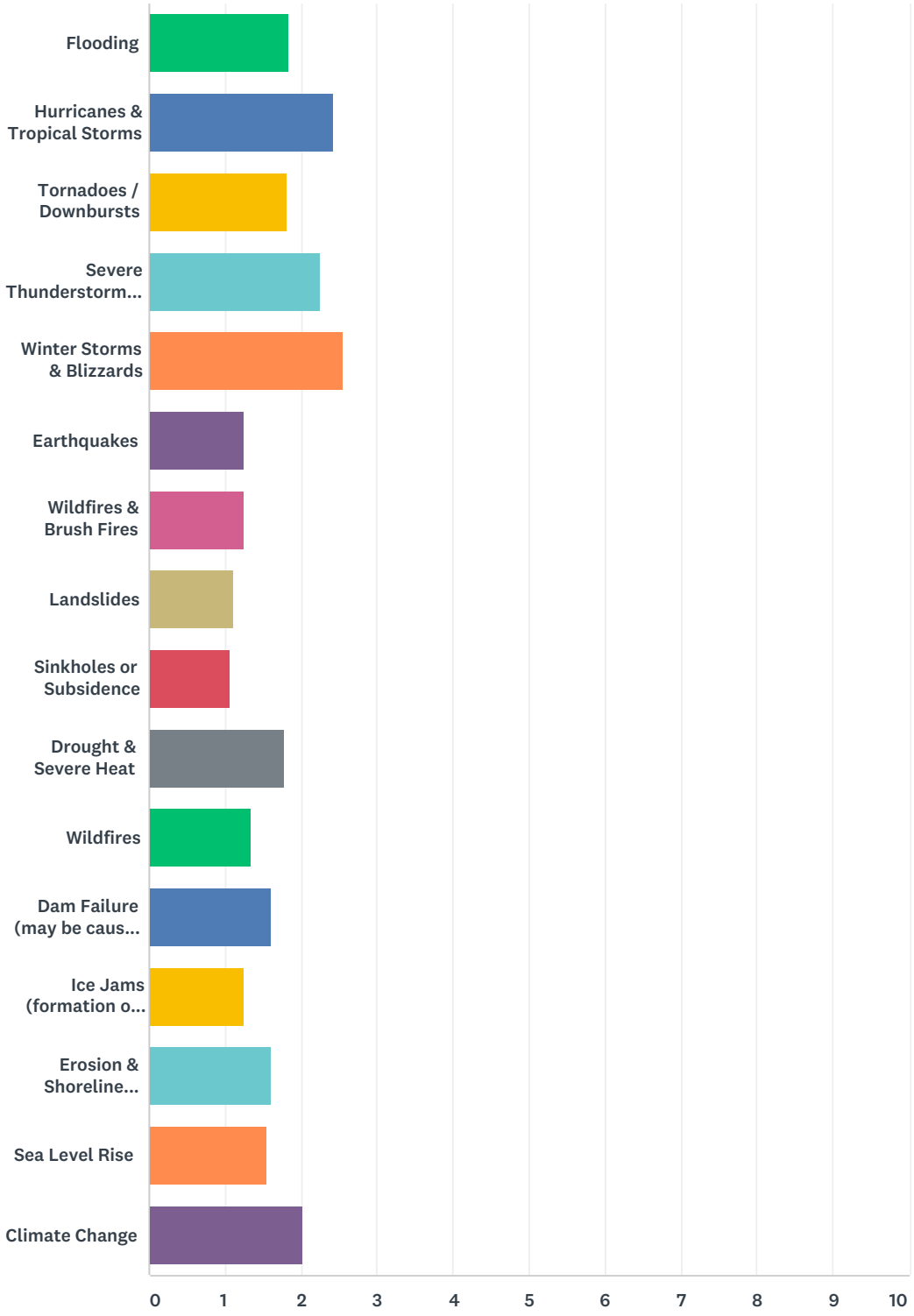
Answered: 30 Skipped: 11



ANSWER CHOICES	RESPONSES	
Severe Storms in May 2018	66.67%	20
Bomb Cyclone of January 2018	33.33%	10
Blizzard of February 2017	50.00%	15
Winter Storm of January 2016	36.67%	11
Winter Storms of January 2015	26.67%	8
Winter Storm Nemo in February 2013	30.00%	9
"Superstorm" Sandy in October 2012	76.67%	23
"Winter Storm" Alfred in October 2011	60.00%	18
Hurricane/Tropical Storm Irene in August 2011	63.33%	19
Total Respondents: 30		

Q7 How concerned are you about each of the following hazards impacting your home, business, or organization?

Answered: 31 Skipped: 10

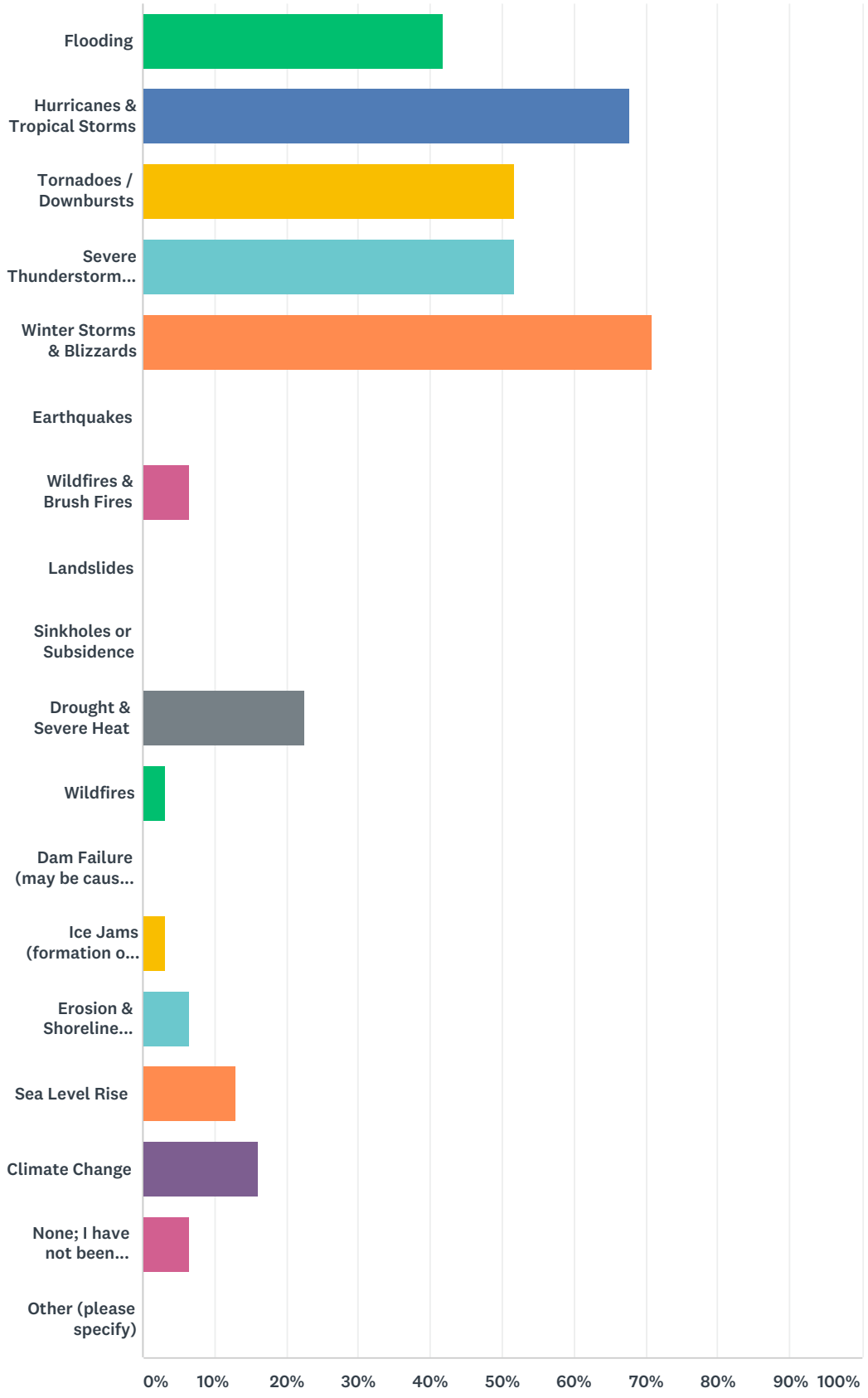


	LOW CONCERN	MODERATE CONCERN	HIGH CONCERN	TOTAL	WEIGHTED AVERAGE

Flooding	38.71% 12	38.71% 12	22.58% 7	31	1.84
Hurricanes & Tropical Storms	3.23% 1	51.61% 16	45.16% 14	31	2.42
Tornadoes / Downbursts	41.94% 13	35.48% 11	22.58% 7	31	1.81
Severe Thunderstorms (including hail & lightning)	12.90% 4	48.39% 15	38.71% 12	31	2.26
Winter Storms & Blizzards	3.23% 1	38.71% 12	58.06% 18	31	2.55
Earthquakes	77.42% 24	19.35% 6	3.23% 1	31	1.26
Wildfires & Brush Fires	77.42% 24	19.35% 6	3.23% 1	31	1.26
Landslides	90.32% 28	9.68% 3	0.00% 0	31	1.10
Sinkholes or Subsidence	93.33% 28	6.67% 2	0.00% 0	30	1.07
Drought & Severe Heat	30.00% 9	63.33% 19	6.67% 2	30	1.77
Wildfires	73.33% 22	20.00% 6	6.67% 2	30	1.33
Dam Failure (may be caused by other hazards)	54.84% 17	29.03% 9	16.13% 5	31	1.61
Ice Jams (formation of ice dams that cause flooding)	77.42% 24	19.35% 6	3.23% 1	31	1.26
Erosion & Shoreline Change	61.29% 19	16.13% 5	22.58% 7	31	1.61
Sea Level Rise	67.74% 21	9.68% 3	22.58% 7	31	1.55
Climate Change	36.67% 11	23.33% 7	40.00% 12	30	2.03

Q8 Which hazards have impacted your home, business, or organization?

Answered: 31 Skipped: 10



ANSWER CHOICES	RESPONSES	
Flooding	41.94%	13

Hurricanes & Tropical Storms	67.74%	21
Tornadoes / Downbursts	51.61%	16
Severe Thunderstorms (including hail & lightning)	51.61%	16
Winter Storms & Blizzards	70.97%	22
Earthquakes	0.00%	0
Wildfires & Brush Fires	6.45%	2
Landslides	0.00%	0
Sinkholes or Subsidence	0.00%	0
Drought & Severe Heat	22.58%	7
Wildfires	3.23%	1
Dam Failure (may be caused by other hazards)	0.00%	0
Ice Jams (formation of ice dams that cause flooding)	3.23%	1
Erosion & Shoreline Change	6.45%	2
Sea Level Rise	12.90%	4
Climate Change	16.13%	5
None; I have not been impacted	6.45%	2
Other (please specify)	0.00%	0
Total Respondents: 31		

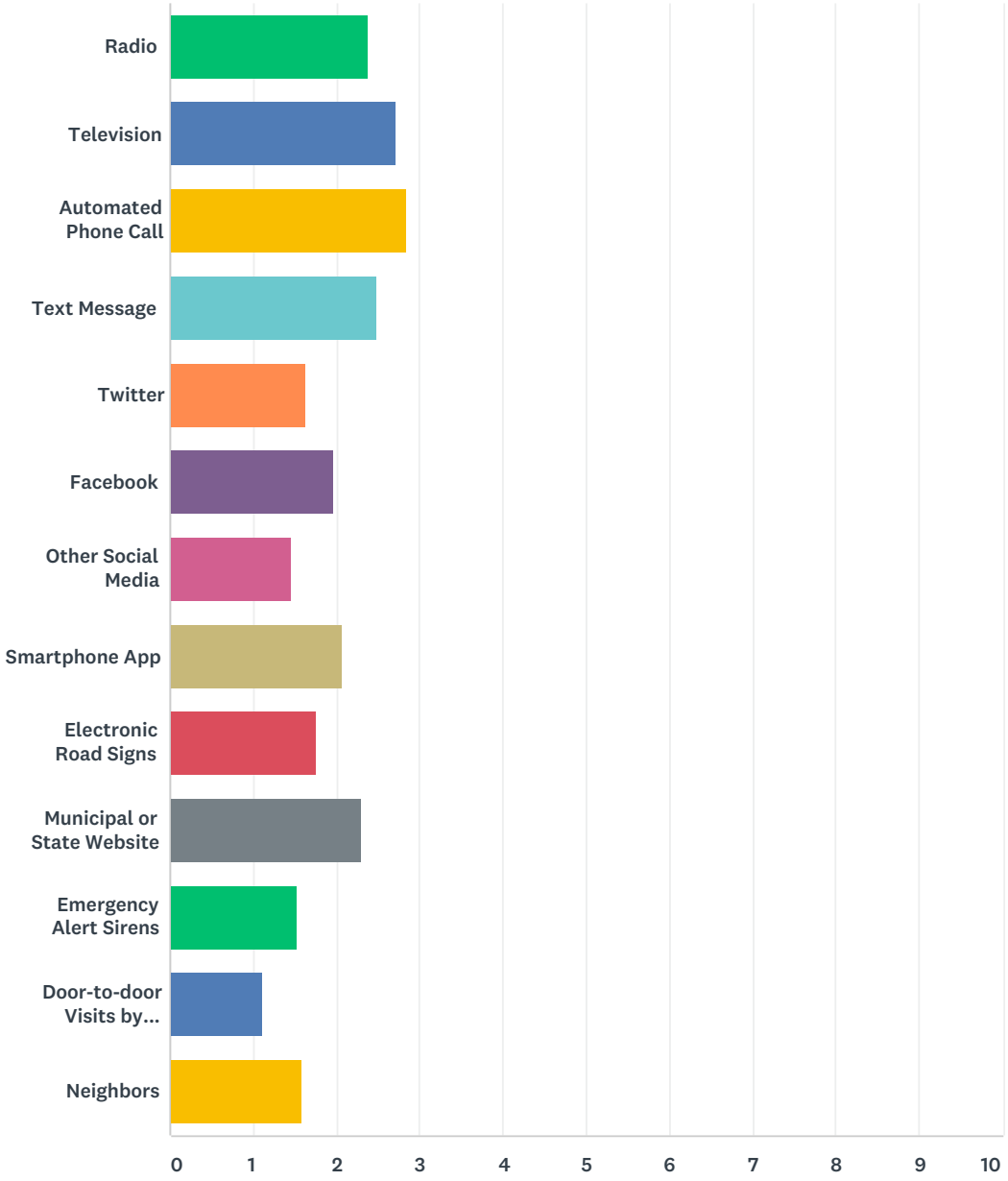
Q9 Are any specific areas of your community vulnerable to any of the above hazards? If so, please list them by location. Please use addresses, street intersections, village or neighborhood names, or landmarks to describe locations. For each answer, please include town name, at a minimum.

Answered: 12 Skipped: 29

ANSWER CHOICES	RESPONSES	
Location 1	100.00%	12
Location 2	66.67%	8
Location 3	50.00%	6
Location 4	25.00%	3
Location 5	25.00%	3
Additional Locations	8.33%	1

Q10 How do you receive alerts and information about natural hazards?

Answered: 31 Skipped: 10

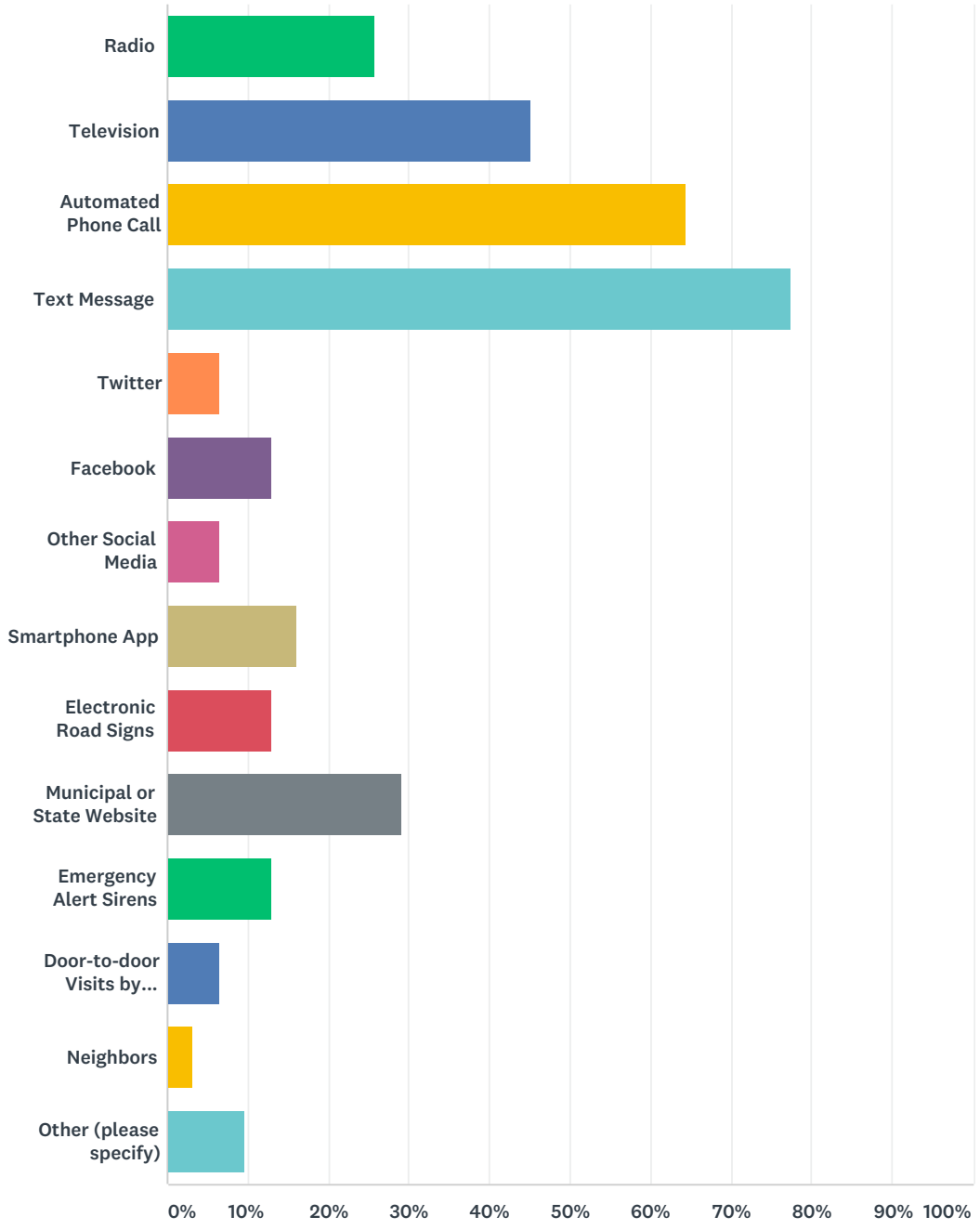


	NEVER	OCCASIONALLY	FREQUENTLY	ALWAYS	TOTAL	WEIGHTED AVERAGE
Radio	13.79% 4	44.83% 13	31.03% 9	10.34% 3	29	2.38
Television	9.68% 3	32.26% 10	35.48% 11	22.58% 7	31	2.71
Automated Phone Call	6.45% 2	35.48% 11	25.81% 8	32.26% 10	31	2.84
Text Message	20.00% 6	33.33% 10	23.33% 7	23.33% 7	30	2.50

Twitter	71.43% 20	3.57% 1	14.29% 4	10.71% 3	28	1.64
Facebook	44.83% 13	24.14% 7	20.69% 6	10.34% 3	29	1.97
Other Social Media	69.23% 18	15.38% 4	15.38% 4	0.00% 0	26	1.46
Smartphone App	44.83% 13	20.69% 6	17.24% 5	17.24% 5	29	2.07
Electronic Road Signs	31.03% 9	62.07% 18	6.90% 2	0.00% 0	29	1.76
Municipal or State Website	31.03% 9	24.14% 7	27.59% 8	17.24% 5	29	2.31
Emergency Alert Sirens	56.67% 17	36.67% 11	3.33% 1	3.33% 1	30	1.53
Door-to-door Visits by Officials	89.29% 25	10.71% 3	0.00% 0	0.00% 0	28	1.11
Neighbors	55.17% 16	31.03% 9	13.79% 4	0.00% 0	29	1.59

Q11 Which of the above are your preferred method of receiving information? Note: your preferred method may not be one you currently use frequently.

Answered: 31 Skipped: 10

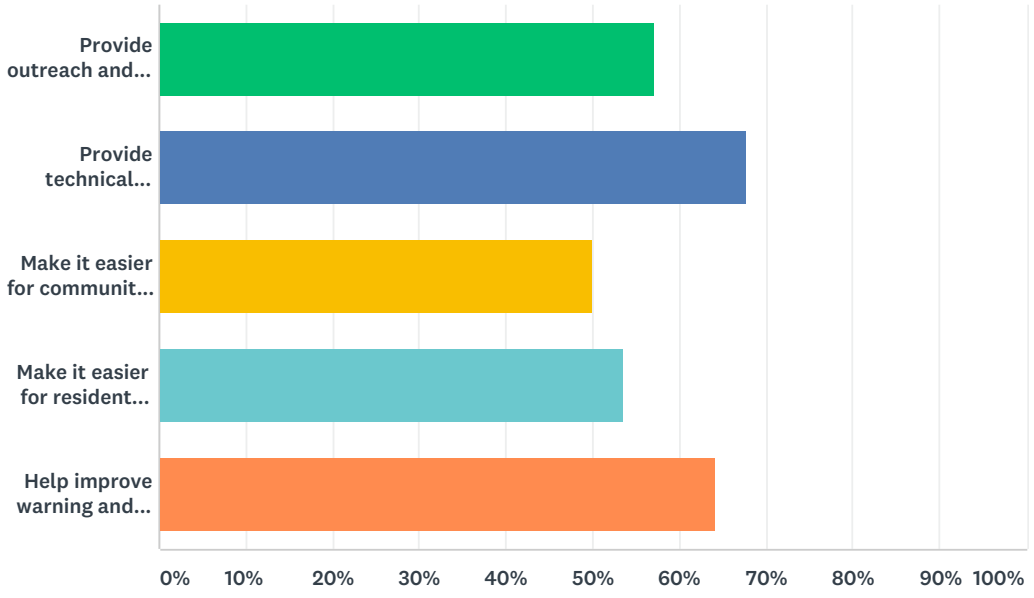


ANSWER CHOICES	RESPONSES	
Radio	25.81%	8
Television	45.16%	14
Automated Phone Call	64.52%	20

Text Message	77.42%	24
Twitter	6.45%	2
Facebook	12.90%	4
Other Social Media	6.45%	2
Smartphone App	16.13%	5
Electronic Road Signs	12.90%	4
Municipal or State Website	29.03%	9
Emergency Alert Sirens	12.90%	4
Door-to-door Visits by Officials	6.45%	2
Neighbors	3.23%	1
Other (please specify)	9.68%	3
Total Respondents: 31		

Q12 What are the most important things that the State of Connecticut can do to help communities be prepared for a disaster, and become more resilient over time?

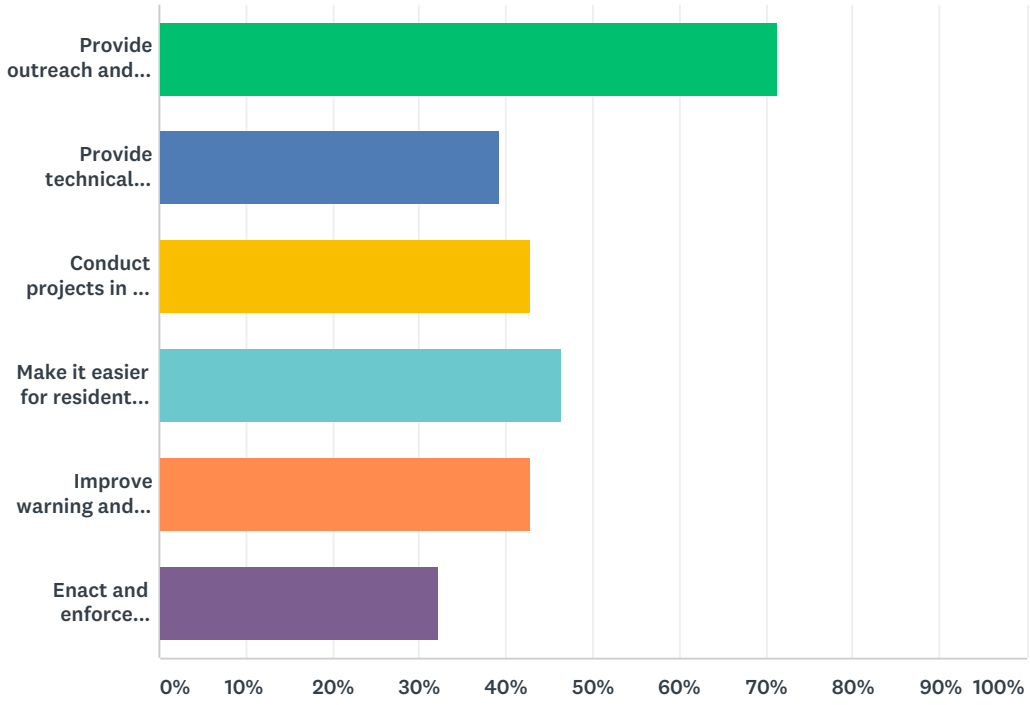
Answered: 28 Skipped: 13



ANSWER CHOICES	RESPONSES	
Provide outreach and education to residents, businesses, and organizations to help them understand risks and be prepared	57.14%	16
Provide technical assistance to residents, businesses, and organizations to help them reduce losses from hazards and disasters	67.86%	19
Make it easier for communities to provide this education and technical assistance	50.00%	14
Make it easier for residents, businesses, and organizations to take their own actions to become more resilient to disasters	53.57%	15
Help improve warning and response systems to improve disaster management	64.29%	18
Total Respondents: 28		

Q13 What are the most important things that your community can do to help its residents or your organization be prepared for a disaster, and become more resilient over time?

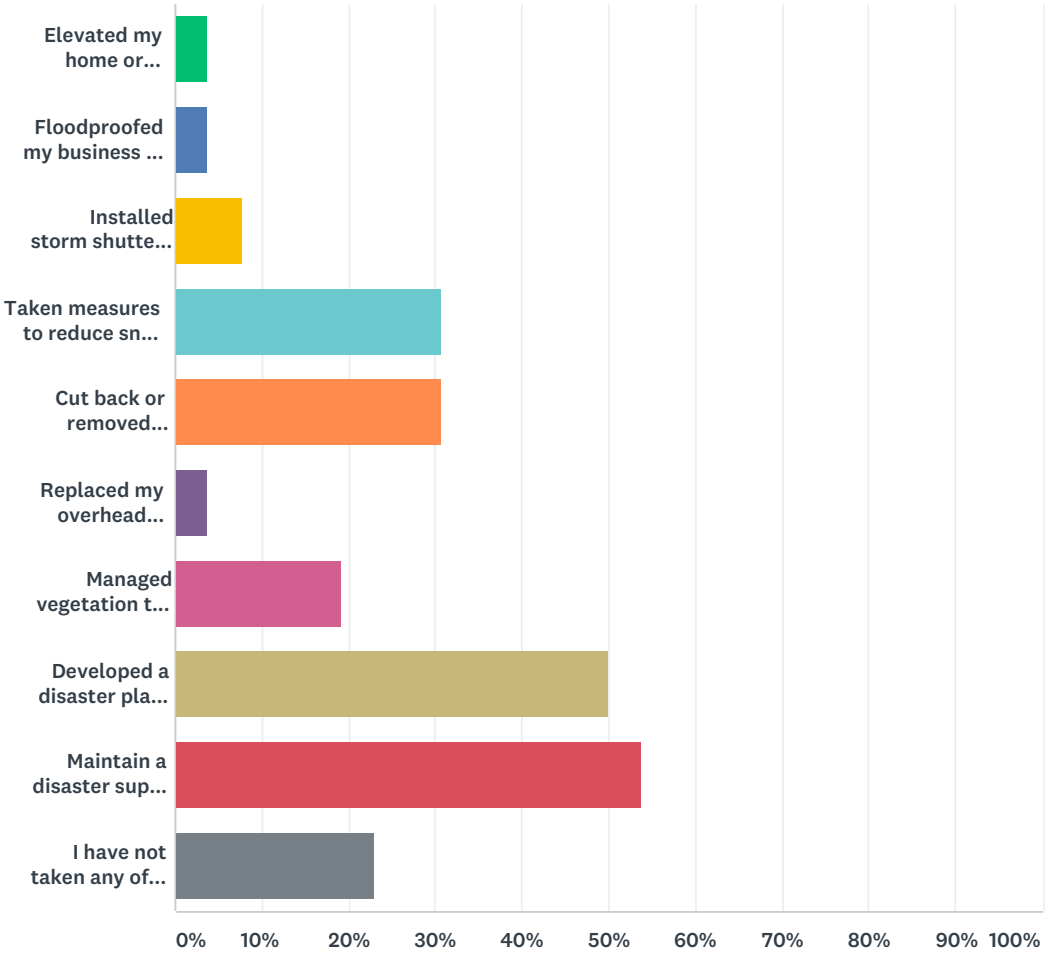
Answered: 28 Skipped: 13



ANSWER CHOICES	RESPONSES	
Provide outreach and education to residents, businesses, and organizations to help them understand risks and be prepared	71.43%	20
Provide technical assistance to residents, businesses, and organizations to help them reduce losses from hazards and disasters	39.29%	11
Conduct projects in the community, such as drainage and flood control projects, to mitigate for hazards and minimize impacts from disasters	42.86%	12
Make it easier for residents, businesses, and organizations to take their own actions to mitigate for hazards and become more resilient to disasters	46.43%	13
Improve warning and response systems to improve disaster management	42.86%	12
Enact and enforce regulations, codes, and ordinances such as zoning regulations and building codes	32.14%	9
Total Respondents: 28		

Q14 Have you taken any actions to reduce the risk or vulnerability to your family, home, business or organization?

Answered: 26 Skipped: 15



ANSWER CHOICES	RESPONSES	
Elevated my home or business to reduce flood damage	3.85%	1
Floodproofed my business to reduce flood damage	3.85%	1
Installed storm shutters or structural/roof braces to reduce wind damage	7.69%	2
Taken measures to reduce snow build-up on roofs	30.77%	8
Cut back or removed vegetation from my overhead utility lines or roof	30.77%	8
Replaced my overhead utility lines with underground lines	3.85%	1
Managed vegetation to reduce risk of wildfire reaching my home or business	19.23%	5
Developed a disaster plan for my family, home, or business	50.00%	13
Maintain a disaster supply kit for my family, home, or business	53.85%	14
I have not taken any of these actions	23.08%	6

Total Respondents: 26	

Q15 If you could choose one action that could be taken in the State of Connecticut to reduce its vulnerability to hazards and the disasters associated with these hazards, what would it be?

Answered: 17 Skipped: 24

Q16 Please provide any additional comments or questions to be addressed as the State updates its hazard mitigation plan.

Answered: 7 Skipped: 34

Q17 If you wish to be notified of the progress in updating the Connecticut Hazard Mitigation Plan, please provide your name and email address.

Answered: 11 Skipped: 30

ANSWER CHOICES	RESPONSES	
Name	100.00%	11
Email Address	100.00%	11

Long-Form Responses to Public Survey

Q3: If you are responding as a representative of a state agency, municipality, or organization, please enter the name of the agency, municipality, or organization below.

1. Town of Vernon
2. Town of Easton
3. City of New London
4. Meriden
5. South Windsor Office of Emergency Management
6. Town of Barkhamsted
7. Connecticut Forest & Park Association
8. Town of Old Lyme
9. Town of New Canaan
10. Westbrook Emergency Management
11. Town of Wilton
12. Town of Stratford
13. Fairfield Fire Dept.
14. Town of Columbia
15. Westport Weston Health District

Q9: Are any specific areas of your community vulnerable to any of the above hazards? If so, please list them by location. Please use addresses, street intersections, village or neighborhood names, or landmarks to describe locations. For each answer, please include town name, at a minimum.

1. Canton Wastewater treatment plant
2. West Main Street, Vernon, CT 06066
3. South Park Avenue to Merritt Pkwy below Easton Dam
4. Salmon Brook Street
5. Downtown Meriden
6. CT River Front/Goodspeed Area
7. Old Mail Trail, Westbrook
8. Beaver Dam Located in Stratford/ Shelton Line
9. 14 Windwood Rd. Brookfield Ct 06804
10. Milford Coastline - Roads - access points and State Routes
11. Middle Beach Road
12. Flooding in Seymour on the Housatonic River south of the Stevenson Dam in Monroe.

Q11: Which of the above are your preferred method of receiving information? Other:

1. Emails
2. Everbridge

3. I found the recent Alert for the May 2018 Tornado to be most effective. I was able to pull car off the highway and get to safe shelter in ample time . I would like to see a Bill calling for Automobile Manufacturers to include satellite weather availability including dopler radar and

Q12: What are the most important things that the State of Connecticut can do to help communities be prepared for a disaster, and become more resilient over time? Other:

1. Microgrids for emergency generation
2. Mandate elected officials, and department heads have specific emergency training and education
3. Bury electrical wires underground!
4. Consumer education is critical along with assisting in removal of trees
5. Why does Connecticut not have Tornado sirens?

Q13: What are the most important things that your community can do to help its residents or your organization be prepared for a disaster, and become more resilient over time? Other:

1. Provide clear information to residents

Q14: Have you taken any actions to reduce the risk or vulnerability to your family, home, business or organization? Other:

2. Purchase flood and earthquake policies

Q15: If you could choose one action that could be taken in the State of Connecticut to reduce its vulnerability to hazards and the disasters associated with these hazards, what would it be?

3. Better educate the public to the risk and inevitable occurrence or natural hazards. Focus on high schools, and local public programs for adults.
4. Microgrids
5. Assist with hazard mitigation grants.
6. Educate Public to be self-sufficient for a period of time during and after a disaster
7. Utilities to be more resilient.
8. Increase participation of residents in CT Alert. Encourage shelter in place.
9. Reduce taxes
10. Clear at least 30 feet of debris away from all state roads
11. funding for locally delivered programs
12. Bury electrical wires
13. Educate consumers on disaster mitigation and how to protect their homes.
14. Improve tree clearance to power lines.

15. Stream line the process and provide funding for Cities to become more resilient and to help citizens understand and help themselves become more resilient.
16. Start a statewide initiative to put the electrical grid underground and away from trees. Our infrastructure sticks. We need to put all utilities underground to prevent the elements from causing high distress in daily life activities.
17. Move critical power lines underground.
18. Install tornado/severe weather sirens throughout the state. It's irresponsible that this hasn't already been done. Many areas of this state have similar or higher chance of encountering severe weather that other parts of the country where sirens have existed for decades.
19. Inform its residents that they should be more proactive and to not assume that government will be able to respond to their every concern.

Q16: Please provide any additional comments or questions to be addressed as the State updates its hazard mitigation plan.

1. Educating the public with respect to preparedness measures, self support and response skills would have the broadest improvement on our ability to address hazards.
2. Inclusion of systems for community emergency power generation
3. Although we acknowledge that removal of dead, decaying, or diseased trees or limbs may be necessary, we ask you to do whatever you can to protect healthy trees that provide many ongoing benefits that balance and sometimes counter the potential hazards that happen periodically.
4. The hazard mitigation plan should include more about drought and wildfire response and have an overall focus on extreme weather events using the last worst storm a bench mark that will be surpassed
5. Enhanced requirements by Eversource to restoration plans to include no more than 3-5 days without power regardless off the process.
6. Educate, educate and consumer information on how to protect themselves and their property.
7. I want there to be a discussion on Geo-Engineering and how it's affected Climate Change . Senator Murphy had declined all inquiries with this matter. We need to educate the public on things like Solar Radiation Management and Patented Chemical Ice Nucleation . It's been going on for years over our heads with no regard to its effects on the population. Enough is enough. There are many of us who want answers . Rhode Island has banned Geo-Engineering from taking place in its Skies . Connecticut needs to step up and do the same. This insanity has to stop before the Biosphere implodes . It's already happening .

Hazard Identification and Risk Assessment Appendix 2

DECLARED DISASTERS PRIOR TO 2013

HAZARDS REMOVED FROM ANALYSIS

NCEI STORM EVENTS

NFIP STATISTICS

REPETITIVE & SEVERE REPETITIVE LOSS PROPERTIES

HAZUS-MH: GLOBAL SUMMARY REPORTS

LOSS ESTIMATES BY MUNICIPALITY

LOSS ESTIMATES BY STATE FACILITY

Declared Disasters prior to 2013

DR-4106 (EM-3361): Winter Storm Nemo occurred February 8th through February 11th 2013 and hit much of the Northeast from New York to Maine, dumping around three feet of snow on Connecticut. Some called this the worst blizzard since 1888. Hamden, CT received 40 inches of snow, while the coast received about two feet of snow. It took some towns days to dig out their streets. The storm left hundreds of thousands without power throughout New England, and storm surge caused beach erosion and flooding along the coast. Roads were closed throughout the state, and 38,000 customers lost power. There were reportedly five weather related deaths in Connecticut.[1]

DR-4087 (EM-3353): Hurricane Sandy emergency declaration on October 28, 2012, followed by a disaster declaration on October 30, 2012. Coastal residents and business owners suffered from storm surge and its damage, and more than 360,000 people were evacuated from low-lying areas along the coast from Old Saybrook to Fairfield. At least three people died in coastal towns. Inland cities and towns saw widespread power failures, with more than 600,000 people without power. A travel ban was issued on state highways, and commuter rail and Amtrak service was canceled.[2]

DR-4046 (EM-3342): 2011 October 29-30 Storm Alfred hit the entire Northeast, but Connecticut was hit the hardest.[3] Wind and snow knocked down five times more trees than Tropical Storm Irene.[4] Although shoreline towns and cities largely escaped damage, upstate Connecticut was hard-hit. Significant portions of Litchfield, northern Fairfield and northern Hartford counties lost power, totaling about 880,000 people. It took more than a week to fully restore power to customers.[5]

DR-4023 (EM-3331): Tropical Storm Irene swept across the east coast, and hit Connecticut on August 28, 2011. Maximum wind gusts were 66 mph, while the average wind gust for the entire state was 52.3 mph. About "2-3 percent of trees within 50 feet of the center line of state roads were felled by the storm". This storm killed two Connecticut residents and left hundreds of thousands of people without power. "At its peak, the tropical storm saw close to a million utility customers in the dark." Some of whom were left in the dark for more than a week. The storm was particularly devastating along the coastal towns on the Long Island Sound, as storm surge occurred during high tide. However, the storm brought trees and power lines down throughout the state.[6]

DR-1958 This 2011 winter storm resulted in as much as two and a half feet of snow, as areas in interior southern CT saw accumulations up to 30 inches in 12 hours. Fairfield and New Haven Counties were hardest hit.[7] The storm contributed to almost 60 inches of snow

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[1] The Weather Channel. The Latest: Nemo's Impact State by State. 02//11/2013
[2] The New York Times. State-by-State Guide to Hurricane Sandy. 10/29/2010
[3] The Huffington Post. October snowstorm outages remain, thousands in Connecticut enter second week without power. Dave Colline and Stephen Singer. 11/7/211.
[4] The Courant. Extreme Weather of 2011: October Snowstorm. Edmund Mahony. 12/28/2011.
[5] The CT Post. Damage from storm 'five times worse' than Irene. 10/30/2011.
[6] CT News Junkie. Tropical Storm Irene, one year later. Hugh McQuaid 8/27/2012.
[7] National Weather Service Forecast Office New York, NY. January 11-12th 2011 Heavy Snow.

in January, which broke the record of 45 inches in 1945. Public transportation was suspended and airports were closed, and there were several travel bans throughout the state.[8,9]

DR-1904 During the month of March three major rain events that occurred on March 12, 2010, March 23, 2010 and March 29-30, 2010 in combination caused severe flooding throughout Connecticut. The hardest hit area of the state impacted by flooding was southern Connecticut, specifically southeastern Connecticut including New London County. On April 9, 2010 Governor M. Jodi Rell requested a major disaster declaration from President Obama. The request was made for Fairfield and New London Counties. On April 12, 2010 Governor Rell amended the April 9, 2010 request a major disaster declaration for Middlesex, New Haven and Windham Counties. A more detailed description of these events can be found in the Flood Section.

DR-1700 The floods of April 2007, also known as the 2007 April Nor'easter, was a tropical low-pressure system formed in the Atlantic Ocean off the Carolinas on Sunday, April 15, 2007 and moved slowly northward towards New England. In anticipation of this developing storm, the National Weather Service (NWS) had issued flood watches on Saturday, April 14, for all of Connecticut, and coastal flood warnings for coastal western Connecticut on April 15 and 16. High wind warnings were also posted for southeastern coastal Connecticut on April 15. Portions of Connecticut received up to eight inches of rain within a twenty-four hour period. Wind gusts reached 60 miles per hour and downed numerous trees and power lines. Over 44,000 customers lost electricity Monday, April 16th.[10] Federal Disaster Aid funding issued by FEMA to Connecticut for this disaster totaled over $6.4 million dollars. More detailed information on this event can be found in the Flood Section.

DR-1619 A Presidentially Declared Disaster was issued for the events of October 14-15, 2005. FEMA designated the counties of Litchfield, New London, Tolland, and Windham as being affected by the floods. FEMA amended the disaster declaration to Hartford County on February 9, 2006. All Counties of the state were eligible to apply for assistance under the Hazard Mitigation Grant Program. More detailed information can be found in the Flood Section.

DR-1302 A major Disaster Declaration was declared on September 23, 1999 for Tropical Storm Floyd. This storm impacted almost the entire east coast, with hurricane warnings being issued from Florida to Massachusetts. In Connecticut, flooding was significant with up to 15 inches in the Danbury area and the Connecticut River flooded in portions of Hartford. Total damage was approximately $2 million.[11]

DR-1092 The January 1996 blizzard, caused by cold air from Canada colliding with warmer winds from the Gulf of Mexico, resulted in an average of 12 to 24 inches of snowfall in Connecticut. Estimated damages in Litchfield County were $40,000.[12,13]

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[8] NBC Connecticut. Record Snowfall – 4 feet, 11 inches. LeAnne Gendreau. 2/27/2011.
[9] NBC Connecticut.Massive Snowstorm Cripples State. LeAnne Gendreau. 2/12/2011.
[10] Source: USGS publication Flood of April 2007 and Flood –Frequency Estimates At Streamflow-Gaging Stations in Western Connecticut; Scientific Investigations Report 2009-5108.
[11] http://www.wxedge.com/articles/20120202this_week_in_wx-september_17th_1999:_floyd
[12] http://www.wxedge.com/articles/20140107blizzard_of_1996_january_6-8
[13] http://www.history.com/this-day-in-history/blizzard-of-1996-begins

DR-972 This winter storm produced winds up to 55 mph, and recorded a high tide in Bridgeport, CT of 10.16 feet, the third highest record in the Long Island Sound when the storm hit. The storm destroyed 26 homes and killed three people.[14]

DR-916 In August 1991 Hurricane Bob pummeled Rhode Island, but Connecticut was affected as well. Hurricane force winds were recorded as far west as the Connecticut River, as peak winds up to 125 mph were recorded in Wethersfield, CT. Bob was also responsible for six deaths in Connecticut.[15,16]

DR-837 On July 10, 1989, a tornado cut a path through western Connecticut, from Salisbury to New Haven in less than one hour. Two people were killed, 110 people were injured and sixty-seven homes were destroyed. Damages totaled $125 million (1989 dollars), and a Presidential Disaster Declaration was issued (FEMA-837-DR-CT).

DR-747 In September 1985 Hurricane Gloria, a category 2 hurricane, made landfall in Westport. It was the strongest storm to hit Connecticut in more than 30 years when it made landfall. "Strong winds and torrential rains caused heavy damage to homes and businesses along the shore, particularly in a swath from Westport to Milford."[17] Peak surge at New London Harbor was about 5.8 feet. "Had this occurred at high tide, flooding would have been much greater."[18]

DR-711 Preceded by heavy precipitation between February and April, this May 1984 storm caused severe flooding in Connecticut. The CT River in Hartford was 2 feet over the major flood threshold and the Housatonic River crested at 11 feet over flood stage.[19]

DR-661 This June 1982 storm caused massive flooding throughout Connecticut, as three to 16 inches of rain fell across the state. Flooding reached the 200 and 500 year intervals in south-central Connecticut. Damages were estimated at more than $276 million and over 15,000 homes and 400 commercial and industrial established were damaged. Additionally, state and local roads, bridges, dams, and utility infrastructure were damaged. Eleven deaths were recorded.[20] More detailed information on this disaster can be found in the Flood Section.

DR-608 This tornado hit Windsor, Windsor Locks and Suffield in October 1979, and took apart homes and schools causing $200 million in damage. The eastern part of Bradley Airport was destroyed, in addition to the Air National Guard base and the New England Air Museum. Three people lost their lives and 500 were injured. At that time, the tornado was ranked as the 6th most costly in the United States.[21,22]

DR-42 In 1955 two hurricanes impacted Connecticut within a week apart. On August 11-12, Hurricane Connie (downgraded to a tropical storm when it passed by New England) produced four to six inches of rain throughout Connecticut. On August 18-20, 1955 Hurricane Diane (also downgraded to a tropical storm by the time it reached New England) struck and produced another ten to twenty inches of rain. Severe flooding occurred

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[14] http://www.ct.gov/deep/cwp/view.asp?A=2705&Q=475724
[15] http://www.ct.gov/dEep/cwp/view.asp?a=2705&q=475720&deepNav_GID=2022
[16] http://www.erh.noaa.gov/box/hurricane/hurricaneBob.shtml
[17] http://www.ctpost.com/news/article/Connecticut-s-worst-hurricanes-3984238.php
[18] http://www.ct.gov/dEep/cwp/view.asp?a=2705&q=475720&deepNav_GID=2022
[19] http://www.wxedge.com/articles/20120202this_week_in_wx-may_1984:_flooding
[20] http://www.ct.gov/dEep/cwp/view.asp?a=2705&Q=470890&deepNav_GID=2022
[21] http://www.wtnh.com/dpp/weather/severe_weather/summer-extremes-tornadoes
[22] http://www.nbcconnecticut.com/news/local/Remembering-The-Windsor-and-Windsor-Locks-Tornado-30-Years-Later-62410147.html

throughout Connecticut as a result of these two back-to-back storms and included extreme damage such as road/bridge washouts, loss of drinking water, severe damage to utility and communication infrastructures. These two events resulted in 103 fatalities, 86,000 unemployed, over 1,000 families left homeless, 2,300 requiring temporary shelter, and at least $1.5 billion in damages (1955 dollars).

DR-25 The next hurricane to strike Connecticut occurred on August 31, 1954. Hurricane Carol (naming of hurricanes began in 1950) tracked across the southeastern corner of the State. It was reported that 48 people lost their lives and property damages and losses totaled at least one billion dollars (in 1954 dollars) for the Northeast.

EM-3266 February 11-12, 2006 Nor'easter – Connecticut received record snowfall in parts of the state from this storm (second largest snowfall recorded since 1906)[23], and received a Presidential Emergency Declaration. This storm is also known as the North American Blizzard of 2006. Governor M. Jodi Rell ordered state highways shut down to help facilitate efficient snow removal by State Department of Transportation snow removal crews.

EM-3246 Hurricane Katrina affected areas along the east coast as well, and on September 14, 2005 President Bush declared a state of emergency in Connecticut to help people evacuate from their homes. Connecticut was one of 38 states to receive an emergency declaration.[24]

EM-3200 January 22-23, 2005 Blizzard - Connecticut received a Presidential Emergency Declaration for this storm event. NOAA analyzed this storm and ranked it a Category 4 – Crippling event on its Northeast Snowfall Impact Scale.

EM-3192 December 5-7, 2003 - Heavy snowfall amounts were recorded in parts of Connecticut including as much as twenty inches in Windham County, nineteen inches in Hartford County, and eighteen inches in Fairfield, New London, and Tolland Counties. This event received a Presidential Emergency Declaration.

EM-3176 An emergency declaration was declared on March 11, 2003 for all counties in Connecticut to cover costs of snow removal in the state due to the February 2003 storm.[25] Also known as the "President's Day Blizzard", this storm hit several states as it moved up the east coast. New Haven received 18.5 inches of snow,[26] Darien and New Canaan measured the most snow at 20 inches and New Fairfield recorded two feet of snow.[27]

EM-3098: March 1993 Superstorm impacted a large area, from Florida all the way up through New England and as far west as Chicago.[28] In Connecticut, this blizzard left 2 dead, dozens injured, and 8 to 21 inches of snow. Bradley International Airport was closed for more than 19 hours, the longest closing since 1983 at the time.[29]

EM-3060: Blizzard of 1978 occurred on February 5, 1978, record snowfall amounts were recorded in several areas of Connecticut. The State of Connecticut was essentially shut

[23] http://en.wikipedia.org/wiki/North_American_blizzard_of_2006.
[24] http://www.fema.gov/news-release/2005/09/14/president-approves-emergency-declaration-connecticut
[25] http://www.fema.gov/news-release/2003/03/11/federal-funds-ordered-connecticut-snowstorm-recovery
[26] http://www.wxedge.com/articles/20130208is_it_2003_all_over_again
[27] http://localweatherjournal.blogspot.com/2013/02/this-weekend-marks-10th-anniversary-of.html
[28] http://www.stormsurge.noaa.gov/event_history.html
[29] http://www.courant.com/entertainment/hc-winter-storm031593,0,794678.story

down for three days when Governor Grasso ordered all roads closed except for emergency travel.[30]

[30] http://en.wikipedia.org/wiki/Northeastern_United_States_blizzard_of_1978.

Hazards Removed from Analysis

Tsunami

Tsunami – Also called seismic sea waves, tsunamis are a series of waves generated by seismic activity. Tsunamis are also popularly, but inaccurately, called tidal waves. When they reach shallow coastal regions, amplitudes may increase to several meters. The Pacific Ocean is particularly vulnerable to tsunamis.[31]

Hazard Profile

Tsunamis along the East Coast are very rare events. The majority of tsunamis occur in the Pacific Ocean where the "ring of fire" exists (a series of mountain chains, deep ocean trenches and island arcs subject to volcanic and earthquake activity)[32]. According to NOAA, "tsunamis generally are caused by earthquakes, less commonly by submarine landslides, infrequently by submarine volcanic eruptions, and very rarely by a large meteorite impact in the ocean[33]."

There is no record to date of a tsunami affecting Connecticut. The last documented case of a tsunami along the Atlantic coast induced by an earthquake occurred in Nova Scotia, Canada in 1929.

Potential Risk of a Tsunami in Connecticut

Since the waves are ocean born, the communities immediately along the Connecticut coastline would be affected. Due to the relative seismic stability of the Atlantic Ocean in comparison with the Pacific Ocean, Connecticut's geographic location and the protection provided to Connecticut's coastline by Long Island Sound, the chances of a tsunami affecting Connecticut are low.

Potential Future Vulnerability to a Tsunami

The most vulnerable coastal areas of Connecticut would be in New London County where communities could be impacted by a wave that skirts between Block Island and Long Island. The populations and land areas would be similar to those affected by a Category 1 hurricane. However, damages from a tsunami may be greater for immediate coastal locations than from a Category 1 hurricane. Since tsunamis present an extremely small risk of impacting Connecticut, no detailed analysis of possible populations and infrastructure at risk have been generated.

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[31] Definition is from the American Meteorological Society's Glossary of Meteorology. Website accessed on 6/23/09 at http://amsglossary.allenpress.com/glossary/search?p=1&query=tsunami.
[32] Source: NOAA website, http://wcatwc.arh.noaa.gov/tsunami2.htm.
[33] Information is from NOAA's webpage, *What Causes Tsunamis?* Located at http://wcatwc.arh.noaa.gov/tsunami2.htm.

NCEI Storm Events

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
7/12/1950	Middlesex County	0	0	$25,903	Tornado
7/14/1950	Fairfield County	0	3	$2,590,342	Tornado
8/20/1951	Tolland County	0	0	$240,105	Tornado
8/21/1951	Litchfield County	0	9	$2,401,048	Tornado
8/21/1951	Middlesex County	0	8	$2,401,048	Tornado
5/10/1954	Hartford County	0	0	$23,207	Tornado
5/10/1954	Tolland County	0	2	$232,072	Tornado
10/24/1955	Hartford County	0	0	$23,294	Tornado
10/24/1955	New Haven County	0	0	$23,294	Tornado
6/1/1956	Litchfield County	0	0	$0	Thunderstorm
7/14/1956	Windham County	0	0	$0	Thunderstorm
8/8/1956	Hartford County	0	0	$0	Thunderstorm
8/8/1956	Tolland County	0	0	$2,295	Tornado
9/14/1956	Fairfield County	0	0	$0	Thunderstorm
5/10/1957	Hartford County	0	0	$0	Thunderstorm
5/23/1957	New Haven County	0	0	$0	Thunderstorm
5/23/1957	New Haven County	0	0	$0	Thunderstorm
6/19/1957	Hartford County	0	0	$2,221,610	Tornado
6/30/1957	Fairfield County	0	0	$0	Thunderstorm
5/19/1958	Hartford County	0	0	$0	Thunderstorm
8/15/1958	Fairfield County	0	0	$21,601	Tornado
8/15/1958	Litchfield County	0	0	$0	Thunderstorm
8/21/1958	Litchfield County	0	0	$259	Tornado
9/7/1958	Tolland County	0	2	$2,160,112	Tornado
5/12/1959	Litchfield County	0	0	$21,453	Tornado
5/30/1959	Hartford County	0	0	$21,453	Tornado
8/27/1959	Tolland County	0	0	$0	Thunderstorm
8/29/1959	New Haven County	0	0	$257	Tornado
4/24/1960	Middlesex County	0	0	$0	Thunderstorm
6/3/1960	Tolland County	0	0	$0	Thunderstorm
7/3/1960	New Haven County	0	0	$0	Thunderstorm
8/30/1960	Hartford County	0	0	$0	Thunderstorm
8/30/1960	Middlesex County	0	0	$0	Thunderstorm
8/30/1960	Tolland County	0	0	$0	Thunderstorm
4/26/1961	Tolland County	0	0	$20,879	Tornado
6/10/1961	Hartford County	0	0	$0	Thunderstorm
7/3/1961	Fairfield County	0	0	$0	Thunderstorm
7/9/1961	Hartford County	0	0	$0	Thunderstorm
8/29/1961	Fairfield County	0	0	$0	Thunderstorm
8/29/1961	Fairfield County	0	0	$0	Thunderstorm
9/2/1961	Hartford County	0	0	$0	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
5/24/1962	Hartford County	0	5	$20,671,275	Tornado
5/24/1962	Litchfield County	0	0	$0	Thunderstorm
5/24/1962	New Haven County	1	45	$20,671,275	Tornado
6/18/1962	Hartford County	0	0	$0	Thunderstorm
6/18/1962	Litchfield County	0	0	$206,713	Tornado
6/18/1962	New Haven County	0	0	$0	Thunderstorm
6/18/1962	New Haven County	0	0	$0	Thunderstorm
6/19/1962	Litchfield County	0	0	$0	Thunderstorm
6/26/1962	Hartford County	0	0	$0	Thunderstorm
7/21/1962	New Haven County	0	0	$0	Thunderstorm
8/17/1962	Hartford County	0	0	$0	Thunderstorm
8/17/1962	Hartford County	0	0	$0	Thunderstorm
5/20/1963	Hartford County	0	0	$0	Thunderstorm
6/14/1963	Hartford County	0	0	$0	Thunderstorm
7/5/1963	New Haven County	0	0	$0	Thunderstorm
7/5/1963	New London County	0	0	$0	Thunderstorm
7/19/1963	Middlesex County	0	0	$20,401	Tornado
8/1/1963	Middlesex County	0	0	$0	Thunderstorm
8/11/1963	Hartford County	0	0	$0	Thunderstorm
8/11/1963	Litchfield County	0	0	$0	Thunderstorm
5/19/1964	Fairfield County	0	0	$0	Thunderstorm
6/10/1964	Hartford County	0	0	$0	Thunderstorm
6/10/1964	Hartford County	0	0	$0	Thunderstorm
6/10/1964	Hartford County	0	0	$0	Thunderstorm
5/17/1965	Litchfield County	0	0	$0	Thunderstorm
5/17/1965	Middlesex County	0	0	$0	Thunderstorm
5/17/1965	New Haven County	0	0	$0	Thunderstorm
5/17/1965	New Haven County	0	0	$0	Thunderstorm
8/19/1965	Tolland County	0	0	$198,182	Tornado
6/6/1966	Hartford County	0	0	$0	Thunderstorm
7/7/1966	Tolland County	0	0	$0	Thunderstorm
7/7/1966	Tolland County	0	0	$0	Thunderstorm
7/19/1966	Hartford County	0	0	$0	Thunderstorm
7/19/1966	Hartford County	0	0	$0	Thunderstorm
7/19/1966	Litchfield County	0	0	$0	Thunderstorm
8/11/1966	Litchfield County	0	0	$192,677	Tornado
8/9/1968	Fairfield County	0	0	$0	Tornado
8/9/1968	New Haven County	0	0	$0	Thunderstorm
8/9/1968	New Haven County	0	0	$0	Thunderstorm
8/17/1968	Tolland County	0	0	$179,389	Tornado
8/20/1968	Hartford County	0	0	$0	Thunderstorm
8/20/1968	Litchfield County	0	0	$17,939	Tornado

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
8/20/1968	New Haven County	0	0	$0	Thunderstorm
8/20/1968	Windham County	0	0	$0	Thunderstorm
5/29/1969	New London County	0	0	$0	Thunderstorm
5/29/1969	New London County	0	0	$0	Thunderstorm
6/20/1969	Hartford County	0	0	$0	Thunderstorm
6/20/1969	Hartford County	0	0	$0	Thunderstorm
6/20/1969	Tolland County	0	0	$0	Thunderstorm
7/17/1969	New Haven County	0	0	$0	Thunderstorm
8/16/1969	New Haven County	0	0	$0	Thunderstorm
7/25/1970	Litchfield County	0	0	$0	Thunderstorm
7/25/1970	Litchfield County	0	0	$0	Thunderstorm
8/28/1970	Hartford County	0	0	$0	Thunderstorm
10/3/1970	Hartford County	0	1	$160,895	Tornado
10/15/1970	Fairfield County	0	0	$0	Thunderstorm
6/8/1971	Fairfield County	0	0	$0	Thunderstorm
6/8/1971	Middlesex County	0	0	$0	Thunderstorm
6/8/1971	New Haven County	0	0	$0	Thunderstorm
6/8/1971	New London County	0	0	$0	Thunderstorm
6/8/1971	Windham County	0	0	$0	Thunderstorm
7/1/1971	New Haven County	0	0	$0	Thunderstorm
7/19/1971	Fairfield County	0	0	$154,141	Tornado
7/19/1971	New Haven County	0	0	$0	Thunderstorm
7/29/1971	New Haven County	0	2	$1,541,414	Tornado
8/11/1971	Hartford County	0	0	$0	Thunderstorm
10/6/1971	Tolland County	0	0	$0	Thunderstorm
7/8/1972	Windham County	0	0	$0	Thunderstorm
7/21/1972	Middlesex County	0	0	$14,935	Tornado
8/7/1972	Litchfield County	0	0	$1,493,475	Tornado
8/9/1972	Litchfield County	0	0	$149,347	Tornado
6/12/1973	Litchfield County	0	0	$169	Tornado
6/28/1973	Hartford County	0	1	$14,060	Tornado
6/29/1973	Litchfield County	0	0	$14,060	Tornado
7/5/1973	Fairfield County	0	0	$0	Thunderstorm
8/28/1973	Fairfield County	0	0	$0	Thunderstorm
8/28/1973	Fairfield County	0	0	$0	Thunderstorm
8/28/1973	Litchfield County	0	0	$0	Thunderstorm
8/28/1973	Litchfield County	0	0	$0	Thunderstorm
8/28/1973	Litchfield County	0	0	$0	Thunderstorm
8/28/1973	Litchfield County	0	0	$0	Thunderstorm
8/28/1973	Litchfield County	0	0	$0	Thunderstorm
8/28/1973	Litchfield County	0	0	$0	Thunderstorm
8/31/1973	Hartford County	0	0	$140,602	Tornado

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
9/6/1973	Hartford County	0	0	$14,060,191	Tornado
9/18/1973	Fairfield County	0	0	$0	Tornado
9/18/1973	New Haven County	0	0	$0	Tornado
9/18/1973	Tolland County	0	0	$0	Tornado
5/17/1974	Fairfield County	0	0	$0	Thunderstorm
6/12/1974	Litchfield County	0	0	$0	Thunderstorm
6/21/1974	Middlesex County	0	0	$0	Thunderstorm
6/27/1974	Middlesex County	0	0	$1,266	Tornado
7/3/1974	Litchfield County	0	0	$12,663	Tornado
7/3/1974	New Haven County	0	0	$0	Thunderstorm
7/5/1974	Hartford County	0	0	$0	Thunderstorm
7/5/1974	New London County	0	0	$0	Thunderstorm
7/5/1974	New London County	0	0	$0	Thunderstorm
7/15/1974	Litchfield County	0	0	$0	Thunderstorm
7/15/1974	Litchfield County	0	0	$0	Thunderstorm
7/15/1974	New Haven County	0	0	$0	Thunderstorm
8/30/1974	Fairfield County	0	0	$0	Thunderstorm
6/19/1975	Litchfield County	0	0	$0	Tornado
7/6/1975	Hartford County	0	0	$0	Thunderstorm
7/20/1975	Litchfield County	0	0	$11,604	Tornado
9/8/1975	Hartford County	0	0	$0	Thunderstorm
9/8/1975	Hartford County	0	0	$0	Thunderstorm
3/13/1976	New London County	0	0	$0	Thunderstorm
3/21/1976	Fairfield County	0	0	$0	Thunderstorm
3/21/1976	Hartford County	0	0	$0	Thunderstorm
3/21/1976	Hartford County	0	0	$0	Thunderstorm
3/21/1976	Litchfield County	0	0	$0	Thunderstorm
3/21/1976	Litchfield County	0	0	$0	Thunderstorm
5/3/1976	Litchfield County	0	0	$0	Thunderstorm
6/29/1976	Middlesex County	0	0	$0	Thunderstorm
6/30/1976	Litchfield County	0	0	$109,714	Tornado
8/19/1976	New Haven County	0	0	$0	Thunderstorm
5/6/1977	Fairfield County	0	0	$0	Thunderstorm
8/5/1977	Fairfield County	0	0	$0	Thunderstorm
8/5/1977	Hartford County	0	0	$0	Thunderstorm
11/17/1977	New London County	0	0	$0	Thunderstorm
6/19/1978	Windham County	0	0	$0	Thunderstorm
5/30/1979	Windham County	0	0	$0	Thunderstorm
8/6/1979	Fairfield County	0	0	$0	Thunderstorm
8/10/1979	Hartford County	0	0	$0	Thunderstorm
8/10/1979	Hartford County	0	0	$0	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
8/10/1979	Middlesex County	0	0	$0	Thunderstorm
8/10/1979	Windham County	0	0	$0	Thunderstorm
10/3/1979	Hartford County	0	0	$0	Thunderstorm
10/3/1979	Hartford County	0	0	$0	Thunderstorm
10/3/1979	Hartford County	3	500	$859,879,477	Tornado
6/3/1980	Windham County	0	0	$0	Thunderstorm
7/22/1980	Fairfield County	0	0	$0	Thunderstorm
9/2/1980	Fairfield County	0	0	$0	Thunderstorm
9/2/1980	Fairfield County	0	0	$0	Thunderstorm
2/11/1981	Hartford County	0	0	$0	Thunderstorm
9/8/1981	Fairfield County	0	0	$0	Thunderstorm
5/20/1982	Litchfield County	0	0	$0	Thunderstorm
5/20/1982	Litchfield County	0	0	$0	Thunderstorm
5/20/1982	Middlesex County	0	0	$0	Thunderstorm
5/20/1982	New Haven County	0	0	$0	Thunderstorm
7/8/1982	Fairfield County	0	0	$0	Thunderstorm
7/28/1982	New Haven County	0	0	$6,469	Tornado
8/17/1982	New Haven County	0	0	$0	Thunderstorm
8/17/1982	New Haven County	0	0	$0	Thunderstorm
8/25/1982	Fairfield County	0	0	$0	Thunderstorm
8/25/1982	Fairfield County	0	0	$0	Thunderstorm
8/25/1982	Fairfield County	0	0	$0	Thunderstorm
6/15/1983	Fairfield County	0	0	$0	Thunderstorm
6/15/1983	Fairfield County	0	0	$0	Thunderstorm
6/15/1983	Hartford County	0	0	$0	Thunderstorm
6/15/1983	Litchfield County	0	0	$0	Thunderstorm
6/15/1983	Litchfield County	0	0	$0	Thunderstorm
6/15/1983	New Haven County	0	0	$0	Thunderstorm
6/27/1983	Fairfield County	0	0	$0	Thunderstorm
6/27/1983	Fairfield County	0	0	$0	Thunderstorm
6/27/1983	Hartford County	0	0	$0	Thunderstorm
6/27/1983	Litchfield County	0	0	$0	Thunderstorm
7/15/1983	Fairfield County	0	0	$0	Thunderstorm
7/15/1983	Fairfield County	0	0	$0	Thunderstorm
7/30/1983	Litchfield County	0	0	$0	Thunderstorm
7/30/1983	Middlesex County	0	0	$0	Thunderstorm
8/1/1983	Litchfield County	0	0	$0	Thunderstorm
8/1/1983	Litchfield County	0	0	$0	Thunderstorm
8/1/1983	Middlesex County	0	0	$75	Tornado
8/22/1983	Hartford County	0	0	$0	Thunderstorm
8/22/1983	New Haven County	0	0	$0	Thunderstorm
8/22/1983	New Haven County	0	0	$0	Thunderstorm
8/22/1983	New Haven County	0	0	$0	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
8/28/1983	New Haven County	0	0	$0	Thunderstorm
9/21/1983	Fairfield County	0	0	$0	Thunderstorm
9/21/1983	Fairfield County	0	0	$0	Thunderstorm
9/21/1983	Fairfield County	0	0	$0	Thunderstorm
9/22/1983	Fairfield County	0	0	$0	Thunderstorm
4/23/1984	Fairfield County	0	0	$0	Thunderstorm
5/26/1984	New Haven County	0	0	$0	Thunderstorm
6/11/1984	Fairfield County	0	0	$0	Thunderstorm
6/13/1984	Hartford County	0	0	$0	Thunderstorm
6/13/1984	New London County	0	0	$0	Thunderstorm
6/13/1984	Tolland County	0	0	$0	Thunderstorm
6/13/1984	Windham County	0	0	$0	Thunderstorm
7/5/1984	Hartford County	0	0	$0	Tornado
8/7/1984	Hartford County	0	0	$0	Thunderstorm
8/7/1984	Tolland County	0	0	$0	Thunderstorm
8/16/1984	Hartford County	0	0	$0	Thunderstorm
8/16/1984	Litchfield County	0	0	$0	Thunderstorm
8/31/1984	Fairfield County	0	0	$0	Thunderstorm
8/31/1984	New Haven County	0	0	$0	Thunderstorm
9/3/1984	Fairfield County	0	0	$0	Thunderstorm
9/3/1984	Litchfield County	0	0	$0	Thunderstorm
12/3/1984	New Haven County	0	0	$0	Thunderstorm
5/13/1985	Hartford County	0	0	$0	Thunderstorm
5/13/1985	Tolland County	0	0	$0	Thunderstorm
6/20/1985	Hartford County	0	0	$0	Thunderstorm
6/20/1985	Hartford County	0	0	$0	Thunderstorm
6/20/1985	Litchfield County	0	0	$0	Thunderstorm
6/20/1985	Litchfield County	0	0	$0	Thunderstorm
6/20/1985	Tolland County	0	0	$0	Thunderstorm
6/20/1985	Tolland County	0	0	$0	Thunderstorm
6/24/1985	Windham County	0	0	$0	Thunderstorm
6/24/1985	Windham County	0	0	$5,801,789	Tornado
7/6/1985	Litchfield County	0	0	$0	Thunderstorm
8/26/1985	Windham County	0	0	$580	Tornado
9/6/1985	Hartford County	0	0	$0	Thunderstorm
9/6/1985	Middlesex County	0	0	$0	Thunderstorm
9/6/1985	Windham County	0	0	$0	Thunderstorm
6/24/1986	Hartford County	0	1	$0	Thunderstorm
8/8/1986	Windham County	0	0	$0	Thunderstorm
6/13/1987	Litchfield County	0	0	$0	Thunderstorm
6/13/1987	Litchfield County	0	0	$0	Thunderstorm
6/30/1987	Hartford County	0	0	$0	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
7/25/1987	New London County	0	0	$0	Thunderstorm
6/26/1988	New London County	0	0	$0	Thunderstorm
7/11/1988	Hartford County	0	0	$0	Thunderstorm
7/11/1988	Litchfield County	0	0	$0	Thunderstorm
7/11/1988	Litchfield County	0	0	$0	Thunderstorm
8/12/1988	Windham County	0	0	$0	Thunderstorm
11/20/1988	Fairfield County	0	0	$0	Thunderstorm
6/2/1989	Litchfield County	0	0	$0	Thunderstorm
6/2/1989	Litchfield County	0	0	$0	Thunderstorm
7/7/1989	Litchfield County	0	0	$0	Thunderstorm
7/10/1989	Litchfield County	0	0	$0	Thunderstorm
7/10/1989	Litchfield County	0	0	$0	Thunderstorm
7/10/1989	Litchfield County	0	0	$0	Thunderstorm
7/10/1989	Litchfield County	1	10	$0	Thunderstorm
7/10/1989	Litchfield County	0	4	$50,344,556	Tornado
7/10/1989	Litchfield County	0	20	$50,344,556	Tornado
7/10/1989	Middlesex County	0	0	$0	Thunderstorm
7/10/1989	New Haven County	0	50	$50,344,556	Tornado
7/10/1989	New Haven County	0	40	$503,445,565	Tornado
8/21/1989	Hartford County	0	0	$0	Thunderstorm
8/21/1989	Hartford County	0	0	$0	Thunderstorm
10/14/1989	Hartford County	0	0	$0	Thunderstorm
10/14/1989	New London County	0	0	$0	Thunderstorm
6/29/1990	Fairfield County	0	0	$0	Thunderstorm
6/29/1990	Fairfield County	0	7	$4,776	Tornado
7/20/1990	Tolland County	0	0	$0	Thunderstorm
8/13/1990	Fairfield County	0	0	$0	Thunderstorm
9/2/1990	Litchfield County	0	0	$0	Thunderstorm
10/18/1990	Fairfield County	0	0	$0	Thunderstorm
10/18/1990	Fairfield County	0	0	$0	Thunderstorm
10/18/1990	Hartford County	0	0	$0	Thunderstorm
10/18/1990	Hartford County	0	0	$0	Thunderstorm
10/18/1990	Hartford County	0	0	$0	Thunderstorm
10/18/1990	Litchfield County	0	0	$0	Thunderstorm
10/18/1990	New London County	0	0	$0	Thunderstorm
10/18/1990	Tolland County	0	0	$0	Thunderstorm
10/18/1990	Tolland County	0	0	$0	Thunderstorm
5/30/1991	Fairfield County	0	0	$0	Thunderstorm
5/30/1991	Fairfield County	0	0	$0	Thunderstorm
6/12/1991	Fairfield County	0	0	$0	Thunderstorm
6/12/1991	Hartford County	0	0	$0	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
6/12/1991	Hartford County	0	1	$0	Thunderstorm
6/12/1991	Litchfield County	0	0	$0	Thunderstorm
6/12/1991	New Haven County	0	0	$0	Thunderstorm
6/12/1991	New London County	0	0	$0	Thunderstorm
6/12/1991	New London County	0	0	$0	Thunderstorm
6/12/1991	Tolland County	0	0	$0	Thunderstorm
6/12/1991	Windham County	0	0	$0	Thunderstorm
6/12/1991	Windham County	0	0	$0	Thunderstorm
6/16/1991	Fairfield County	0	0	$0	Thunderstorm
6/16/1991	Fairfield County	0	0	$0	Thunderstorm
6/16/1991	Litchfield County	0	0	$0	Thunderstorm
6/16/1991	New Haven County	0	0	$0	Thunderstorm
6/16/1991	New Haven County	0	0	$0	Thunderstorm
6/16/1991	Tolland County	0	0	$0	Thunderstorm
7/21/1991	Hartford County	0	0	$0	Thunderstorm
7/21/1991	Hartford County	0	0	$0	Thunderstorm
7/21/1991	Litchfield County	0	0	$0	Thunderstorm
7/21/1991	Tolland County	0	0	$0	Thunderstorm
7/23/1991	Fairfield County	0	0	$0	Thunderstorm
7/23/1991	Fairfield County	0	0	$0	Thunderstorm
7/23/1991	Fairfield County	0	0	$0	Thunderstorm
7/23/1991	Hartford County	0	0	$0	Thunderstorm
7/23/1991	Hartford County	0	0	$0	Thunderstorm
7/23/1991	Hartford County	0	0	$0	Thunderstorm
7/23/1991	Tolland County	0	0	$0	Thunderstorm
8/18/1991	Fairfield County	0	0	$0	Thunderstorm
8/18/1991	Litchfield County	0	0	$0	Thunderstorm
8/18/1991	Litchfield County	0	0	$0	Thunderstorm
8/18/1991	Litchfield County	0	0	$0	Thunderstorm
8/18/1991	Litchfield County	0	0	$0	Thunderstorm
11/11/1991	New London County	0	0	$0	Thunderstorm
11/11/1991	New London County	0	0	$0	Thunderstorm
5/2/1992	Litchfield County	0	0	$0	Thunderstorm
6/24/1992	Hartford County	0	0	$0	Thunderstorm
6/24/1992	Hartford County	0	0	$0	Thunderstorm
6/24/1992	Litchfield County	0	0	$0	Thunderstorm
6/24/1992	Litchfield County	0	0	$0	Thunderstorm
6/25/1992	Hartford County	0	0	$0	Thunderstorm
6/27/1992	Hartford County	0	0	$0	Thunderstorm
6/27/1992	Tolland County	0	0	$0	Thunderstorm
6/27/1992	Windham County	0	0	$0	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
7/5/1992	Fairfield County	0	0	$0	Thunderstorm
7/5/1992	Fairfield County	0	0	$0	Tornado
7/5/1992	Litchfield County	0	0	$0	Thunderstorm
7/14/1992	Hartford County	0	0	$0	Thunderstorm
7/14/1992	Hartford County	0	0	$0	Thunderstorm
7/14/1992	Tolland County	0	0	$0	Thunderstorm
7/14/1992	Tolland County	0	0	$0	Thunderstorm
7/14/1992	Tolland County	0	0	$0	Thunderstorm
7/14/1992	Windham County	0	0	$0	Thunderstorm
7/14/1992	Windham County	0	0	$0	Tornado
7/15/1992	Fairfield County	0	0	$0	Thunderstorm
7/29/1992	Fairfield County	0	0	$0	Thunderstorm
7/29/1992	Fairfield County	0	0	$0	Thunderstorm
7/29/1992	Hartford County	0	0	$0	Thunderstorm
7/29/1992	Litchfield County	0	0	$0	Thunderstorm
8/4/1992	Fairfield County	0	0	$445	Tornado
8/4/1992	Hartford County	0	0	$0	Thunderstorm
8/4/1992	Hartford County	0	0	$0	Thunderstorm
8/4/1992	Hartford County	0	0	$0	Tornado
8/4/1992	New Haven County	0	0	$0	Thunderstorm
8/4/1992	New Haven County	0	0	$0	Thunderstorm
8/4/1992	Tolland County	0	0	$0	Thunderstorm
8/9/1992	Middlesex County	0	0	$0	Thunderstorm
8/11/1992	Fairfield County	0	0	$0	Thunderstorm
8/11/1992	Fairfield County	0	0	$0	Thunderstorm
8/11/1992	Fairfield County	0	0	$0	Thunderstorm
8/11/1992	Fairfield County	0	0	$0	Thunderstorm
8/11/1992	New Haven County	0	0	$0	Thunderstorm
8/11/1992	New Haven County	0	0	$0	Thunderstorm
8/11/1992	New London County	0	0	$0	Thunderstorm
8/11/1992	New London County	0	0	$0	Thunderstorm
8/11/1992	New London County	0	0	$0	Thunderstorm
8/11/1992	New London County	0	0	$0	Thunderstorm
8/11/1992	Windham County	0	0	$0	Thunderstorm
9/3/1992	Fairfield County	0	3	$0	Thunderstorm
9/3/1992	Fairfield County	0	0	$0	Thunderstorm
9/3/1992	Fairfield County	0	0	$0	Thunderstorm
4/30/1993	Litchfield County	0	0	$0	Thunderstorm
5/11/1993	New Haven County	0	0	$0	Thunderstorm
5/11/1993	New Haven County	0	0	$0	Thunderstorm
5/11/1993	New Haven County	0	0	$0	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
5/11/1993	New Haven County	0	0	$0	Thunderstorm
5/11/1993	New London County	0	0	$0	Thunderstorm
8/14/1993	Hartford County	0	0	$0	Thunderstorm
8/28/1993	Fairfield County	0	0	$0	Thunderstorm
8/28/1993	Fairfield County	0	0	$0	Thunderstorm
8/28/1993	Fairfield County	0	0	$0	Thunderstorm
8/28/1993	Fairfield County	0	0	$0	Thunderstorm
8/28/1993	Hartford County	0	0	$0	Thunderstorm
8/28/1993	Hartford County	0	0	$0	Thunderstorm
8/28/1993	Litchfield County	0	0	$0	Thunderstorm
8/28/1993	New Haven County	0	0	$0	Thunderstorm
8/28/1993	New Haven County	0	0	$0	Thunderstorm
8/28/1993	New London County	0	0	$0	Thunderstorm
8/28/1993	Tolland County	0	0	$0	Thunderstorm
8/28/1993	Windham County	0	0	$0	Thunderstorm
8/28/1993	Windham County	0	0	$0	Thunderstorm
9/3/1993	Hartford County	0	0	$0	Thunderstorm
9/3/1993	Tolland County	0	0	$0	Thunderstorm
9/3/1993	Windham County	0	0	$0	Thunderstorm
5/6/1994	Fairfield County	0	0	$0	Thunderstorm
5/6/1994	Hartford County	0	0	$0	Thunderstorm
5/6/1994	Hartford County	0	0	$84,247	Thunderstorm
5/6/1994	Hartford County	0	0	$0	Thunderstorm
5/6/1994	Litchfield County	0	0	$0	Thunderstorm
5/6/1994	New London County	0	0	$842	Thunderstorm
5/12/1994	Litchfield County	0	0	$0	Thunderstorm
5/23/1994	Tolland County	0	0	$0	Thunderstorm
5/25/1994	Fairfield County	0	0	$0	Thunderstorm
5/25/1994	Fairfield County	0	0	$0	Thunderstorm
5/25/1994	Fairfield County	0	0	$842,473	Thunderstorm
5/25/1994	Fairfield County	0	0	$0	Thunderstorm
5/25/1994	Middlesex County	0	0	$0	Thunderstorm
5/25/1994	New Haven County	0	0	$0	Thunderstorm
5/25/1994	New London County	0	0	$0	Thunderstorm
6/18/1994	Tolland County	0	0	$0	Thunderstorm
6/27/1994	Fairfield County	0	0	$0	Thunderstorm
6/27/1994	Litchfield County	0	0	$0	Thunderstorm
6/27/1994	Litchfield County	0	0	$0	Thunderstorm
6/29/1994	Fairfield County	0	0	$0	Thunderstorm
6/29/1994	Fairfield County	0	0	$0	Thunderstorm
6/29/1994	Hartford County	0	0	$84,247	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
6/29/1994	Hartford County	0	0	$0	Thunderstorm
6/29/1994	Hartford County	0	0	$0	Tornado
6/29/1994	Litchfield County	0	0	$0	Thunderstorm
7/8/1994	Fairfield County	0	0	$0	Thunderstorm
7/8/1994	Hartford County	0	0	$0	Thunderstorm
7/8/1994	Hartford County	0	0	$0	Thunderstorm
7/8/1994	Hartford County	0	0	$84,247	Thunderstorm
7/8/1994	Tolland County	0	0	$0	Thunderstorm
7/8/1994	Windham County	0	0	$0	Thunderstorm
7/8/1994	Windham County	0	0	$0	Thunderstorm
7/20/1994	Litchfield County	0	0	$0	Thunderstorm
7/25/1994	Hartford County	0	0	$0	Thunderstorm
7/25/1994	Litchfield County	0	0	$0	Thunderstorm
7/25/1994	Litchfield County	0	0	$0	Thunderstorm
7/25/1994	Litchfield County	0	0	$0	Thunderstorm
8/13/1994	Hartford County	0	0	$0	Thunderstorm
8/13/1994	New London County	0	0	$0	Thunderstorm
8/13/1994	Tolland County	0	0	$0	Thunderstorm
8/13/1994	Windham County	0	0	$0	Thunderstorm
9/9/1994	Fairfield County	0	0	$0	Thunderstorm
9/9/1994	New Haven County	0	0	$0	Thunderstorm
4/4/1995	Fairfield County	0	0	$0	Thunderstorm
4/4/1995	Fairfield County	0	0	$0	Thunderstorm
4/4/1995	Fairfield County	0	0	$410	Thunderstorm
4/4/1995	Fairfield County	0	1	$0	Thunderstorm
4/4/1995	Fairfield County	0	1	$0	Thunderstorm
4/4/1995	Hartford County	0	0	$0	Thunderstorm
4/4/1995	Hartford County	0	0	$0	Thunderstorm
4/4/1995	Hartford County	0	0	$0	Thunderstorm
4/4/1995	Hartford County	0	0	$0	Thunderstorm
4/4/1995	Hartford County	0	0	$0	Thunderstorm
4/4/1995	Litchfield County	0	0	$0	Thunderstorm
4/4/1995	Litchfield County	0	0	$0	Thunderstorm
4/4/1995	Litchfield County	0	0	$0	Thunderstorm
4/4/1995	Litchfield County	0	0	$0	Thunderstorm
4/4/1995	Litchfield County	0	0	$0	Thunderstorm
4/4/1995	Litchfield County	0	0	$0	Thunderstorm
4/4/1995	Middlesex County	0	0	$0	Thunderstorm
4/4/1995	Middlesex County	0	0	$0	Thunderstorm
4/4/1995	New Haven County	0	0	$0	Thunderstorm
4/4/1995	New Haven County	0	0	$0	Thunderstorm
4/4/1995	New Haven County	0	0	$410	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
4/4/1995	New Haven County	0	0	$0	Thunderstorm
4/4/1995	New Haven County	0	0	$0	Thunderstorm
4/4/1995	New London County	0	0	$0	Thunderstorm
4/4/1995	New London County	0	0	$0	Thunderstorm
4/4/1995	Tolland County	0	0	$0	Thunderstorm
4/4/1995	Tolland County	0	0	$0	Thunderstorm
5/24/1995	Fairfield County	0	0	$0	Thunderstorm
5/24/1995	Fairfield County	0	0	$0	Thunderstorm
5/24/1995	Litchfield County	0	0	$0	Thunderstorm
5/29/1995	Hartford County	0	0	$0	Thunderstorm
5/29/1995	Litchfield County	0	0	$0	Thunderstorm
5/29/1995	Middlesex County	0	0	$0	Thunderstorm
5/29/1995	Middlesex County	0	0	$0	Thunderstorm
5/29/1995	New Haven County	0	0	$0	Thunderstorm
5/29/1995	New Haven County	0	0	$0	Thunderstorm
5/29/1995	New Haven County	0	0	$0	Thunderstorm
5/29/1995	New Haven County	0	0	$16,385	Tornado
5/29/1995	New Haven County	0	0	$81,926	Tornado
6/20/1995	Hartford County	0	0	$0	Thunderstorm
6/20/1995	Hartford County	0	0	$328	Thunderstorm
6/20/1995	Hartford County	0	0	$0	Thunderstorm
6/20/1995	Hartford County	0	0	$164	Thunderstorm
6/20/1995	Hartford County	0	0	$0	Thunderstorm
6/20/1995	Hartford County	0	0	$0	Thunderstorm
6/20/1995	Middlesex County	0	0	$0	Thunderstorm
6/20/1995	Middlesex County	0	0	$1	Thunderstorm
6/20/1995	New London County	0	0	$0	Thunderstorm
6/20/1995	New London County	0	0	$0	Thunderstorm
6/20/1995	New London County	0	0	$0	Thunderstorm
6/20/1995	New London County	0	0	$0	Thunderstorm
6/20/1995	Tolland County	0	0	$0	Thunderstorm
6/20/1995	Tolland County	0	0	$0	Thunderstorm
6/20/1995	Tolland County	0	0	$0	Thunderstorm
6/20/1995	Tolland County	0	0	$0	Thunderstorm
6/20/1995	Tolland County	0	0	$327,702	Thunderstorm
6/20/1995	Tolland County	0	0	$0	Thunderstorm
7/8/1995	Tolland County	0	0	$0	Thunderstorm
7/10/1995	Litchfield County	0	0	$0	Thunderstorm
7/11/1995	Hartford County	0	0	$0	Thunderstorm
7/11/1995	Hartford County	0	0	$0	Thunderstorm
7/11/1995	Hartford County	0	0	$0	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
7/11/1995	Hartford County	0	0	$0	Thunderstorm
7/11/1995	Litchfield County	0	0	$0	Thunderstorm
7/11/1995	Litchfield County	0	0	$0	Thunderstorm
7/11/1995	New Haven County	0	0	$0	Thunderstorm
7/15/1995	Hartford County	0	0	$0	Thunderstorm
7/15/1995	Hartford County	0	0	$0	Thunderstorm
7/15/1995	Litchfield County	0	0	$0	Thunderstorm
7/23/1995	Fairfield County	0	0	$0	Thunderstorm
7/23/1995	New Haven County	0	0	$0	Tornado
7/27/1995	Fairfield County	0	0	$0	Thunderstorm
7/27/1995	New London County	0	0	$0	Thunderstorm
7/28/1995	New Haven County	0	0	$0	Thunderstorm
7/28/1995	Windham County	0	0	$0	Thunderstorm
7/29/1995	New Haven County	0	0	$0	Thunderstorm
7/29/1995	New Haven County	0	0	$0	Thunderstorm
8/2/1995	Fairfield County	0	0	$0	Thunderstorm
8/2/1995	Fairfield County	0	0	$0	Thunderstorm
8/2/1995	New Haven County	0	0	$0	Thunderstorm
8/2/1995	New Haven County	0	0	$0	Thunderstorm
8/2/1995	Tolland County	0	0	$0	Thunderstorm
8/4/1995	New London County	0	0	$0	Thunderstorm
8/4/1995	New London County	0	0	$0	Thunderstorm
8/4/1995	New London County	0	0	$0	Thunderstorm
8/4/1995	Windham County	0	0	$0	Thunderstorm
8/12/1995	Windham County	0	0	$0	Thunderstorm
10/14/1995	Fairfield County	0	0	$0	Thunderstorm
10/14/1995	Litchfield County	0	0	$3,277	Thunderstorm
10/14/1995	Middlesex County	0	0	$0	Thunderstorm
10/14/1995	New Haven County	0	0	$0	Thunderstorm
10/21/1995	New Haven County	0	0	$0	Thunderstorm
10/28/1995	Hartford County	0	0	$0	Thunderstorm
10/28/1995	Hartford County	0	0	$0	Thunderstorm
10/28/1995	New Haven County	0	0	$0	Thunderstorm
1/2/1996	Hartford County	0	0	$0	Winter
1/2/1996	Litchfield County	0	0	$0	Winter
1/2/1996	Tolland County	0	0	$0	Winter
1/2/1996	Windham County	0	0	$0	Winter
1/3/1996	Fairfield County	0	0	$0	Winter
1/3/1996	Middlesex County	0	0	$0	Winter
1/3/1996	New Haven County	0	0	$0	Winter
1/3/1996	New London County	0	0	$0	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
1/7/1996	Fairfield County	0	0	$0	Winter
1/7/1996	Fairfield County	0	0	$0	Winter
1/7/1996	Hartford County	0	0	$0	Winter
1/7/1996	Litchfield County	0	0	$127,321	Winter
1/7/1996	Middlesex County	0	0	$0	Winter
1/7/1996	Middlesex County	0	0	$0	Winter
1/7/1996	New Haven County	0	0	$0	Winter
1/7/1996	New Haven County	0	0	$0	Winter
1/7/1996	New London County	0	0	$0	Winter
1/7/1996	New London County	0	0	$0	Winter
1/7/1996	Tolland County	0	0	$0	Winter
1/7/1996	Windham County	0	0	$0	Winter
1/12/1996	Fairfield County	0	0	$0	Flood
1/12/1996	Litchfield County	0	0	$0	Winter
1/12/1996	Middlesex County	0	0	$0	Flood
1/12/1996	New Haven County	0	0	$0	Flood
1/12/1996	New London County	0	0	$0	Flood
1/19/1996	Fairfield County	0	0	$0	Thunderstorm
1/19/1996	Fairfield County	0	0	$0	Thunderstorm
1/19/1996	Fairfield County	0	0	$0	Flood
1/19/1996	Fairfield County	0	0	$0	Flood
1/19/1996	Fairfield County	0	1	$0	Thunderstorm
1/19/1996	Hartford County	0	0	$0	Flood
1/19/1996	Hartford County	0	0	$0	Thunderstorm
1/19/1996	Litchfield County	0	0	$15,915	Thunderstorm
1/19/1996	Litchfield County	0	0	$477,455	Flood
1/19/1996	Middlesex County	0	0	$0	Thunderstorm
1/19/1996	Middlesex County	0	0	$0	Flood
1/19/1996	Middlesex County	0	0	$0	Thunderstorm
1/19/1996	Middlesex County	0	0	$0	Flood
1/19/1996	New Haven County	0	0	$0	Thunderstorm
1/19/1996	New Haven County	0	0	$0	Flood
1/19/1996	New Haven County	0	0	$0	Thunderstorm
1/19/1996	New Haven County	0	0	$0	Flood
1/19/1996	New London County	0	0	$0	Thunderstorm
1/19/1996	New London County	0	0	$0	Flood
1/19/1996	New London County	0	0	$0	Thunderstorm
1/19/1996	New London County	0	0	$0	Thunderstorm
1/19/1996	New London County	0	0	$0	Flood

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
1/19/1996	New London County	0	0	$0	Thunderstorm
1/19/1996	Tolland County	0	0	$0	Thunderstorm
1/19/1996	Windham County	0	0	$0	Thunderstorm
1/20/1996	Hartford County	0	0	$0	Flood
1/24/1996	Litchfield County	0	0	$79,576	Flood
1/27/1996	Fairfield County	0	0	$0	Thunderstorm
1/27/1996	Fairfield County	0	0	$0	Flood
1/27/1996	Fairfield County	0	0	$0	Thunderstorm
1/27/1996	Hartford County	0	0	$0	Flood
1/27/1996	Hartford County	0	0	$0	Flood
1/27/1996	Hartford County	0	0	$0	Thunderstorm
1/27/1996	Litchfield County	0	0	$31,830	Thunderstorm
1/27/1996	Litchfield County	0	0	$318,303	Flood
1/27/1996	Middlesex County	0	0	$0	Flood
1/27/1996	Middlesex County	0	0	$0	Thunderstorm
1/27/1996	Middlesex County	0	0	$0	Thunderstorm
1/27/1996	New Haven County	0	0	$0	Thunderstorm
1/27/1996	New Haven County	0	0	$0	Flood
1/27/1996	New Haven County	0	0	$0	Flood
1/27/1996	New Haven County	0	0	$0	Thunderstorm
1/27/1996	New London County	0	0	$0	Thunderstorm
1/27/1996	New London County	0	0	$0	Thunderstorm
1/27/1996	Tolland County	0	0	$0	Thunderstorm
1/27/1996	Windham County	0	0	$0	Thunderstorm
1/28/1996	Hartford County	0	0	$0	Flood
1/28/1996	Hartford County	0	0	$0	Flood
2/2/1996	Hartford County	0	0	$0	Winter
2/2/1996	Litchfield County	0	0	$0	Winter
2/2/1996	Tolland County	0	0	$0	Winter
2/2/1996	Windham County	0	0	$0	Winter
2/3/1996	Fairfield County	0	0	$0	Winter
2/3/1996	Fairfield County	0	0	$0	Winter
2/3/1996	Middlesex County	0	0	$0	Winter
2/3/1996	Middlesex County	0	0	$0	Winter
2/3/1996	New Haven County	0	0	$0	Winter
2/3/1996	New Haven County	0	0	$0	Winter
2/3/1996	New London County	0	0	$0	Winter
2/3/1996	New London County	0	0	$0	Winter
2/11/1996	Hartford County	0	1	$0	Thunderstorm
2/16/1996	Fairfield County	0	0	$0	Winter
2/16/1996	Fairfield County	0	0	$0	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
2/16/1996	Hartford County	0	0	$0	Winter
2/16/1996	Middlesex County	0	0	$0	Winter
2/16/1996	Middlesex County	0	0	$0	Winter
2/16/1996	New Haven County	0	0	$0	Winter
2/16/1996	New Haven County	0	0	$0	Winter
2/16/1996	New London County	0	0	$0	Winter
2/16/1996	Tolland County	0	0	$0	Winter
2/16/1996	Windham County	0	0	$0	Winter
2/24/1996	Litchfield County	0	0	$39,788	Thunderstorm
2/25/1996	Fairfield County	0	0	$0	Thunderstorm
2/25/1996	Fairfield County	0	0	$0	Thunderstorm
2/25/1996	Hartford County	2	3	$795,758	Thunderstorm
2/25/1996	Middlesex County	0	0	$0	Thunderstorm
2/25/1996	Middlesex County	0	0	$0	Thunderstorm
2/25/1996	New Haven County	0	0	$0	Thunderstorm
2/25/1996	New Haven County	0	0	$0	Thunderstorm
2/25/1996	New London County	0	0	$0	Thunderstorm
2/25/1996	New London County	0	0	$0	Thunderstorm
2/25/1996	Tolland County	0	0	$0	Thunderstorm
2/25/1996	Windham County	0	0	$0	Thunderstorm
3/2/1996	Hartford County	0	0	$0	Winter
3/2/1996	New London County	0	0	$0	Winter
3/2/1996	Tolland County	0	0	$0	Winter
3/2/1996	Windham County	0	0	$0	Winter
3/3/1996	Hartford County	0	0	$0	Winter
3/3/1996	Tolland County	0	0	$0	Winter
3/3/1996	Windham County	0	0	$0	Winter
3/7/1996	Fairfield County	0	0	$0	Winter
3/7/1996	Hartford County	0	0	$0	Winter
3/7/1996	Litchfield County	0	0	$0	Winter
3/7/1996	Middlesex County	0	0	$0	Winter
3/7/1996	New Haven County	0	0	$0	Winter
3/7/1996	Tolland County	0	0	$0	Winter
3/7/1996	Windham County	0	0	$0	Winter
3/19/1996	Fairfield County	0	0	$0	Flood
3/19/1996	New Haven County	0	0	$0	Flood
4/7/1996	Tolland County	0	0	$0	Winter
4/7/1996	Windham County	0	0	$0	Winter
4/9/1996	Fairfield County	0	0	$0	Winter
4/9/1996	Fairfield County	0	0	$0	Winter
4/9/1996	Hartford County	0	0	$0	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
4/9/1996	Middlesex County	0	0	$0	Winter
4/9/1996	Middlesex County	0	0	$0	Winter
4/9/1996	New Haven County	0	0	$0	Winter
4/9/1996	New Haven County	0	0	$0	Winter
4/9/1996	New London County	0	0	$0	Winter
4/9/1996	New London County	0	0	$0	Winter
4/9/1996	Tolland County	0	0	$0	Winter
4/9/1996	Windham County	0	0	$0	Winter
4/16/1996	Fairfield County	0	0	$0	Flood
4/16/1996	Fairfield County	0	0	$0	Flood
4/16/1996	Fairfield County	0	0	$0	Flood
4/16/1996	Hartford County	0	0	$0	Thunderstorm
4/16/1996	Hartford County	0	0	$0	Flood
4/16/1996	Hartford County	0	0	$0	Flood
4/16/1996	Litchfield County	0	0	$15,915	Flood
4/16/1996	Litchfield County	0	0	$23,873	Flood
4/16/1996	Middlesex County	0	0	$0	Flood
4/16/1996	Middlesex County	0	0	$0	Flood
4/16/1996	New Haven County	0	0	$0	Flood
4/16/1996	New Haven County	0	0	$2,387,275	Flood
4/16/1996	New Haven County	0	0	$0	Flood
4/16/1996	New London County	0	0	$0	Flood
4/16/1996	New London County	0	0	$0	Flood
4/16/1996	Tolland County	0	0	$0	Thunderstorm
4/16/1996	Windham County	0	0	$0	Thunderstorm
4/17/1996	Hartford County	0	0	$0	Flood
4/17/1996	Hartford County	0	0	$0	Flood
4/17/1996	Hartford County	0	0	$0	Flood
5/1/1996	Hartford County	0	0	$0	Flood
5/1/1996	Hartford County	0	0	$0	Flood
5/11/1996	Fairfield County	0	0	$0	Thunderstorm
5/11/1996	Hartford County	0	0	$0	Thunderstorm
5/11/1996	Litchfield County	0	0	$12,732	Thunderstorm
5/11/1996	New Haven County	0	0	$0	Thunderstorm
5/12/1996	Hartford County	0	0	$0	Flood
5/12/1996	Hartford County	0	0	$0	Flood
5/21/1996	Fairfield County	0	0	$0	Thunderstorm
5/21/1996	Hartford County	0	0	$0	Thunderstorm
5/21/1996	Hartford County	0	0	$0	Thunderstorm
5/21/1996	Litchfield County	0	0	$31,830	Thunderstorm
5/21/1996	Litchfield County	0	0	$15,915	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
5/21/1996	Litchfield County	0	0	$15,915	Thunderstorm
5/21/1996	Litchfield County	0	0	$12,732	Thunderstorm
5/21/1996	Litchfield County	0	0	$7,958	Thunderstorm
5/21/1996	Middlesex County	0	0	$0	Thunderstorm
5/21/1996	New Haven County	0	0	$0	Thunderstorm
5/21/1996	New Haven County	0	0	$0	Thunderstorm
5/21/1996	New London County	0	0	$0	Thunderstorm
5/21/1996	New London County	0	0	$0	Thunderstorm
5/21/1996	Tolland County	0	0	$0	Thunderstorm
5/21/1996	Windham County	0	0	$0	Thunderstorm
6/3/1996	Fairfield County	0	0	$0	Flood
6/3/1996	New Haven County	0	0	$0	Flood
6/13/1996	Fairfield County	0	0	$0	Flood
6/13/1996	Fairfield County	0	0	$0	Flood
6/13/1996	Fairfield County	0	0	$0	Thunderstorm
7/3/1996	Hartford County	0	0	$0	Thunderstorm
7/3/1996	Litchfield County	0	0	$15,915	Flood
7/3/1996	New Haven County	0	0	$3,183,034	Tornado
7/8/1996	Fairfield County	0	0	$0	Thunderstorm
7/9/1996	Fairfield County	0	0	$0	Tornado
7/9/1996	Fairfield County	0	0	$0	Thunderstorm
7/9/1996	Fairfield County	0	0	$0	Thunderstorm
7/9/1996	Fairfield County	0	0	$0	Thunderstorm
7/9/1996	Fairfield County	0	0	$0	Thunderstorm
7/9/1996	Hartford County	0	0	$0	Tornado
7/9/1996	Hartford County	0	0	$0	Thunderstorm
7/9/1996	Hartford County	0	0	$0	Thunderstorm
7/9/1996	Hartford County	0	0	$0	Thunderstorm
7/9/1996	Hartford County	0	0	$0	Thunderstorm
7/9/1996	Hartford County	0	0	$0	Thunderstorm
7/9/1996	Litchfield County	0	0	$3,183	Thunderstorm
7/9/1996	Middlesex County	0	0	$0	Thunderstorm
7/9/1996	Middlesex County	0	0	$0	Thunderstorm
7/9/1996	New Haven County	0	0	$0	Thunderstorm
7/9/1996	New London County	0	0	$0	Thunderstorm
7/13/1996	Fairfield County	0	0	$0	Flood
7/13/1996	Hartford County	0	0	$0	Thunderstorm
7/13/1996	Hartford County	0	0	$0	Flood
7/13/1996	Litchfield County	0	0	$7,958	Flood
7/13/1996	Tolland County	0	0	$0	Thunderstorm
7/13/1996	Windham County	0	0	$0	Thunderstorm
7/16/1996	Litchfield County	0	0	$3,183	Flood

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
7/25/1996	Litchfield County	0	0	$1,592	Thunderstorm
8/4/1996	Tolland County	0	0	$0	Thunderstorm
8/23/1996	Fairfield County	0	0	$0	Thunderstorm
8/23/1996	Fairfield County	0	0	$0	Thunderstorm
8/23/1996	New Haven County	0	0	$0	Thunderstorm
8/23/1996	Tolland County	0	0	$0	Thunderstorm
8/24/1996	Fairfield County	0	0	$3,183	Thunderstorm
9/16/1996	Fairfield County	0	0	$0	Thunderstorm
9/16/1996	Middlesex County	0	0	$0	Thunderstorm
9/16/1996	New Haven County	0	0	$0	Thunderstorm
9/16/1996	New London County	0	0	$0	Thunderstorm
9/17/1996	Hartford County	0	0	$0	Thunderstorm
9/17/1996	Litchfield County	0	0	$9,549	Thunderstorm
9/17/1996	Tolland County	0	0	$0	Thunderstorm
9/17/1996	Windham County	0	0	$0	Thunderstorm
9/28/1996	Middlesex County	1	0	$0	Thunderstorm
10/8/1996	Fairfield County	0	0	$0	Thunderstorm
10/8/1996	Middlesex County	0	0	$0	Thunderstorm
10/8/1996	New Haven County	0	0	$0	Thunderstorm
10/8/1996	New London County	0	0	$0	Thunderstorm
10/19/1996	Fairfield County	0	0	$0	Flood
10/19/1996	Fairfield County	0	0	$0	Thunderstorm
10/19/1996	Fairfield County	0	0	$0	Flood
10/19/1996	Fairfield County	1	1	$3,183,034	Thunderstorm
10/19/1996	Middlesex County	0	0	$0	Thunderstorm
10/19/1996	Middlesex County	0	0	$0	Thunderstorm
10/19/1996	Middlesex County	0	0	$0	Thunderstorm
10/19/1996	New Haven County	0	0	$0	Flood
10/19/1996	New Haven County	0	0	$0	Thunderstorm
10/19/1996	New Haven County	0	0	$0	Flood
10/19/1996	New Haven County	0	1	$0	Thunderstorm
10/19/1996	New London County	0	0	$0	Thunderstorm
10/19/1996	New London County	0	0	$0	Thunderstorm
10/19/1996	New London County	0	0	$0	Thunderstorm
10/20/1996	Hartford County	0	0	$0	Flood
10/20/1996	Litchfield County	0	0	$15,915	Thunderstorm
10/20/1996	Litchfield County	0	0	$11,141	Flood
10/20/1996	Litchfield County	0	0	$7,958	Flood
10/20/1996	Litchfield County	0	0	$4,775	Flood
10/21/1996	Hartford County	0	0	$0	Flood
11/9/1996	Litchfield County	0	0	$7,958	Flood

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
11/26/1996	Fairfield County	0	0	$0	Thunderstorm
11/26/1996	Middlesex County	0	0	$0	Thunderstorm
11/26/1996	New Haven County	0	0	$0	Thunderstorm
11/26/1996	New London County	0	0	$0	Thunderstorm
12/1/1996	Fairfield County	0	0	$0	Thunderstorm
12/1/1996	Middlesex County	0	0	$0	Thunderstorm
12/1/1996	New Haven County	0	0	$0	Thunderstorm
12/1/1996	New London County	0	0	$0	Thunderstorm
12/2/1996	Hartford County	0	0	$0	Flood
12/2/1996	Hartford County	0	0	$0	Flood
12/2/1996	Litchfield County	0	0	$19,098	Flood
12/2/1996	Litchfield County	0	0	$15,915	Flood
12/3/1996	Hartford County	0	0	$0	Flood
12/6/1996	Fairfield County	0	0	$0	Flood
12/6/1996	Fairfield County	0	0	$0	Flood
12/6/1996	Hartford County	0	0	$58,886	Winter
12/6/1996	Litchfield County	0	0	$23,873	Winter
12/6/1996	Middlesex County	0	0	$0	Flood
12/6/1996	Middlesex County	0	0	$0	Flood
12/6/1996	New Haven County	0	0	$0	Flood
12/6/1996	New Haven County	0	0	$0	Flood
12/6/1996	New London County	0	0	$0	Flood
12/6/1996	New London County	0	0	$0	Flood
12/6/1996	Tolland County	0	0	$0	Winter
12/6/1996	Windham County	0	0	$0	Winter
12/7/1996	Fairfield County	0	0	$0	Flood
12/7/1996	Hartford County	0	0	$4,774,551	Winter
12/7/1996	Litchfield County	0	0	$23,873	Winter
12/7/1996	Middlesex County	0	0	$0	Flood
12/7/1996	Middlesex County	0	0	$0	Flood
12/7/1996	New Haven County	1	0	$0	Flood
12/7/1996	New London County	0	0	$0	Flood
12/7/1996	New London County	0	0	$0	Flood
12/7/1996	Tolland County	0	0	$3,183,034	Winter
12/7/1996	Windham County	0	0	$1,591,517	Winter
12/8/1996	Fairfield County	0	0	$0	Winter
12/8/1996	New Haven County	0	0	$0	Winter
12/13/1996	Fairfield County	0	0	$0	Flood
12/13/1996	New Haven County	0	0	$0	Flood
1/9/1997	New Haven County	0	0	$0	Flood
1/24/1997	Hartford County	0	0	$0	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
1/24/1997	Tolland County	0	0	$0	Winter
1/24/1997	Windham County	0	0	$0	Winter
2/22/1997	Litchfield County	0	0	$9,335	Thunderstorm
3/6/1997	Fairfield County	0	0	$0	Thunderstorm
3/6/1997	Fairfield County	0	1	$0	Thunderstorm
3/6/1997	Hartford County	0	0	$0	Thunderstorm
3/6/1997	Hartford County	0	0	$0	Thunderstorm
3/6/1997	Middlesex County	0	0	$0	Thunderstorm
3/6/1997	Middlesex County	0	0	$0	Thunderstorm
3/6/1997	New Haven County	0	0	$0	Thunderstorm
3/6/1997	New Haven County	0	0	$0	Thunderstorm
3/6/1997	New London County	0	0	$0	Thunderstorm
3/6/1997	New London County	0	0	$0	Thunderstorm
3/6/1997	Tolland County	0	0	$0	Thunderstorm
3/6/1997	Windham County	0	0	$0	Thunderstorm
3/6/1997	Windham County	0	0	$0	Thunderstorm
3/14/1997	Hartford County	0	0	$0	Winter
3/14/1997	Litchfield County	0	0	$12,447	Winter
3/14/1997	Tolland County	0	0	$0	Winter
3/31/1997	Fairfield County	1	0	$0	Flood
3/31/1997	Hartford County	0	0	$0	Thunderstorm
3/31/1997	Hartford County	0	0	$0	Winter
3/31/1997	Litchfield County	0	0	$1,555,819	Winter
3/31/1997	New Haven County	0	0	$0	Flood
3/31/1997	New London County	0	0	$0	Flood
3/31/1997	Tolland County	0	0	$0	Thunderstorm
3/31/1997	Tolland County	0	0	$0	Winter
3/31/1997	Windham County	0	0	$0	Thunderstorm
3/31/1997	Windham County	0	0	$0	Winter
4/1/1997	Fairfield County	0	0	$0	Winter
4/1/1997	Hartford County	0	0	$0	Thunderstorm
4/1/1997	Hartford County	0	0	$777,910	Winter
4/1/1997	Litchfield County	0	0	$0	Winter
4/1/1997	Middlesex County	0	0	$0	Winter
4/1/1997	Middlesex County	0	0	$0	Winter
4/1/1997	New Haven County	0	0	$0	Winter
4/1/1997	New London County	0	0	$0	Winter
4/1/1997	Tolland County	0	0	$0	Thunderstorm
4/1/1997	Tolland County	0	0	$777,910	Winter
4/1/1997	Windham County	0	0	$0	Thunderstorm
4/1/1997	Windham County	0	0	$0	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
4/8/1997	Hartford County	0	0	$0	Flood
4/20/1997	Hartford County	0	0	$0	Flood
5/1/1997	New London County	0	0	$0	Thunderstorm
5/1/1997	Windham County	0	0	$0	Thunderstorm
5/1/1997	Windham County	0	0	$0	Thunderstorm
5/6/1997	Fairfield County	0	0	$0	Tornado
5/6/1997	Fairfield County	0	0	$0	Thunderstorm
5/6/1997	Fairfield County	0	0	$0	Thunderstorm
5/6/1997	Hartford County	0	0	$0	Thunderstorm
5/6/1997	Hartford County	0	0	$0	Thunderstorm
5/6/1997	Hartford County	0	0	$0	Thunderstorm
5/6/1997	New Haven County	0	0	$0	Thunderstorm
5/6/1997	New Haven County	0	0	$0	Thunderstorm
5/19/1997	Litchfield County	0	0	$3,112	Thunderstorm
6/19/1997	New London County	1	0	$0	Thunderstorm
6/22/1997	Fairfield County	1	0	$0	Thunderstorm
6/26/1997	Fairfield County	0	0	$0	Thunderstorm
6/26/1997	Hartford County	0	0	$0	Thunderstorm
6/26/1997	Middlesex County	0	0	$0	Thunderstorm
6/26/1997	Middlesex County	0	0	$0	Thunderstorm
6/26/1997	New London County	0	0	$0	Thunderstorm
7/7/1997	Fairfield County	0	0	$0	Thunderstorm
7/7/1997	Hartford County	0	0	$0	Thunderstorm
7/7/1997	Hartford County	0	0	$0	Thunderstorm
7/7/1997	Litchfield County	0	0	$0	Thunderstorm
7/7/1997	New Haven County	0	0	$0	Thunderstorm
7/9/1997	Fairfield County	0	0	$0	Thunderstorm
7/9/1997	Fairfield County	0	0	$0	Thunderstorm
7/9/1997	Hartford County	0	0	$0	Thunderstorm
7/9/1997	Hartford County	0	0	$0	Thunderstorm
7/9/1997	Hartford County	0	0	$0	Thunderstorm
7/9/1997	Litchfield County	0	0	$15,558	Flood
7/9/1997	Litchfield County	0	0	$6,223	Thunderstorm
7/9/1997	Litchfield County	0	0	$4,667	Thunderstorm
7/9/1997	Litchfield County	0	0	$7,779	Thunderstorm
7/9/1997	Litchfield County	0	0	$3,112	Thunderstorm
7/9/1997	New Haven County	0	0	$0	Thunderstorm
7/15/1997	Fairfield County	0	1	$0	Thunderstorm
7/15/1997	Fairfield County	0	0	$0	Thunderstorm
7/15/1997	Fairfield County	0	0	$0	Thunderstorm
7/15/1997	Hartford County	0	0	$0	Thunderstorm
7/15/1997	Hartford County	0	0	$15,558	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
7/15/1997	Litchfield County	0	0	$3,112	Thunderstorm
7/15/1997	New Haven County	0	0	$0	Thunderstorm
7/15/1997	Tolland County	0	0	$4,667	Thunderstorm
7/18/1997	New Haven County	0	0	$0	Thunderstorm
7/18/1997	New Haven County	0	0	$0	Thunderstorm
7/24/1997	Fairfield County	0	0	$0	Thunderstorm
7/24/1997	Middlesex County	0	0	$0	Thunderstorm
7/24/1997	New Haven County	0	0	$0	Thunderstorm
7/24/1997	New London County	0	0	$0	Thunderstorm
8/3/1997	Fairfield County	0	0	$0	Thunderstorm
8/3/1997	Hartford County	0	0	$0	Thunderstorm
8/3/1997	Litchfield County	0	0	$3,112	Thunderstorm
8/3/1997	Litchfield County	0	0	$4,667	Thunderstorm
8/3/1997	Litchfield County	0	0	$3,112	Thunderstorm
8/3/1997	Middlesex County	0	0	$0	Thunderstorm
8/3/1997	Middlesex County	0	0	$0	Thunderstorm
8/3/1997	New Haven County	0	0	$0	Thunderstorm
8/3/1997	New Haven County	0	0	$0	Thunderstorm
8/3/1997	Windham County	0	0	$0	Thunderstorm
8/4/1997	Litchfield County	0	0	$62,233	Thunderstorm
8/4/1997	New London County	0	0	$0	Flood
8/5/1997	Middlesex County	0	0	$0	Thunderstorm
8/9/1997	New London County	0	1	$0	Thunderstorm
8/9/1997	New London County	0	0	$0	Thunderstorm
8/9/1997	New London County	0	0	$0	Thunderstorm
8/9/1997	New London County	0	0	$0	Thunderstorm
8/9/1997	Windham County	0	0	$0	Thunderstorm
8/16/1997	Fairfield County	0	0	$0	Thunderstorm
8/16/1997	Fairfield County	0	0	$0	Thunderstorm
8/20/1997	Fairfield County	0	0	$0	Flood
8/20/1997	Fairfield County	2	0	$0	Thunderstorm
8/20/1997	New Haven County	0	0	$0	Flood
8/20/1997	New Haven County	0	0	$0	Thunderstorm
8/29/1997	Hartford County	0	0	$777,910	Flood
8/29/1997	Hartford County	0	0	$0	Thunderstorm
9/20/1997	Fairfield County	0	3	$0	Thunderstorm
9/20/1997	New Haven County	0	0	$0	Thunderstorm
11/1/1997	Fairfield County	0	0	$0	Thunderstorm
11/1/1997	Hartford County	0	0	$0	Thunderstorm
11/1/1997	Litchfield County	0	0	$9,335	Thunderstorm
11/1/1997	New Haven County	0	0	$0	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
11/1/1997	New Haven County	0	0	$0	Thunderstorm
11/1/1997	New London County	0	0	$0	Thunderstorm
11/1/1997	Tolland County	0	0	$0	Thunderstorm
11/1/1997	Windham County	0	0	$0	Thunderstorm
11/4/1997	Litchfield County	0	0	$31,116	Thunderstorm
11/7/1997	Fairfield County	0	0	$0	Thunderstorm
11/7/1997	Middlesex County	0	0	$0	Thunderstorm
11/7/1997	New Haven County	0	0	$0	Thunderstorm
11/7/1997	New London County	0	0	$0	Thunderstorm
11/13/1997	Fairfield County	0	0	$0	Winter
11/13/1997	New Haven County	0	0	$0	Winter
11/14/1997	Fairfield County	0	0	$0	Flood
11/14/1997	Litchfield County	0	0	$23,337	Winter
11/14/1997	New Haven County	0	0	$0	Flood
11/27/1997	Fairfield County	0	0	$0	Thunderstorm
11/27/1997	Fairfield County	0	0	$0	Thunderstorm
11/27/1997	Hartford County	0	0	$0	Thunderstorm
11/27/1997	Tolland County	0	0	$0	Thunderstorm
11/27/1997	Windham County	0	0	$0	Thunderstorm
12/2/1997	Hartford County	0	0	$0	Thunderstorm
12/2/1997	Tolland County	0	0	$0	Thunderstorm
12/2/1997	Windham County	0	0	$0	Thunderstorm
12/10/1997	Fairfield County	1	0	$0	Winter
12/10/1997	Hartford County	0	0	$0	Winter
12/10/1997	Litchfield County	0	0	$0	Winter
12/10/1997	Tolland County	0	0	$0	Winter
12/14/1997	Hartford County	0	0	$0	Thunderstorm
12/14/1997	Tolland County	0	0	$0	Thunderstorm
12/14/1997	Windham County	0	0	$0	Thunderstorm
12/23/1997	Tolland County	0	0	$0	Winter
12/23/1997	Windham County	0	0	$0	Winter
12/24/1997	Litchfield County	0	0	$0	Winter
12/29/1997	Fairfield County	0	0	$0	Thunderstorm
12/29/1997	New Haven County	0	0	$0	Thunderstorm
12/29/1997	New Haven County	0	0	$0	Thunderstorm
12/29/1997	New London County	0	0	$0	Thunderstorm
12/30/1997	New Haven County	0	0	$0	Thunderstorm
1/8/1998	Litchfield County	0	0	$38,299	Flood
1/9/1998	Hartford County	0	0	$0	Flood
1/10/1998	Middlesex County	0	0	$0	Flood
1/15/1998	Fairfield County	0	0	$0	Winter
1/15/1998	Hartford County	0	0	$0	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
1/15/1998	Litchfield County	0	0	$30,639	Winter
1/15/1998	Middlesex County	0	0	$0	Winter
1/15/1998	New Haven County	0	0	$0	Winter
1/15/1998	Tolland County	0	0	$0	Winter
1/15/1998	Windham County	0	0	$0	Winter
1/23/1998	Fairfield County	0	0	$0	Flood
1/23/1998	New Haven County	0	0	$0	Flood
1/24/1998	Middlesex County	0	0	$0	Flood
1/24/1998	New London County	0	0	$0	Flood
2/4/1998	Litchfield County	0	0	$0	Winter
2/24/1998	Hartford County	0	0	$0	Thunderstorm
2/24/1998	Tolland County	0	0	$0	Thunderstorm
2/24/1998	Windham County	0	0	$0	Thunderstorm
3/8/1998	Hartford County	0	0	$0	Thunderstorm
3/8/1998	Tolland County	0	0	$0	Thunderstorm
3/8/1998	Windham County	0	0	$0	Thunderstorm
3/9/1998	Fairfield County	0	0	$0	Flood
3/9/1998	Hartford County	0	0	$0	Thunderstorm
3/9/1998	Hartford County	0	0	$0	Flood
3/9/1998	Middlesex County	0	0	$0	Flood
3/9/1998	New Haven County	0	0	$0	Flood
3/9/1998	New Haven County	0	0	$0	Flood
3/9/1998	New Haven County	0	0	$0	Flood
3/9/1998	New London County	0	0	$0	Flood
3/9/1998	New London County	0	0	$0	Flood
3/9/1998	Tolland County	0	0	$0	Thunderstorm
3/9/1998	Windham County	0	0	$0	Flood
3/9/1998	Windham County	0	0	$0	Thunderstorm
3/11/1998	Hartford County	0	0	$0	Flood
3/14/1998	Litchfield County	0	0	$0	Winter
3/18/1998	Hartford County	0	0	$0	Thunderstorm
3/21/1998	Hartford County	0	0	$0	Winter
3/21/1998	Litchfield County	0	0	$0	Winter
3/21/1998	Tolland County	0	0	$0	Winter
3/30/1998	Hartford County	0	0	$0	Flood
4/1/1998	Fairfield County	0	0	$0	Thunderstorm
4/1/1998	Hartford County	0	0	$0	Flood
4/2/1998	Tolland County	0	0	$0	Thunderstorm
4/23/1998	Middlesex County	1	1	$0	Thunderstorm
5/6/1998	Hartford County	0	0	$0	Thunderstorm
5/9/1998	Fairfield County	0	0	$0	Thunderstorm
5/9/1998	Hartford County	0	0	$0	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
5/9/1998	Middlesex County	0	0	$0	Thunderstorm
5/9/1998	New Haven County	0	0	$0	Thunderstorm
5/9/1998	New London County	0	0	$0	Thunderstorm
5/9/1998	Tolland County	0	0	$0	Thunderstorm
5/9/1998	Windham County	0	0	$0	Thunderstorm
5/11/1998	Hartford County	0	0	$0	Flood
5/20/1998	Fairfield County	0	0	$0	Thunderstorm
5/29/1998	Fairfield County	0	0	$0	Thunderstorm
5/29/1998	Fairfield County	0	0	$0	Thunderstorm
5/29/1998	Fairfield County	0	0	$0	Thunderstorm
5/29/1998	Hartford County	0	0	$30,639	Thunderstorm
5/29/1998	Hartford County	0	0	$0	Thunderstorm
5/29/1998	Litchfield County	0	0	$4,596	Thunderstorm
5/29/1998	Litchfield County	0	0	$4,596	Thunderstorm
5/29/1998	New Haven County	0	0	$0	Thunderstorm
5/31/1998	Fairfield County	0	1	$0	Thunderstorm
5/31/1998	Fairfield County	0	0	$0	Thunderstorm
5/31/1998	Fairfield County	0	0	$0	Thunderstorm
5/31/1998	Hartford County	0	0	$0	Thunderstorm
5/31/1998	Litchfield County	0	0	$6,128	Tornado
5/31/1998	Litchfield County	0	0	$6,128	Thunderstorm
5/31/1998	New Haven County	0	0	$0	Thunderstorm
6/2/1998	Middlesex County	0	0	$0	Thunderstorm
6/13/1998	Fairfield County	0	0	$0	Thunderstorm
6/13/1998	Middlesex County	0	0	$0	Thunderstorm
6/13/1998	New Haven County	0	0	$0	Thunderstorm
6/13/1998	New London County	0	0	$0	Thunderstorm
6/13/1998	New London County	0	0	$0	Flood
6/14/1998	Windham County	0	0	$0	Flood
6/16/1998	Hartford County	0	0	$0	Flood
6/18/1998	New London County	0	0	$0	Flood
6/18/1998	Tolland County	0	0	$0	Thunderstorm
6/19/1998	Middlesex County	0	0	$0	Flood
6/19/1998	New London County	0	0	$0	Flood
6/19/1998	New London County	0	0	$0	Flood
6/20/1998	New Haven County	0	0	$0	Thunderstorm
6/20/1998	New London County	0	0	$0	Thunderstorm
6/20/1998	New London County	0	0	$0	Thunderstorm
6/20/1998	Windham County	0	0	$0	Thunderstorm
6/30/1998	Fairfield County	0	0	$0	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
6/30/1998	Hartford County	0	0	$0	Flood
6/30/1998	Hartford County	0	0	$0	Flood
6/30/1998	Litchfield County	0	0	$22,979	Flood
6/30/1998	Litchfield County	0	0	$1,532	Thunderstorm
6/30/1998	Litchfield County	0	0	$12,256	Thunderstorm
6/30/1998	Litchfield County	0	0	$2,298	Thunderstorm
6/30/1998	Litchfield County	0	0	$3,064	Thunderstorm
6/30/1998	Litchfield County	0	0	$1,532	Thunderstorm
6/30/1998	Middlesex County	0	0	$0	Thunderstorm
6/30/1998	Middlesex County	0	0	$0	Thunderstorm
6/30/1998	Middlesex County	0	0	$0	Thunderstorm
6/30/1998	Middlesex County	0	0	$0	Tornado
6/30/1998	Middlesex County	0	0	$0	Tornado
6/30/1998	New Haven County	0	0	$0	Thunderstorm
6/30/1998	New Haven County	0	0	$0	Thunderstorm
6/30/1998	New Haven County	0	0	$0	Flood
6/30/1998	New Haven County	0	0	$0	Thunderstorm
6/30/1998	New Haven County	0	0	$0	Thunderstorm
6/30/1998	New Haven County	0	0	$0	Thunderstorm
6/30/1998	New London County	0	0	$0	Thunderstorm
6/30/1998	New London County	0	0	$0	Thunderstorm
6/30/1998	New London County	0	0	$0	Thunderstorm
6/30/1998	New London County	0	0	$0	Thunderstorm
6/30/1998	New London County	0	0	$0	Tornado
7/1/1998	Hartford County	0	0	$0	Flood
7/1/1998	Hartford County	0	0	$0	Flood
7/1/1998	New Haven County	0	0	$0	Flood
7/17/1998	Litchfield County	0	0	$13,788	Thunderstorm
7/17/1998	New Haven County	0	0	$0	Thunderstorm
7/20/1998	Hartford County	0	0	$0	Thunderstorm
7/20/1998	Litchfield County	0	0	$3,830	Thunderstorm
7/20/1998	Litchfield County	0	0	$3,064	Thunderstorm
7/20/1998	Litchfield County	0	0	$4,596	Thunderstorm
7/20/1998	New Haven County	0	0	$0	Thunderstorm
7/23/1998	Fairfield County	0	0	$0	Thunderstorm
7/23/1998	Hartford County	0	0	$12,256	Thunderstorm
7/23/1998	Hartford County	0	0	$0	Thunderstorm
7/23/1998	Hartford County	0	0	$0	Thunderstorm
8/11/1998	Fairfield County	0	0	$0	Thunderstorm
8/11/1998	New Haven County	0	2	$0	Thunderstorm
8/17/1998	Middlesex County	0	0	$0	Flood

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
8/17/1998	New Haven County	0	0	$0	Flood
8/17/1998	New London County	0	0	$0	Flood
8/18/1998	Fairfield County	0	0	$0	Thunderstorm
8/18/1998	New Haven County	0	0	$0	Thunderstorm
8/18/1998	New Haven County	0	0	$0	Thunderstorm
8/25/1998	Fairfield County	0	0	$0	Thunderstorm
8/25/1998	New Haven County	0	0	$0	Thunderstorm
8/26/1998	Fairfield County	0	0	$0	Thunderstorm
8/26/1998	New Haven County	0	0	$137,876	Thunderstorm
8/26/1998	New Haven County	0	0	$0	Thunderstorm
9/7/1998	Fairfield County	0	0	$0	Thunderstorm
9/7/1998	Fairfield County	0	0	$0	Thunderstorm
9/7/1998	New Haven County	0	0	$0	Thunderstorm
9/15/1998	Hartford County	0	0	$0	Thunderstorm
9/15/1998	Tolland County	0	0	$0	Thunderstorm
9/15/1998	Windham County	0	0	$0	Thunderstorm
9/27/1998	Litchfield County	0	0	$0	Thunderstorm
9/27/1998	New Haven County	0	0	$0	Thunderstorm
9/27/1998	New London County	0	0	$0	Thunderstorm
10/1/1998	Fairfield County	0	1	$0	Thunderstorm
10/1/1998	Litchfield County	0	0	$153,196	Thunderstorm
10/14/1998	Hartford County	0	0	$0	Thunderstorm
10/14/1998	Tolland County	0	0	$0	Thunderstorm
11/11/1998	Fairfield County	0	0	$0	Thunderstorm
11/11/1998	Fairfield County	0	0	$0	Thunderstorm
11/11/1998	Hartford County	0	0	$0	Thunderstorm
11/11/1998	New Haven County	0	0	$0	Thunderstorm
11/11/1998	New Haven County	0	0	$0	Thunderstorm
11/11/1998	New London County	0	0	$0	Thunderstorm
11/11/1998	New London County	0	0	$0	Thunderstorm
12/1/1998	Hartford County	0	0	$0	Thunderstorm
12/1/1998	Tolland County	0	0	$0	Thunderstorm
12/1/1998	Windham County	0	0	$0	Thunderstorm
12/29/1998	Hartford County	0	0	$0	Winter
1/2/1999	Litchfield County	0	0	$0	Winter
1/3/1999	Fairfield County	0	0	$0	Winter
1/3/1999	Fairfield County	0	0	$0	Flood
1/3/1999	New Haven County	0	0	$0	Winter
1/3/1999	New Haven County	0	0	$0	Flood
1/3/1999	New Haven County	0	0	$0	Flood
1/3/1999	New London County	0	0	$0	Flood

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
1/14/1999	Litchfield County	0	0	$1,499	Winter
1/15/1999	Fairfield County	0	0	$0	Flood
1/15/1999	Fairfield County	0	0	$0	Flood
1/15/1999	Middlesex County	0	0	$0	Flood
1/15/1999	New Haven County	0	0	$0	Flood
1/15/1999	New Haven County	0	0	$0	Flood
1/15/1999	New London County	0	0	$0	Flood
1/18/1999	Fairfield County	0	0	$0	Thunderstorm
1/18/1999	Hartford County	0	0	$0	Thunderstorm
1/18/1999	New Haven County	0	0	$0	Thunderstorm
1/18/1999	New Haven County	0	1	$0	Thunderstorm
1/18/1999	Tolland County	0	0	$0	Thunderstorm
1/18/1999	Windham County	0	0	$0	Thunderstorm
1/19/1999	Litchfield County	0	0	$7,494	Flood
1/24/1999	Hartford County	0	0	$0	Flood
1/24/1999	Litchfield County	0	0	$10,492	Flood
1/24/1999	New Haven County	0	0	$0	Flood
2/2/1999	Fairfield County	0	0	$0	Thunderstorm
2/2/1999	Hartford County	0	0	$0	Flood
2/2/1999	Litchfield County	0	0	$0	Flood
2/2/1999	Middlesex County	0	0	$0	Thunderstorm
2/2/1999	New Haven County	0	0	$0	Flood
2/2/1999	New London County	0	0	$0	Thunderstorm
2/25/1999	New London County	0	0	$0	Winter
2/25/1999	New London County	0	0	$0	Winter
2/25/1999	Tolland County	0	0	$0	Winter
2/25/1999	Windham County	0	0	$0	Winter
2/26/1999	Middlesex County	0	0	$0	Winter
3/3/1999	New Haven County	0	0	$0	Thunderstorm
3/4/1999	Hartford County	0	0	$0	Thunderstorm
3/4/1999	Litchfield County	0	0	$0	Thunderstorm
3/4/1999	Tolland County	0	0	$0	Thunderstorm
3/4/1999	Windham County	0	0	$0	Thunderstorm
3/14/1999	Litchfield County	0	0	$14,989	Winter
3/15/1999	Fairfield County	0	0	$0	Winter
3/15/1999	Fairfield County	0	0	$0	Winter
3/15/1999	Hartford County	0	0	$0	Winter
3/15/1999	Middlesex County	0	0	$0	Winter
3/15/1999	Middlesex County	0	0	$0	Winter
3/15/1999	New Haven County	0	0	$0	Winter
3/15/1999	New Haven County	0	0	$0	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
3/15/1999	New London County	0	0	$0	Winter
3/15/1999	New London County	0	0	$0	Winter
3/15/1999	Tolland County	0	0	$0	Winter
3/15/1999	Windham County	0	0	$0	Winter
3/21/1999	Fairfield County	0	0	$0	Thunderstorm
3/22/1999	Hartford County	0	0	$0	Thunderstorm
3/22/1999	Tolland County	0	0	$0	Thunderstorm
3/22/1999	Windham County	0	0	$0	Thunderstorm
3/23/1999	Hartford County	0	0	$0	Flood
4/1/1999	Litchfield County	0	0	$0	Drought
4/16/1999	Fairfield County	0	0	$0	Thunderstorm
5/19/1999	Fairfield County	0	0	$0	Thunderstorm
5/24/1999	New Haven County	0	0	$0	Thunderstorm
6/7/1999	Hartford County	0	0	$0	Thunderstorm
6/7/1999	Hartford County	0	0	$0	Thunderstorm
6/7/1999	Hartford County	0	0	$0	Thunderstorm
6/7/1999	Litchfield County	0	0	$4,497	Thunderstorm
6/7/1999	Litchfield County	0	0	$5,995	Thunderstorm
6/7/1999	Litchfield County	0	0	$2,998	Thunderstorm
6/7/1999	Litchfield County	0	0	$0	Thunderstorm
6/7/1999	Litchfield County	0	0	$0	Thunderstorm
6/7/1999	Litchfield County	0	0	$0	Thunderstorm
6/7/1999	Litchfield County	0	0	$0	Thunderstorm
6/7/1999	Litchfield County	0	0	$7,494	Thunderstorm
6/28/1999	Litchfield County	0	0	$74,943	Thunderstorm
6/29/1999	Fairfield County	0	0	$0	Thunderstorm
7/6/1999	Litchfield County	0	0	$7,494	Thunderstorm
7/6/1999	Litchfield County	0	0	$4,497	Thunderstorm
7/6/1999	Litchfield County	0	0	$2,998	Thunderstorm
7/6/1999	Tolland County	0	0	$0	Thunderstorm
7/18/1999	Hartford County	0	0	$0	Thunderstorm
7/18/1999	Hartford County	0	0	$0	Thunderstorm
7/18/1999	Middlesex County	0	0	$0	Thunderstorm
7/18/1999	New London County	0	0	$0	Thunderstorm
7/18/1999	New London County	0	0	$0	Thunderstorm
7/18/1999	Tolland County	0	0	$0	Thunderstorm
7/18/1999	Tolland County	0	0	$0	Thunderstorm
7/18/1999	Windham County	0	0	$0	Thunderstorm
7/19/1999	Hartford County	0	0	$0	Thunderstorm
7/19/1999	Litchfield County	0	0	$1,499	Thunderstorm
7/19/1999	Litchfield County	0	0	$4,497	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
7/19/1999	New London County	0	0	$0	Thunderstorm
7/19/1999	Tolland County	0	0	$0	Thunderstorm
7/19/1999	Tolland County	0	0	$0	Thunderstorm
7/19/1999	Windham County	0	0	$0	Thunderstorm
7/19/1999	Windham County	0	0	$0	Thunderstorm
7/19/1999	Windham County	0	0	$0	Thunderstorm
7/19/1999	Windham County	0	0	$0	Thunderstorm
7/23/1999	Windham County	0	0	$0	Thunderstorm
7/24/1999	Hartford County	0	0	$0	Thunderstorm
7/24/1999	Hartford County	0	0	$0	Thunderstorm
7/24/1999	New Haven County	0	0	$0	Thunderstorm
7/24/1999	Tolland County	0	0	$0	Thunderstorm
7/24/1999	Tolland County	0	0	$0	Thunderstorm
7/24/1999	Windham County	0	0	$0	Thunderstorm
7/24/1999	Windham County	0	0	$0	Thunderstorm
7/29/1999	Litchfield County	0	0	$749	Flood
7/29/1999	Litchfield County	0	0	$0	Thunderstorm
7/29/1999	Litchfield County	0	0	$0	Thunderstorm
8/1/1999	Litchfield County	0	0	$0	Drought
8/5/1999	Hartford County	0	0	$0	Thunderstorm
8/5/1999	Hartford County	0	0	$0	Thunderstorm
8/5/1999	Litchfield County	0	0	$59,954	Thunderstorm
8/5/1999	Middlesex County	0	0	$0	Thunderstorm
8/5/1999	New London County	0	0	$0	Thunderstorm
8/5/1999	New London County	0	0	$0	Thunderstorm
8/5/1999	Windham County	0	0	$0	Thunderstorm
8/5/1999	Windham County	0	0	$0	Thunderstorm
8/14/1999	Fairfield County	0	0	$0	Thunderstorm
8/26/1999	New London County	0	0	$0	Flood
9/10/1999	Hartford County	0	0	$0	Thunderstorm
9/10/1999	Tolland County	0	0	$0	Thunderstorm
9/10/1999	Windham County	0	0	$0	Thunderstorm
9/16/1999	Fairfield County	0	0	$1,948,510	Flood
9/16/1999	Hartford County	0	0	$0	Thunderstorm
9/16/1999	Hartford County	0	0	$0	Flood
9/16/1999	Hartford County	0	0	$0	Flood
9/16/1999	Hartford County	0	0	$0	Thunderstorm
9/16/1999	Hartford County	0	0	$0	Flood
9/16/1999	Hartford County	0	0	$0	Flood
9/16/1999	Litchfield County	0	0	$149,885	Thunderstorm
9/16/1999	Litchfield County	0	0	$1,648,739	Flood

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
9/16/1999	Litchfield County	0	0	$149,885	Thunderstorm
9/16/1999	Middlesex County	0	0	$0	Flood
9/16/1999	New Haven County	1	0	$0	Flood
9/16/1999	New London County	0	0	$0	Thunderstorm
9/16/1999	Tolland County	0	0	$0	Thunderstorm
9/16/1999	Tolland County	0	0	$0	Thunderstorm
9/16/1999	Windham County	0	0	$0	Thunderstorm
9/16/1999	Windham County	0	0	$0	Thunderstorm
9/17/1999	Hartford County	0	0	$0	Flood
10/14/1999	Hartford County	0	0	$0	Thunderstorm
11/2/1999	Fairfield County	0	0	$0	Thunderstorm
11/2/1999	Fairfield County	0	0	$0	Thunderstorm
11/2/1999	Hartford County	0	0	$0	Thunderstorm
11/2/1999	Litchfield County	0	0	$16,487	Thunderstorm
11/2/1999	New Haven County	0	0	$0	Thunderstorm
11/2/1999	New Haven County	0	0	$0	Thunderstorm
11/2/1999	Tolland County	0	0	$0	Thunderstorm
11/2/1999	Windham County	0	0	$0	Thunderstorm
12/11/1999	Hartford County	0	0	$0	Thunderstorm
12/20/1999	Hartford County	0	0	$0	Winter
12/20/1999	Tolland County	0	0	$0	Winter
12/20/1999	Windham County	0	0	$0	Winter
1/12/2000	Hartford County	0	0	$0	Thunderstorm
1/13/2000	Hartford County	0	0	$0	Winter
1/13/2000	Litchfield County	0	0	$13,051	Winter
1/13/2000	Tolland County	0	0	$0	Winter
1/13/2000	Windham County	0	0	$0	Winter
1/16/2000	Hartford County	0	0	$0	Thunderstorm
1/17/2000	Fairfield County	0	0	$0	Winter
1/17/2000	Fairfield County	0	0	$0	Winter
1/17/2000	Middlesex County	0	0	$0	Winter
1/17/2000	Middlesex County	0	0	$0	Winter
1/17/2000	New Haven County	0	0	$0	Winter
1/17/2000	New Haven County	0	0	$0	Winter
1/17/2000	New London County	0	0	$0	Winter
1/17/2000	New London County	0	0	$0	Winter
1/21/2000	Fairfield County	0	0	$0	Winter
1/21/2000	Fairfield County	0	0	$0	Winter
1/21/2000	Middlesex County	0	0	$0	Winter
1/21/2000	Middlesex County	0	0	$0	Winter
1/21/2000	New Haven County	0	0	$0	Winter
1/21/2000	New Haven County	0	0	$0	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
1/21/2000	New London County	0	0	$0	Winter
1/21/2000	New London County	0	0	$0	Winter
1/25/2000	Fairfield County	0	0	$0	Winter
1/25/2000	Fairfield County	0	0	$0	Winter
1/25/2000	Hartford County	0	0	$0	Winter
1/25/2000	Litchfield County	0	0	$36,253	Winter
1/25/2000	Tolland County	0	0	$0	Winter
1/25/2000	Windham County	0	0	$0	Winter
1/26/2000	New Haven County	0	0	$0	Winter
1/31/2000	Litchfield County	0	0	$17,401	Winter
2/18/2000	Fairfield County	0	0	$0	Winter
2/18/2000	Hartford County	0	0	$0	Winter
2/18/2000	Litchfield County	0	0	$0	Winter
2/18/2000	Middlesex County	0	0	$0	Winter
2/18/2000	New Haven County	0	0	$0	Winter
2/18/2000	New London County	0	0	$0	Winter
2/18/2000	Tolland County	0	0	$0	Winter
2/18/2000	Windham County	0	0	$0	Winter
3/11/2000	Fairfield County	0	0	$0	Thunderstorm
3/11/2000	Middlesex County	0	0	$0	Thunderstorm
3/11/2000	New Haven County	0	0	$0	Thunderstorm
3/11/2000	New London County	0	0	$0	Thunderstorm
3/26/2000	Fairfield County	0	0	$87,007	Thunderstorm
4/6/2000	Hartford County	0	0	$0	Flood
4/8/2000	Hartford County	0	1	$0	Thunderstorm
4/9/2000	Litchfield County	0	0	$50,754	Winter
4/12/2000	Hartford County	0	0	$0	Flood
4/21/2000	Fairfield County	0	0	$0	Flood
4/21/2000	New Haven County	0	0	$0	Thunderstorm
4/21/2000	New Haven County	0	0	$0	Flood
4/21/2000	New Haven County	0	0	$0	Flood
4/21/2000	New Haven County	0	0	$0	Flood
4/22/2000	Hartford County	0	0	$0	Flood
5/10/2000	Hartford County	0	0	$0	Thunderstorm
5/10/2000	Litchfield County	0	0	$0	Thunderstorm
5/10/2000	Middlesex County	1	0	$0	Thunderstorm
5/10/2000	Middlesex County	0	0	$0	Thunderstorm
5/10/2000	New Haven County	0	0	$0	Thunderstorm
5/10/2000	New London County	0	0	$0	Thunderstorm
5/18/2000	Fairfield County	0	0	$0	Thunderstorm
5/18/2000	Fairfield County	0	0	$0	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
5/18/2000	Hartford County	0	0	$0	Thunderstorm
5/18/2000	Litchfield County	0	0	$21,752	Thunderstorm
5/18/2000	Litchfield County	0	0	$0	Thunderstorm
5/18/2000	Litchfield County	0	0	$36,253	Thunderstorm
5/18/2000	Litchfield County	0	0	$79,756	Thunderstorm
5/18/2000	New Haven County	0	0	$0	Thunderstorm
5/18/2000	New Haven County	0	0	$0	Thunderstorm
5/24/2000	Fairfield County	0	0	$0	Thunderstorm
5/24/2000	Hartford County	0	0	$0	Thunderstorm
5/24/2000	Hartford County	0	0	$0	Thunderstorm
5/24/2000	Hartford County	0	0	$0	Thunderstorm
5/24/2000	Tolland County	0	0	$0	Thunderstorm
5/24/2000	Tolland County	0	0	$0	Thunderstorm
5/24/2000	Windham County	0	0	$0	Thunderstorm
5/24/2000	Windham County	0	0	$0	Thunderstorm
6/2/2000	Fairfield County	0	0	$0	Thunderstorm
6/2/2000	Fairfield County	0	1	$0	Thunderstorm
6/2/2000	Hartford County	0	0	$0	Tornado
6/2/2000	Hartford County	0	0	$0	Thunderstorm
6/2/2000	Hartford County	0	0	$0	Thunderstorm
6/2/2000	Litchfield County	0	0	$140,661	Thunderstorm
6/2/2000	Litchfield County	0	0	$60,905	Thunderstorm
6/2/2000	Litchfield County	0	0	$1,450	Thunderstorm
6/2/2000	Litchfield County	0	0	$0	Thunderstorm
6/2/2000	Middlesex County	0	0	$0	Tornado
6/2/2000	Middlesex County	0	0	$0	Thunderstorm
6/2/2000	Middlesex County	0	0	$0	Thunderstorm
6/2/2000	New Haven County	1	0	$0	Thunderstorm
6/2/2000	New Haven County	0	0	$0	Thunderstorm
6/2/2000	New London County	0	0	$0	Thunderstorm
6/2/2000	New London County	0	0	$0	Thunderstorm
6/2/2000	Tolland County	0	0	$0	Thunderstorm
6/2/2000	Tolland County	0	0	$0	Flood
6/2/2000	Windham County	0	0	$0	Thunderstorm
6/6/2000	Fairfield County	0	0	$0	Thunderstorm
6/6/2000	Hartford County	0	0	$0	Thunderstorm
6/6/2000	Middlesex County	0	0	$0	Thunderstorm
6/6/2000	New Haven County	0	0	$0	Thunderstorm
6/6/2000	New London County	0	0	$0	Thunderstorm
6/7/2000	Litchfield County	0	0	$0	Flood
6/11/2000	Fairfield County	0	0	$0	Thunderstorm
6/11/2000	Fairfield County	0	0	$0	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
6/11/2000	Hartford County	0	8	$0	Thunderstorm
6/11/2000	Litchfield County	0	1	$0	Thunderstorm
6/11/2000	Litchfield County	0	0	$21,752	Thunderstorm
6/11/2000	Litchfield County	0	0	$87,007	Thunderstorm
6/11/2000	Litchfield County	0	0	$0	Thunderstorm
6/11/2000	Middlesex County	0	0	$0	Thunderstorm
6/11/2000	New Haven County	0	1	$0	Thunderstorm
6/11/2000	New Haven County	0	0	$0	Thunderstorm
6/11/2000	New Haven County	0	0	$0	Thunderstorm
6/11/2000	New London County	0	0	$0	Thunderstorm
6/11/2000	New London County	0	0	$0	Thunderstorm
6/27/2000	Hartford County	0	0	$0	Thunderstorm
6/27/2000	Middlesex County	0	0	$0	Thunderstorm
6/27/2000	Middlesex County	0	1	$0	Thunderstorm
6/27/2000	New Haven County	0	2	$0	Thunderstorm
6/27/2000	New Haven County	0	0	$0	Thunderstorm
6/27/2000	New Haven County	0	0	$0	Thunderstorm
7/15/2000	Fairfield County	0	0	$0	Flood
7/15/2000	Litchfield County	0	0	$0	Flood
7/15/2000	Litchfield County	0	0	$14,501	Flood
7/15/2000	New Haven County	0	0	$0	Flood
7/16/2000	Litchfield County	0	0	$0	Flood
7/26/2000	Fairfield County	0	0	$0	Thunderstorm
7/26/2000	Hartford County	0	0	$0	Thunderstorm
7/26/2000	Middlesex County	0	0	$0	Thunderstorm
7/26/2000	New Haven County	0	0	$0	Thunderstorm
8/10/2000	Hartford County	0	0	$0	Thunderstorm
8/10/2000	Tolland County	0	0	$0	Thunderstorm
8/10/2000	Windham County	0	0	$0	Thunderstorm
8/11/2000	Fairfield County	0	0	$8,700,662	Flood
8/11/2000	New Haven County	0	0	$0	Flood
8/12/2000	Fairfield County	0	0	$0	Flood
8/16/2000	Tolland County	0	0	$7,251	Tornado
9/2/2000	Fairfield County	0	0	$0	Flood
9/9/2000	Hartford County	0	12	$7,251	Thunderstorm
9/29/2000	Hartford County	0	0	$0	Winter
9/30/2000	Hartford County	0	0	$0	Winter
10/29/2000	Hartford County	0	0	$0	Winter
11/10/2000	Fairfield County	0	0	$0	Thunderstorm
11/10/2000	New Haven County	0	0	$0	Thunderstorm
11/25/2000	Hartford County	0	0	$0	Winter
11/26/2000	Hartford County	0	0	$0	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
11/26/2000	Tolland County	0	0	$0	Winter
11/26/2000	Windham County	0	0	$0	Winter
12/12/2000	Fairfield County	0	0	$0	Thunderstorm
12/12/2000	Fairfield County	0	0	$0	Thunderstorm
12/12/2000	Hartford County	0	0	$0	Thunderstorm
12/12/2000	Litchfield County	0	0	$159,512	Thunderstorm
12/12/2000	Middlesex County	0	0	$0	Thunderstorm
12/12/2000	Middlesex County	0	0	$0	Thunderstorm
12/12/2000	New Haven County	0	0	$0	Thunderstorm
12/12/2000	New Haven County	0	0	$0	Thunderstorm
12/12/2000	New London County	0	0	$0	Thunderstorm
12/12/2000	New London County	0	0	$0	Thunderstorm
12/12/2000	Tolland County	0	0	$0	Thunderstorm
12/12/2000	Windham County	0	0	$0	Thunderstorm
12/17/2000	Hartford County	0	0	$0	Thunderstorm
12/17/2000	Litchfield County	0	0	$72,506	Flood
12/17/2000	Litchfield County	0	0	$36,253	Thunderstorm
12/17/2000	Litchfield County	0	0	$108,758	Flood
12/17/2000	Middlesex County	0	0	$0	Thunderstorm
12/17/2000	New London County	0	0	$0	Thunderstorm
12/17/2000	Tolland County	0	0	$0	Thunderstorm
12/17/2000	Windham County	0	0	$0	Thunderstorm
12/19/2000	Hartford County	0	0	$0	Flood
12/30/2000	Fairfield County	0	0	$0	Winter
12/30/2000	Fairfield County	0	0	$0	Winter
12/30/2000	Hartford County	0	0	$0	Winter
12/30/2000	Litchfield County	0	0	$0	Winter
12/30/2000	Middlesex County	0	0	$0	Winter
12/30/2000	New Haven County	0	0	$0	Winter
12/30/2000	New Haven County	0	0	$0	Winter
12/30/2000	Tolland County	0	0	$0	Winter
12/30/2000	Windham County	0	0	$0	Winter
1/20/2001	Hartford County	0	0	$0	Winter
1/20/2001	Tolland County	0	0	$0	Winter
1/20/2001	Windham County	0	0	$0	Winter
1/21/2001	Fairfield County	0	0	$0	Winter
1/21/2001	Fairfield County	0	0	$0	Winter
1/21/2001	Litchfield County	0	0	$0	Winter
1/21/2001	Middlesex County	0	0	$0	Winter
1/21/2001	Middlesex County	0	0	$0	Winter
1/21/2001	New Haven County	0	0	$0	Winter
1/21/2001	New Haven County	0	0	$0	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
1/21/2001	New London County	0	0	$0	Winter
1/21/2001	New London County	0	0	$0	Winter
1/30/2001	Hartford County	0	0	$0	Winter
1/30/2001	Tolland County	0	0	$0	Winter
1/30/2001	Windham County	0	0	$0	Winter
2/5/2001	Fairfield County	0	0	$0	Winter
2/5/2001	Fairfield County	0	0	$0	Winter
2/5/2001	Hartford County	0	0	$0	Winter
2/5/2001	Litchfield County	0	0	$0	Winter
2/5/2001	Middlesex County	0	0	$0	Winter
2/5/2001	Middlesex County	0	0	$0	Winter
2/5/2001	New Haven County	0	0	$0	Winter
2/5/2001	New Haven County	0	0	$0	Winter
2/5/2001	New London County	0	0	$0	Winter
2/5/2001	Tolland County	0	0	$0	Winter
2/5/2001	Windham County	0	0	$0	Winter
2/10/2001	Hartford County	0	0	$0	Thunderstorm
2/10/2001	Tolland County	0	0	$0	Thunderstorm
2/10/2001	Windham County	0	0	$0	Thunderstorm
2/17/2001	Hartford County	0	0	$0	Thunderstorm
2/25/2001	Hartford County	0	0	$0	Winter
2/25/2001	Tolland County	0	0	$0	Winter
2/25/2001	Windham County	0	0	$0	Winter
3/5/2001	Fairfield County	0	0	$0	Winter
3/5/2001	Hartford County	0	0	$7,049,944	Winter
3/5/2001	Litchfield County	0	0	$0	Winter
3/5/2001	Middlesex County	0	0	$0	Winter
3/5/2001	New Haven County	0	0	$0	Winter
3/5/2001	New Haven County	0	0	$0	Winter
3/5/2001	New London County	0	0	$0	Winter
3/5/2001	Tolland County	0	0	$0	Winter
3/5/2001	Windham County	0	0	$0	Winter
3/6/2001	Fairfield County	0	0	$0	Winter
3/6/2001	Middlesex County	0	0	$0	Winter
3/9/2001	Fairfield County	0	0	$0	Winter
3/9/2001	Hartford County	0	0	$2,819,977	Winter
3/9/2001	Litchfield County	0	0	$0	Winter
3/9/2001	New Haven County	0	0	$0	Winter
3/9/2001	Tolland County	0	0	$0	Winter
3/9/2001	Windham County	0	0	$0	Winter
3/22/2001	Fairfield County	0	0	$0	Flood

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
3/22/2001	Hartford County	0	0	$0	Flood
3/22/2001	Middlesex County	0	0	$0	Flood
3/22/2001	New Haven County	0	0	$0	Flood
3/22/2001	New Haven County	0	0	$0	Flood
3/22/2001	New London County	0	0	$0	Flood
3/22/2001	New London County	0	0	$0	Flood
3/22/2001	New London County	0	0	$0	Flood
3/30/2001	Fairfield County	0	0	$0	Flood
3/30/2001	Hartford County	0	0	$0	Flood
3/30/2001	Middlesex County	0	0	$0	Flood
3/30/2001	New Haven County	0	0	$0	Flood
3/30/2001	New London County	0	0	$0	Flood
3/30/2001	New London County	0	0	$0	Flood
3/30/2001	New London County	0	0	$0	Flood
4/13/2001	Hartford County	0	0	$0	Flood
4/13/2001	Middlesex County	0	0	$0	Flood
4/23/2001	Hartford County	0	0	$0	Flood
4/23/2001	Middlesex County	0	0	$0	Flood
5/7/2001	Hartford County	0	0	$0	Winter
5/21/2001	Fairfield County	0	0	$0	Thunderstorm
5/21/2001	Fairfield County	0	0	$0	Thunderstorm
5/21/2001	Middlesex County	0	0	$0	Thunderstorm
5/21/2001	New Haven County	0	0	$0	Thunderstorm
5/21/2001	New London County	0	0	$0	Thunderstorm
5/29/2001	Fairfield County	0	0	$0	Thunderstorm
6/11/2001	Hartford County	0	0	$28,200	Thunderstorm
6/11/2001	Hartford County	0	0	$0	Thunderstorm
6/11/2001	Middlesex County	0	0	$0	Thunderstorm
6/11/2001	Middlesex County	0	0	$0	Thunderstorm
6/11/2001	New Haven County	0	0	$0	Thunderstorm
6/11/2001	New London County	0	0	$0	Thunderstorm
6/17/2001	Fairfield County	0	0	$0	Flood
6/17/2001	Litchfield County	0	0	$14,100	Flood
6/17/2001	Litchfield County	0	0	$16,920	Flood
6/17/2001	Litchfield County	0	0	$35,250	Flood
6/17/2001	Litchfield County	0	0	$77,549	Flood
6/17/2001	Litchfield County	0	0	$14,100	Flood
6/17/2001	Middlesex County	0	0	$0	Flood
6/17/2001	New Haven County	0	0	$0	Flood

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
6/17/2001	New London County	0	0	$0	Flood
6/17/2001	New London County	0	0	$0	Flood
6/17/2001	Windham County	0	0	$0	Flood
6/20/2001	Fairfield County	0	0	$0	Thunderstorm
6/20/2001	Hartford County	0	0	$14,100	Thunderstorm
6/20/2001	Hartford County	0	0	$0	Thunderstorm
6/20/2001	Hartford County	0	0	$0	Thunderstorm
6/20/2001	Hartford County	0	0	$0	Thunderstorm
6/20/2001	Tolland County	0	0	$0	Thunderstorm
6/23/2001	Hartford County	0	0	$28,200	Tornado
6/23/2001	Litchfield County	0	1	$211,498	Tornado
6/23/2001	Litchfield County	0	0	$352,497	Tornado
6/30/2001	Fairfield County	0	0	$0	Thunderstorm
6/30/2001	Fairfield County	0	0	$0	Thunderstorm
6/30/2001	Litchfield County	0	0	$105,749	Thunderstorm
6/30/2001	New Haven County	0	0	$0	Thunderstorm
7/1/2001	Hartford County	0	0	$0	Thunderstorm
7/1/2001	Litchfield County	0	0	$105,749	Tornado
7/1/2001	Litchfield County	0	0	$21,150	Thunderstorm
7/1/2001	Middlesex County	0	0	$0	Thunderstorm
7/1/2001	Middlesex County	0	2	$0	Thunderstorm
7/1/2001	New Haven County	0	0	$0	Thunderstorm
7/1/2001	New London County	0	0	$0	Thunderstorm
7/10/2001	Fairfield County	0	0	$0	Thunderstorm
7/10/2001	Litchfield County	0	0	$21,150	Thunderstorm
7/10/2001	Windham County	0	0	$0	Thunderstorm
7/10/2001	Windham County	0	0	$0	Thunderstorm
8/10/2001	Fairfield County	0	1	$0	Thunderstorm
8/10/2001	Fairfield County	0	0	$0	Thunderstorm
8/10/2001	Fairfield County	0	0	$0	Thunderstorm
8/10/2001	Fairfield County	0	0	$0	Thunderstorm
8/10/2001	Middlesex County	0	0	$0	Thunderstorm
8/10/2001	Middlesex County	0	0	$0	Thunderstorm
8/10/2001	New Haven County	0	1	$0	Thunderstorm
8/10/2001	New Haven County	0	0	$0	Thunderstorm
8/10/2001	New Haven County	0	0	$0	Thunderstorm
8/10/2001	Tolland County	0	0	$0	Thunderstorm
8/10/2001	Tolland County	0	0	$0	Thunderstorm
8/10/2001	Windham County	0	0	$0	Thunderstorm
8/10/2001	Windham County	0	0	$0	Thunderstorm
8/20/2001	Fairfield County	0	0	$0	Tornado
8/20/2001	Fairfield County	0	0	$0	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
8/20/2001	Middlesex County	0	0	$0	Flood
8/20/2001	New London County	0	0	$0	Flood
8/27/2001	Fairfield County	0	0	$0	Flood
8/27/2001	Fairfield County	0	0	$0	Flood
8/27/2001	Fairfield County	0	0	$0	Thunderstorm
8/28/2001	Hartford County	0	0	$0	Thunderstorm
8/28/2001	Litchfield County	0	0	$11,280	Thunderstorm
8/28/2001	New Haven County	0	0	$0	Thunderstorm
8/28/2001	New Haven County	0	0	$0	Thunderstorm
8/28/2001	Tolland County	0	0	$0	Thunderstorm
8/31/2001	Hartford County	0	0	$0	Thunderstorm
9/21/2001	New Haven County	0	0	$0	Thunderstorm
9/28/2001	New London County	0	0	$0	Flood
10/17/2001	Litchfield County	0	0	$11,280	Thunderstorm
1/6/2002	Litchfield County	0	0	$0	Winter
4/1/2002	Fairfield County	0	0	$0	Drought
4/1/2002	Fairfield County	0	0	$0	Drought
4/1/2002	Middlesex County	0	0	$0	Drought
4/1/2002	Middlesex County	0	0	$0	Drought
4/1/2002	New Haven County	0	0	$0	Drought
4/1/2002	New Haven County	0	0	$0	Drought
4/1/2002	New London County	0	0	$0	Drought
4/1/2002	New London County	0	0	$0	Drought
5/1/2002	Fairfield County	0	0	$0	Drought
5/1/2002	Fairfield County	0	0	$0	Drought
5/1/2002	Middlesex County	0	0	$0	Drought
5/1/2002	Middlesex County	0	0	$0	Drought
5/1/2002	New Haven County	0	0	$0	Drought
5/1/2002	New Haven County	0	0	$0	Drought
5/1/2002	New London County	0	0	$0	Drought
5/1/2002	New London County	0	0	$0	Drought
5/20/2002	Litchfield County	0	0	$0	Winter
5/24/2002	Fairfield County	1	0	$0	Thunderstorm
5/27/2002	Litchfield County	0	0	$0	Thunderstorm
5/28/2002	Fairfield County	0	0	$0	Thunderstorm
5/31/2002	Fairfield County	0	0	$0	Tornado
5/31/2002	Fairfield County	0	0	$0	Thunderstorm
5/31/2002	Hartford County	0	0	$5,552	Thunderstorm
5/31/2002	Hartford County	0	0	$2,776	Thunderstorm
5/31/2002	Hartford County	0	0	$0	Thunderstorm
5/31/2002	Hartford County	0	0	$5,552	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
5/31/2002	Litchfield County	0	0	$12,492	Thunderstorm
5/31/2002	Litchfield County	0	0	$13,880	Thunderstorm
5/31/2002	Litchfield County	0	0	$11,104	Thunderstorm
5/31/2002	Litchfield County	0	0	$0	Thunderstorm
5/31/2002	Litchfield County	0	0	$0	Thunderstorm
5/31/2002	Litchfield County	0	0	$0	Thunderstorm
5/31/2002	Litchfield County	0	0	$0	Thunderstorm
5/31/2002	Litchfield County	0	0	$0	Thunderstorm
5/31/2002	Litchfield County	0	0	$0	Thunderstorm
5/31/2002	Litchfield County	0	0	$0	Thunderstorm
5/31/2002	Litchfield County	0	0	$0	Thunderstorm
5/31/2002	Litchfield County	0	0	$0	Thunderstorm
5/31/2002	Litchfield County	0	0	$13,880	Thunderstorm
5/31/2002	New Haven County	0	0	$0	Tornado
5/31/2002	New Haven County	0	0	$0	Tornado
5/31/2002	New Haven County	0	0	$0	Thunderstorm
5/31/2002	New Haven County	0	0	$0	Thunderstorm
5/31/2002	New London County	0	0	$0	Thunderstorm
5/31/2002	Tolland County	0	0	$2,776	Thunderstorm
5/31/2002	Tolland County	0	0	$0	Thunderstorm
5/31/2002	Windham County	0	0	$2,776	Thunderstorm
5/31/2002	Windham County	0	0	$0	Thunderstorm
6/1/2002	Fairfield County	0	0	$0	Drought
6/1/2002	Fairfield County	0	0	$0	Drought
6/1/2002	Middlesex County	0	0	$0	Drought
6/1/2002	Middlesex County	0	0	$0	Drought
6/1/2002	New Haven County	0	0	$0	Drought
6/1/2002	New Haven County	0	0	$0	Drought
6/1/2002	New London County	0	0	$0	Drought
6/1/2002	New London County	0	0	$0	Drought
6/5/2002	Litchfield County	0	0	$55,522	Tornado
6/6/2002	Hartford County	0	0	$2,776	Thunderstorm
6/6/2002	New London County	0	0	$0	Thunderstorm
6/6/2002	New London County	0	0	$13,880	Thunderstorm
6/16/2002	Fairfield County	0	0	$0	Thunderstorm
6/16/2002	Hartford County	0	0	$0	Thunderstorm
6/16/2002	Hartford County	0	0	$0	Thunderstorm
6/16/2002	Litchfield County	0	0	$13,880	Tornado
6/16/2002	Litchfield County	0	0	$0	Thunderstorm
6/16/2002	Litchfield County	0	0	$0	Thunderstorm
6/16/2002	Litchfield County	0	0	$0	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
6/16/2002	Litchfield County	0	0	$0	Thunderstorm
6/16/2002	Middlesex County	0	0	$0	Thunderstorm
6/16/2002	New Haven County	0	0	$0	Thunderstorm
6/16/2002	New Haven County	0	0	$0	Thunderstorm
6/16/2002	New Haven County	0	0	$0	Thunderstorm
6/16/2002	New London County	0	0	$0	Thunderstorm
6/16/2002	New London County	0	0	$0	Tornado
6/16/2002	Tolland County	0	0	$0	Thunderstorm
6/26/2002	Fairfield County	0	0	$0	Thunderstorm
6/26/2002	Litchfield County	0	0	$13,880	Thunderstorm
6/26/2002	New Haven County	0	0	$0	Thunderstorm
7/5/2002	Litchfield County	0	0	$0	Wildfire
7/9/2002	Fairfield County	0	0	$0	Thunderstorm
7/15/2002	Hartford County	0	1	$27,761	Thunderstorm
7/19/2002	Fairfield County	0	0	$0	Flood
7/19/2002	Fairfield County	0	0	$0	Thunderstorm
7/19/2002	Hartford County	0	0	$2,776	Thunderstorm
7/19/2002	Hartford County	0	0	$0	Thunderstorm
7/19/2002	Litchfield County	0	0	$6,940	Thunderstorm
7/19/2002	New Haven County	0	0	$0	Thunderstorm
7/19/2002	New London County	0	0	$0	Thunderstorm
7/23/2002	Fairfield County	0	0	$0	Thunderstorm
7/23/2002	Hartford County	0	0	$6,940	Thunderstorm
7/23/2002	Litchfield County	0	0	$34,701	Thunderstorm
7/23/2002	Litchfield County	0	0	$6,940	Thunderstorm
7/23/2002	Tolland County	0	0	$4,164	Thunderstorm
8/2/2002	Fairfield County	0	0	$0	Thunderstorm
8/2/2002	Fairfield County	0	0	$0	Thunderstorm
8/2/2002	Fairfield County	0	0	$0	Thunderstorm
8/2/2002	Fairfield County	0	0	$0	Thunderstorm
8/2/2002	Hartford County	0	0	$6,940	Thunderstorm
8/2/2002	Hartford County	0	0	$6,940	Thunderstorm
8/2/2002	Hartford County	0	0	$2,776	Thunderstorm
8/2/2002	Hartford County	0	0	$2,776	Thunderstorm
8/2/2002	Litchfield County	0	0	$0	Thunderstorm
8/2/2002	New Haven County	0	0	$0	Thunderstorm
8/2/2002	New Haven County	0	0	$0	Thunderstorm
8/2/2002	Tolland County	0	0	$2,776	Thunderstorm
8/2/2002	Windham County	0	0	$2,776	Thunderstorm
8/5/2002	Litchfield County	0	0	$0	Thunderstorm
8/8/2002	Litchfield County	0	0	$13,880	Thunderstorm
8/16/2002	Fairfield County	0	0	$0	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
8/16/2002	Fairfield County	0	0	$0	Thunderstorm
8/16/2002	Windham County	0	0	$2,776	Thunderstorm
8/29/2002	Fairfield County	0	0	$0	Flood
9/1/2002	New Haven County	0	0	$0	Thunderstorm
9/2/2002	Fairfield County	0	0	$0	Flood
9/4/2002	Fairfield County	0	0	$0	Thunderstorm
9/4/2002	Fairfield County	0	0	$0	Thunderstorm
9/11/2002	Fairfield County	0	0	$0	Thunderstorm
9/11/2002	Fairfield County	1	0	$0	Thunderstorm
9/11/2002	Litchfield County	0	0	$27,761	Thunderstorm
9/11/2002	Middlesex County	0	0	$0	Thunderstorm
9/11/2002	Middlesex County	0	0	$0	Thunderstorm
9/11/2002	New Haven County	0	0	$0	Thunderstorm
9/11/2002	New Haven County	0	0	$0	Thunderstorm
9/11/2002	New London County	0	0	$0	Thunderstorm
9/11/2002	New London County	0	0	$0	Thunderstorm
9/26/2002	Fairfield County	0	0	$0	Thunderstorm
9/26/2002	Middlesex County	0	0	$0	Thunderstorm
9/26/2002	New Haven County	0	0	$0	Thunderstorm
9/26/2002	New London County	0	0	$0	Thunderstorm
10/11/2002	Fairfield County	0	0	$0	Thunderstorm
10/11/2002	New Haven County	0	0	$0	Thunderstorm
10/15/2002	Litchfield County	0	0	$0	Winter
11/16/2002	Hartford County	0	0	$2,776,087	Winter
11/16/2002	Litchfield County	0	0	$138,804	Winter
11/16/2002	Tolland County	0	0	$694,022	Winter
11/18/2002	Hartford County	0	0	$34,701	Thunderstorm
11/27/2002	Fairfield County	0	0	$0	Winter
11/27/2002	Hartford County	0	0	$0	Winter
11/27/2002	Litchfield County	0	0	$0	Winter
11/27/2002	Middlesex County	0	0	$0	Winter
11/27/2002	New Haven County	0	0	$0	Winter
11/27/2002	New London County	0	0	$0	Winter
11/27/2002	Tolland County	0	0	$0	Winter
11/27/2002	Windham County	0	0	$0	Winter
12/5/2002	Fairfield County	0	0	$0	Winter
12/5/2002	Fairfield County	0	0	$0	Winter
12/5/2002	Hartford County	0	0	$0	Winter
12/5/2002	Middlesex County	0	0	$0	Winter
12/5/2002	Middlesex County	0	0	$0	Winter
12/5/2002	New Haven County	0	0	$0	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
12/5/2002	New Haven County	0	0	$0	Winter
12/5/2002	New London County	0	0	$0	Winter
12/5/2002	New London County	0	0	$0	Winter
12/5/2002	Tolland County	0	0	$0	Winter
12/5/2002	Windham County	0	0	$0	Winter
12/25/2002	Fairfield County	0	0	$0	Winter
12/25/2002	Fairfield County	0	0	$0	Winter
12/25/2002	Hartford County	0	0	$20,821	Winter
12/25/2002	Litchfield County	0	0	$0	Winter
12/25/2002	New Haven County	0	0	$0	Winter
1/3/2003	Fairfield County	0	0	$0	Winter
1/3/2003	Fairfield County	0	0	$0	Winter
1/3/2003	Hartford County	0	0	$0	Winter
1/3/2003	Litchfield County	0	0	$0	Winter
1/3/2003	New Haven County	0	0	$0	Winter
1/3/2003	Tolland County	0	0	$0	Winter
1/3/2003	Windham County	0	0	$0	Winter
2/7/2003	Fairfield County	0	0	$0	Winter
2/7/2003	Fairfield County	0	0	$0	Winter
2/7/2003	Hartford County	0	0	$0	Winter
2/7/2003	Middlesex County	0	0	$0	Winter
2/7/2003	Middlesex County	0	0	$0	Winter
2/7/2003	New Haven County	0	0	$0	Winter
2/7/2003	New Haven County	0	0	$0	Winter
2/7/2003	New London County	0	0	$0	Winter
2/7/2003	New London County	0	0	$0	Winter
2/7/2003	Tolland County	0	0	$0	Winter
2/7/2003	Windham County	0	0	$0	Winter
2/17/2003	Fairfield County	0	0	$0	Winter
2/17/2003	Fairfield County	0	0	$0	Winter
2/17/2003	Hartford County	0	0	$0	Winter
2/17/2003	Litchfield County	0	0	$0	Winter
2/17/2003	Middlesex County	0	0	$0	Winter
2/17/2003	Middlesex County	0	0	$0	Winter
2/17/2003	New Haven County	0	0	$0	Winter
2/17/2003	New Haven County	0	0	$0	Winter
2/17/2003	New London County	0	0	$0	Winter
2/17/2003	New London County	0	0	$0	Winter
2/17/2003	Tolland County	0	0	$0	Winter
2/17/2003	Windham County	0	0	$0	Winter
2/23/2003	Hartford County	0	0	$20,357	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
3/6/2003	Fairfield County	0	0	$0	Winter
3/6/2003	Fairfield County	0	0	$0	Winter
3/6/2003	Hartford County	0	0	$67,856	Winter
3/6/2003	Litchfield County	0	0	$0	Winter
3/6/2003	Middlesex County	0	0	$0	Winter
3/6/2003	Middlesex County	0	0	$0	Winter
3/6/2003	New Haven County	0	0	$0	Winter
3/6/2003	New Haven County	0	0	$0	Winter
3/6/2003	New London County	0	0	$0	Winter
3/6/2003	New London County	0	0	$0	Winter
3/6/2003	Tolland County	0	0	$67,856	Winter
3/6/2003	Windham County	0	0	$67,856	Winter
3/21/2003	Litchfield County	0	0	$33,928	Flood
3/21/2003	Litchfield County	0	0	$0	Flood
5/18/2003	Litchfield County	0	0	$0	Winter
5/18/2003	Litchfield County	0	0	$0	Winter
5/26/2003	Hartford County	0	0	$0	Thunderstorm
5/26/2003	Windham County	0	0	$0	Thunderstorm
5/28/2003	Hartford County	0	0	$20,357	Thunderstorm
5/28/2003	Hartford County	0	0	$27,142	Flood
5/28/2003	Hartford County	0	0	$0	Thunderstorm
5/28/2003	Hartford County	0	0	$0	Thunderstorm
5/28/2003	New Haven County	0	0	$0	Thunderstorm
6/30/2003	New Haven County	0	0	$0	Thunderstorm
7/18/2003	Windham County	0	0	$0	Thunderstorm
7/21/2003	Litchfield County	0	0	$1,357	Thunderstorm
7/22/2003	Windham County	0	0	$6,786	Thunderstorm
7/22/2003	Windham County	0	0	$0	Thunderstorm
8/4/2003	Litchfield County	0	0	$0	Flood
8/8/2003	New Haven County	0	0	$0	Flood
8/8/2003	New London County	0	0	$0	Flood
8/13/2003	Hartford County	0	0	$33,928	Thunderstorm
8/13/2003	New Haven County	0	0	$0	Flood
8/16/2003	Hartford County	0	0	$0	Thunderstorm
8/16/2003	Hartford County	0	0	$0	Thunderstorm
8/16/2003	Litchfield County	0	0	$0	Thunderstorm
8/16/2003	New Haven County	0	0	$0	Thunderstorm
8/16/2003	New Haven County	0	0	$0	Flood
8/17/2003	Fairfield County	0	0	$0	Flood
8/17/2003	Fairfield County	0	0	$0	Thunderstorm
8/17/2003	New Haven County	0	0	$0	Thunderstorm
8/22/2003	Fairfield County	0	0	$0	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
9/23/2003	Litchfield County	0	0	$0	Thunderstorm
9/23/2003	Litchfield County	0	0	$0	Thunderstorm
9/28/2003	Hartford County	0	0	$33,928	Flood
9/28/2003	Middlesex County	0	0	$0	Thunderstorm
9/28/2003	New Haven County	0	0	$0	Flood
9/28/2003	New Haven County	0	0	$0	Thunderstorm
10/3/2003	Litchfield County	0	0	$0	Winter
10/3/2003	Litchfield County	0	0	$0	Winter
10/15/2003	Fairfield County	0	0	$135,711	Thunderstorm
10/15/2003	Litchfield County	0	0	$0	Thunderstorm
10/27/2003	Fairfield County	0	0	$0	Thunderstorm
10/27/2003	Hartford County	0	0	$47,499	Thunderstorm
10/27/2003	New Haven County	0	0	$0	Thunderstorm
10/27/2003	New Haven County	0	0	$0	Thunderstorm
10/27/2003	Tolland County	0	0	$33,928	Thunderstorm
10/29/2003	Litchfield County	0	0	$0	Flood
10/29/2003	New Haven County	0	0	$0	Thunderstorm
10/30/2003	Litchfield County	0	0	$0	Flood
10/30/2003	Litchfield County	0	0	$0	Flood
11/13/2003	Fairfield County	0	0	$0	Thunderstorm
11/13/2003	Fairfield County	0	0	$0	Thunderstorm
11/13/2003	Hartford County	0	1	$67,856	Thunderstorm
11/13/2003	Litchfield County	0	0	$0	Thunderstorm
11/13/2003	New Haven County	0	0	$0	Thunderstorm
11/13/2003	Tolland County	0	0	$67,856	Thunderstorm
11/13/2003	Windham County	0	0	$67,856	Thunderstorm
12/5/2003	Fairfield County	0	0	$0	Winter
12/5/2003	Hartford County	0	0	$0	Winter
12/5/2003	New London County	0	0	$0	Winter
12/5/2003	Tolland County	0	0	$0	Winter
12/5/2003	Windham County	0	0	$0	Winter
12/6/2003	Fairfield County	0	0	$0	Winter
12/6/2003	Litchfield County	0	0	$0	Winter
12/6/2003	Litchfield County	0	0	$0	Winter
12/6/2003	Middlesex County	0	0	$0	Winter
12/6/2003	Middlesex County	0	0	$0	Winter
12/6/2003	New Haven County	0	0	$0	Winter
12/6/2003	New Haven County	0	0	$0	Winter
12/6/2003	New London County	0	0	$0	Winter
12/11/2003	Litchfield County	0	0	$0	Flood
12/12/2003	Litchfield County	0	0	$0	Flood
12/14/2003	Fairfield County	0	0	$0	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
12/14/2003	Litchfield County	0	0	$0	Winter
12/14/2003	Litchfield County	0	0	$0	Winter
12/14/2003	New Haven County	0	0	$0	Winter
12/17/2003	New Haven County	0	0	$0	Flood
12/18/2003	Litchfield County	0	0	$0	Flood
12/18/2003	Litchfield County	0	0	$0	Flood
12/18/2003	Litchfield County	0	0	$0	Flood
12/19/2003	Hartford County	0	0	$0	Flood
12/20/2003	Hartford County	0	0	$0	Flood
12/24/2003	Litchfield County	0	0	$0	Flood
12/25/2003	Litchfield County	0	0	$0	Flood
12/25/2003	Litchfield County	0	0	$0	Flood
12/26/2003	Hartford County	0	0	$0	Flood
12/26/2003	Hartford County	0	0	$0	Flood
1/15/2004	Fairfield County	0	0	$0	Winter
1/15/2004	Fairfield County	0	0	$0	Winter
1/15/2004	Litchfield County	0	0	$0	Winter
1/15/2004	Litchfield County	0	0	$0	Winter
1/15/2004	Middlesex County	0	0	$0	Winter
1/15/2004	Middlesex County	0	0	$0	Winter
1/15/2004	New Haven County	0	0	$0	Winter
1/15/2004	New Haven County	0	0	$0	Winter
1/15/2004	New London County	0	0	$0	Winter
1/15/2004	New London County	0	0	$0	Winter
1/18/2004	Fairfield County	0	0	$0	Winter
1/18/2004	New Haven County	0	0	$0	Winter
1/27/2004	Hartford County	0	0	$0	Winter
1/27/2004	Tolland County	0	0	$0	Winter
1/27/2004	Windham County	0	0	$0	Winter
1/28/2004	Fairfield County	0	0	$0	Winter
1/28/2004	Fairfield County	0	0	$0	Winter
1/28/2004	Litchfield County	0	0	$0	Winter
1/28/2004	Litchfield County	0	0	$0	Winter
1/28/2004	Middlesex County	0	0	$0	Winter
1/28/2004	Middlesex County	0	0	$0	Winter
1/28/2004	New Haven County	0	0	$0	Winter
1/28/2004	New Haven County	0	0	$0	Winter
1/28/2004	New London County	0	0	$0	Winter
1/28/2004	New London County	0	0	$0	Winter
3/19/2004	Fairfield County	0	0	$0	Winter
4/2/2004	Hartford County	0	0	$0	Flood

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
4/2/2004	Hartford County	0	0	$0	Flood
4/2/2004	Hartford County	0	0	$0	Flood
4/13/2004	New London County	0	0	$0	Flood
5/5/2004	Litchfield County	0	0	$0	Winter
5/18/2004	Litchfield County	0	0	$0	Thunderstorm
5/23/2004	Fairfield County	0	0	$0	Thunderstorm
5/23/2004	Fairfield County	0	0	$0	Thunderstorm
5/23/2004	Hartford County	0	0	$6,610	Thunderstorm
5/23/2004	Hartford County	0	0	$0	Thunderstorm
5/23/2004	Hartford County	0	0	$0	Thunderstorm
5/23/2004	Hartford County	0	0	$0	Thunderstorm
5/23/2004	Hartford County	0	0	$0	Thunderstorm
5/23/2004	Hartford County	0	0	$0	Thunderstorm
5/23/2004	Hartford County	0	0	$0	Thunderstorm
5/23/2004	Litchfield County	0	0	$0	Thunderstorm
5/23/2004	Litchfield County	0	0	$0	Thunderstorm
5/23/2004	Litchfield County	0	0	$0	Thunderstorm
5/23/2004	Litchfield County	0	0	$0	Thunderstorm
5/23/2004	Tolland County	0	0	$13,219	Thunderstorm
5/23/2004	Tolland County	0	0	$0	Thunderstorm
5/23/2004	Tolland County	0	0	$0	Thunderstorm
5/24/2004	Fairfield County	0	0	$0	Thunderstorm
6/9/2004	Litchfield County	0	0	$0	Thunderstorm
7/2/2004	Hartford County	0	0	$0	Thunderstorm
7/2/2004	Litchfield County	0	0	$0	Thunderstorm
7/2/2004	Litchfield County	0	0	$0	Thunderstorm
7/2/2004	Middlesex County	0	0	$0	Thunderstorm
7/2/2004	New Haven County	0	0	$0	Thunderstorm
7/2/2004	New London County	0	0	$0	Thunderstorm
7/2/2004	New London County	0	0	$0	Thunderstorm
7/2/2004	New London County	0	0	$0	Thunderstorm
7/2/2004	Windham County	0	0	$0	Thunderstorm
7/5/2004	Litchfield County	0	0	$0	Thunderstorm
7/17/2004	Hartford County	0	0	$13,219	Thunderstorm
7/17/2004	Hartford County	0	0	$0	Thunderstorm
8/11/2004	Litchfield County	0	0	$0	Thunderstorm
8/20/2004	Fairfield County	0	0	$0	Thunderstorm
8/20/2004	Litchfield County	0	0	$1,322	Thunderstorm
8/20/2004	Litchfield County	0	0	$0	Thunderstorm
8/20/2004	Litchfield County	0	0	$0	Thunderstorm
8/20/2004	Litchfield County	0	0	$0	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
8/20/2004	Litchfield County	0	0	$0	Thunderstorm
8/20/2004	New Haven County	0	0	$0	Thunderstorm
8/21/2004	Fairfield County	0	0	$0	Flood
8/21/2004	Fairfield County	0	0	$0	Thunderstorm
8/21/2004	Fairfield County	0	0	$0	Thunderstorm
8/21/2004	Hartford County	0	0	$6,610	Thunderstorm
8/21/2004	Litchfield County	0	0	$0	Flood
8/21/2004	Litchfield County	0	0	$0	Thunderstorm
8/21/2004	New Haven County	0	0	$0	Thunderstorm
8/21/2004	New Haven County	0	0	$0	Thunderstorm
8/21/2004	New Haven County	0	0	$0	Thunderstorm
8/21/2004	New Haven County	0	0	$0	Thunderstorm
8/21/2004	New Haven County	0	0	$0	Flood
8/21/2004	New London County	0	0	$0	Thunderstorm
8/21/2004	New London County	0	0	$0	Thunderstorm
8/21/2004	New London County	0	0	$0	Thunderstorm
8/21/2004	Tolland County	0	0	$0	Thunderstorm
8/21/2004	Windham County	0	0	$6,610	Thunderstorm
8/21/2004	Windham County	0	2	$0	Thunderstorm
9/8/2004	Fairfield County	0	0	$0	Flood
9/8/2004	Fairfield County	0	0	$0	Flood
9/18/2004	Fairfield County	0	0	$0	Flood
9/18/2004	Litchfield County	0	0	$0	Flood
9/18/2004	New Haven County	0	0	$0	Flood
10/6/2004	Litchfield County	0	0	$0	Winter
10/6/2004	Litchfield County	0	0	$0	Winter
12/1/2004	Hartford County	0	0	$26,438	Thunderstorm
12/1/2004	Windham County	0	0	$33,048	Thunderstorm
12/23/2004	Hartford County	0	0	$33,048	Thunderstorm
1/5/2005	Hartford County	0	0	$0	Winter
1/5/2005	Tolland County	0	0	$0	Winter
1/5/2005	Windham County	0	0	$0	Winter
1/6/2005	Fairfield County	0	0	$0	Winter
1/6/2005	Litchfield County	0	0	$0	Winter
1/6/2005	Litchfield County	0	0	$0	Winter
1/6/2005	Middlesex County	0	0	$0	Winter
1/6/2005	Middlesex County	0	0	$0	Winter
1/6/2005	New Haven County	0	0	$0	Winter
1/6/2005	New London County	0	0	$0	Winter
1/6/2005	New London County	0	0	$0	Winter
1/8/2005	Hartford County	0	0	$63,930	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
1/8/2005	Tolland County	0	0	$63,930	Winter
1/8/2005	Windham County	0	0	$63,930	Winter
1/14/2005	Litchfield County	0	0	$0	Flood
1/14/2005	Litchfield County	0	0	$0	Flood
1/14/2005	Litchfield County	0	0	$0	Flood
1/14/2005	Litchfield County	0	0	$0	Flood
1/22/2005	Fairfield County	0	0	$0	Winter
1/22/2005	Hartford County	0	0	$0	Winter
1/22/2005	Middlesex County	0	0	$0	Winter
1/22/2005	New Haven County	0	0	$0	Winter
1/22/2005	New Haven County	0	0	$0	Winter
1/22/2005	New London County	0	0	$0	Winter
1/22/2005	New London County	0	0	$0	Winter
1/22/2005	Tolland County	0	0	$0	Winter
1/22/2005	Windham County	0	0	$0	Winter
1/23/2005	Fairfield County	0	0	$0	Winter
1/23/2005	Litchfield County	1	0	$0	Winter
1/23/2005	Litchfield County	0	0	$0	Winter
1/23/2005	Middlesex County	0	0	$0	Winter
2/21/2005	Fairfield County	0	0	$0	Winter
2/21/2005	Fairfield County	0	0	$0	Winter
2/24/2005	Tolland County	0	0	$0	Winter
2/24/2005	Windham County	0	0	$0	Winter
2/25/2005	Fairfield County	0	0	$0	Winter
2/25/2005	Middlesex County	0	0	$0	Winter
2/25/2005	Middlesex County	0	0	$0	Winter
2/25/2005	New Haven County	0	0	$0	Winter
2/25/2005	New London County	0	0	$0	Winter
2/25/2005	New London County	0	0	$0	Winter
3/1/2005	Fairfield County	0	0	$0	Winter
3/1/2005	Fairfield County	0	0	$0	Winter
3/1/2005	Hartford County	0	0	$0	Winter
3/1/2005	Litchfield County	0	0	$0	Winter
3/1/2005	Litchfield County	0	0	$0	Winter
3/1/2005	Tolland County	0	0	$0	Winter
3/1/2005	Windham County	0	0	$0	Winter
3/8/2005	Fairfield County	0	0	$0	Winter
3/8/2005	Fairfield County	0	0	$0	Winter
3/8/2005	Hartford County	0	0	$0	Winter
3/8/2005	Hartford County	0	0	$0	Thunderstorm
3/8/2005	Middlesex County	0	0	$0	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
3/8/2005	Middlesex County	0	0	$0	Winter
3/8/2005	New Haven County	0	0	$0	Winter
3/8/2005	New Haven County	0	0	$0	Winter
3/8/2005	New London County	0	0	$0	Winter
3/8/2005	New London County	0	0	$0	Winter
3/8/2005	Windham County	0	1	$57,537	Thunderstorm
3/12/2005	Litchfield County	0	0	$0	Winter
3/12/2005	Litchfield County	0	0	$0	Winter
3/12/2005	New Haven County	0	0	$0	Winter
3/12/2005	New Haven County	0	0	$0	Winter
3/23/2005	Hartford County	0	0	$0	Winter
3/23/2005	Windham County	0	0	$0	Winter
3/24/2005	Fairfield County	0	0	$0	Winter
3/24/2005	Litchfield County	0	0	$0	Winter
3/24/2005	Middlesex County	0	0	$0	Winter
3/24/2005	New Haven County	0	0	$0	Winter
3/24/2005	New London County	0	0	$0	Winter
3/28/2005	Fairfield County	0	0	$0	Thunderstorm
3/28/2005	Litchfield County	0	0	$0	Flood
3/28/2005	Middlesex County	0	0	$0	Thunderstorm
3/28/2005	New Haven County	0	0	$0	Thunderstorm
3/28/2005	New London County	0	0	$0	Thunderstorm
3/29/2005	Litchfield County	0	0	$0	Flood
3/29/2005	Litchfield County	0	0	$0	Flood
3/29/2005	Litchfield County	0	0	$0	Flood
3/29/2005	New Haven County	0	0	$0	Flood
3/31/2005	Hartford County	0	0	$0	Flood
4/2/2005	Fairfield County	0	0	$0	Thunderstorm
4/2/2005	Middlesex County	0	0	$0	Thunderstorm
4/2/2005	New Haven County	0	0	$0	Thunderstorm
4/2/2005	New London County	0	0	$0	Thunderstorm
4/28/2005	Fairfield County	0	0	$0	Thunderstorm
5/5/2005	Litchfield County	0	0	$0	Winter
5/13/2005	Litchfield County	0	0	$0	Winter
5/27/2005	Fairfield County	0	0	$0	Thunderstorm
5/27/2005	Hartford County	0	0	$63,930	Thunderstorm
5/27/2005	Hartford County	0	0	$25,572	Thunderstorm
5/27/2005	Litchfield County	0	0	$0	Thunderstorm
5/27/2005	Litchfield County	0	0	$0	Thunderstorm
5/27/2005	Litchfield County	0	0	$0	Thunderstorm
5/29/2005	Fairfield County	0	0	$0	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
5/29/2005	Fairfield County	0	0	$0	Thunderstorm
5/29/2005	Fairfield County	0	0	$0	Thunderstorm
5/29/2005	Fairfield County	0	0	$0	Thunderstorm
5/31/2005	New Haven County	0	1	$0	Thunderstorm
5/31/2005	New London County	0	1	$0	Thunderstorm
6/1/2005	New London County	0	1	$0	Thunderstorm
6/6/2005	Fairfield County	0	0	$0	Thunderstorm
6/6/2005	Litchfield County	0	0	$0	Thunderstorm
6/22/2005	Fairfield County	0	0	$0	Thunderstorm
6/29/2005	Fairfield County	0	0	$0	Flood
6/29/2005	Fairfield County	0	0	$0	Flood
6/29/2005	Fairfield County	0	0	$0	Thunderstorm
7/1/2005	Fairfield County	0	0	$0	Thunderstorm
7/1/2005	Litchfield County	0	0	$0	Thunderstorm
7/15/2005	Hartford County	0	0	$6,393	Flood
7/18/2005	Fairfield County	0	0	$0	Flood
7/18/2005	Fairfield County	0	0	$0	Thunderstorm
7/18/2005	Litchfield County	0	0	$0	Thunderstorm
7/19/2005	Middlesex County	0	0	$0	Thunderstorm
7/19/2005	Middlesex County	0	0	$0	Thunderstorm
7/19/2005	New London County	0	0	$0	Thunderstorm
7/19/2005	Windham County	0	0	$6,393	Thunderstorm
7/22/2005	Hartford County	0	0	$6,393	Thunderstorm
7/22/2005	Litchfield County	0	0	$0	Thunderstorm
7/22/2005	Tolland County	0	0	$6,393	Thunderstorm
7/27/2005	Fairfield County	0	0	$0	Thunderstorm
7/27/2005	Hartford County	0	0	$12,786	Thunderstorm
7/27/2005	Hartford County	0	0	$25,572	Thunderstorm
7/27/2005	Hartford County	0	0	$12,786	Thunderstorm
7/27/2005	Hartford County	0	0	$6,393	Thunderstorm
7/27/2005	Hartford County	0	0	$25,572	Thunderstorm
7/27/2005	Hartford County	0	0	$25,572	Flood
7/27/2005	Litchfield County	0	0	$0	Thunderstorm
7/27/2005	Litchfield County	0	0	$0	Thunderstorm
7/27/2005	Middlesex County	0	0	$0	Thunderstorm
7/27/2005	Middlesex County	0	0	$0	Thunderstorm
7/27/2005	New Haven County	0	0	$0	Thunderstorm
7/27/2005	New London County	0	0	$0	Thunderstorm
7/27/2005	New London County	0	0	$0	Thunderstorm
7/27/2005	Tolland County	0	0	$31,965	Thunderstorm
7/31/2005	Litchfield County	0	0	$0	Flood

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
8/5/2005	Hartford County	0	0	$6,393	Thunderstorm
8/5/2005	Litchfield County	0	0	$0	Thunderstorm
8/5/2005	Tolland County	0	0	$6,393	Thunderstorm
8/5/2005	Tolland County	0	0	$6,393	Thunderstorm
8/5/2005	Tolland County	0	0	$6,393	Thunderstorm
8/5/2005	Windham County	0	0	$6,393	Thunderstorm
8/5/2005	Windham County	0	0	$6,393	Thunderstorm
8/12/2005	Fairfield County	0	0	$0	Thunderstorm
8/13/2005	Tolland County	0	0	$12,786	Thunderstorm
8/13/2005	Tolland County	0	0	$19,179	Thunderstorm
8/13/2005	Windham County	0	0	$6,393	Thunderstorm
8/14/2005	Fairfield County	0	0	$0	Flood
8/14/2005	Fairfield County	0	0	$0	Thunderstorm
8/14/2005	Hartford County	0	0	$12,786	Thunderstorm
9/15/2005	Fairfield County	0	0	$0	Flood
9/15/2005	New London County	0	0	$0	Flood
9/17/2005	Hartford County	0	0	$31,965	Thunderstorm
9/17/2005	Hartford County	0	0	$6,393	Thunderstorm
9/17/2005	Hartford County	0	0	$6,393	Thunderstorm
9/17/2005	Hartford County	0	0	$6,393	Thunderstorm
9/17/2005	New Haven County	0	0	$0	Thunderstorm
9/17/2005	New Haven County	0	0	$0	Flood
9/17/2005	New London County	0	0	$0	Thunderstorm
9/17/2005	New London County	0	2	$0	Thunderstorm
9/17/2005	Tolland County	0	0	$8,950	Thunderstorm
9/29/2005	Hartford County	0	0	$38,358	Thunderstorm
9/29/2005	Litchfield County	0	0	$0	Thunderstorm
9/29/2005	Litchfield County	0	0	$0	Thunderstorm
9/29/2005	New Haven County	0	0	$0	Thunderstorm
9/29/2005	Tolland County	0	0	$25,572	Thunderstorm
9/29/2005	Windham County	0	0	$12,786	Thunderstorm
10/8/2005	Fairfield County	0	0	$0	Flood
10/8/2005	Fairfield County	0	0	$0	Flood
10/8/2005	Middlesex County	0	0	$0	Flood
10/8/2005	Middlesex County	0	0	$0	Flood
10/8/2005	New Haven County	0	0	$0	Flood
10/8/2005	New Haven County	0	0	$0	Flood
10/8/2005	New London County	0	0	$0	Flood
10/9/2005	Litchfield County	0	0	$0	Flood
10/9/2005	Litchfield County	0	0	$0	Flood
10/9/2005	Litchfield County	0	0	$0	Flood

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
10/11/2005	Fairfield County	0	0	$0	Thunderstorm
10/11/2005	Middlesex County	0	0	$0	Thunderstorm
10/11/2005	New Haven County	0	0	$0	Thunderstorm
10/11/2005	New London County	0	0	$0	Thunderstorm
10/14/2005	Litchfield County	0	0	$0	Flood
10/14/2005	Litchfield County	0	0	$0	Flood
10/14/2005	Litchfield County	0	0	$0	Flood
10/14/2005	Litchfield County	0	0	$0	Flood
10/14/2005	New Haven County	0	0	$0	Flood
10/15/2005	Hartford County	0	0	$5,370,086	Flood
10/15/2005	Litchfield County	0	0	$0	Flood
10/15/2005	Litchfield County	0	0	$0	Flood
10/15/2005	Litchfield County	0	0	$0	Flood
10/15/2005	New London County	0	0	$0	Flood
10/15/2005	Tolland County	0	0	$127,859	Flood
10/15/2005	Tolland County	0	0	$383,578	Flood
10/15/2005	Tolland County	1	0	$639,296	Flood
10/15/2005	Tolland County	0	0	$63,930	Flood
10/15/2005	Tolland County	0	0	$319,648	Flood
10/15/2005	Windham County	1	0	$767,155	Flood
10/16/2005	Litchfield County	0	0	$0	Thunderstorm
10/16/2005	New Haven County	0	0	$1,279	Thunderstorm
10/16/2005	New Haven County	0	0	$1,279	Thunderstorm
10/21/2005	Litchfield County	0	0	$0	Winter
10/25/2005	Hartford County	0	0	$6,393	Thunderstorm
10/25/2005	Litchfield County	0	0	$0	Flood
10/25/2005	New London County	0	0	$1,279	Thunderstorm
10/25/2005	Windham County	0	0	$19,179	Thunderstorm
10/26/2005	Litchfield County	0	0	$0	Flood
10/27/2005	Litchfield County	0	0	$0	Winter
12/9/2005	Fairfield County	0	0	$0	Winter
12/9/2005	Fairfield County	0	0	$0	Winter
12/9/2005	Middlesex County	0	0	$0	Winter
12/9/2005	New Haven County	0	0	$0	Winter
12/9/2005	New Haven County	0	0	$0	Winter
12/9/2005	New London County	0	0	$0	Winter
12/16/2005	Fairfield County	0	0	$0	Winter
12/16/2005	New London County	0	0	$6,393	Thunderstorm
12/16/2005	New London County	0	0	$0	Flood
1/3/2006	Fairfield County	0	0	$0	Flood
1/3/2006	Fairfield County	0	0	$0	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
1/3/2006	Litchfield County	0	0	$0	Winter
1/3/2006	Litchfield County	0	0	$0	Winter
1/3/2006	New Haven County	0	0	$0	Winter
1/3/2006	Tolland County	0	0	$18,580	Winter
1/3/2006	Windham County	0	0	$6,193	Winter
1/14/2006	Litchfield County	0	0	$0	Flood
1/14/2006	Litchfield County	0	0	$0	Flood
1/14/2006	Litchfield County	0	0	$0	Flood
1/14/2006	Litchfield County	0	0	$0	Flood
1/15/2006	Fairfield County	0	0	$0	Winter
1/15/2006	Hartford County	0	0	$6,193	Winter
1/15/2006	Litchfield County	0	0	$0	Flood
1/18/2006	Fairfield County	0	0	$0	Thunderstorm
1/18/2006	Hartford County	0	0	$74,318	Thunderstorm
1/18/2006	Hartford County	0	0	$24,773	Thunderstorm
1/18/2006	Litchfield County	0	0	$0	Thunderstorm
1/18/2006	Litchfield County	0	0	$0	Thunderstorm
1/18/2006	Litchfield County	0	0	$0	Flood
1/18/2006	Litchfield County	0	0	$0	Flood
1/18/2006	Litchfield County	0	0	$0	Flood
1/18/2006	Litchfield County	0	0	$0	Flood
1/18/2006	Middlesex County	0	0	$0	Thunderstorm
1/18/2006	New Haven County	0	0	$0	Thunderstorm
1/18/2006	New London County	0	0	$0	Thunderstorm
1/18/2006	Tolland County	0	0	$61,932	Thunderstorm
1/18/2006	Windham County	0	0	$92,898	Thunderstorm
1/18/2006	Windham County	0	0	$12,386	Thunderstorm
1/18/2006	Windham County	0	0	$43,352	Thunderstorm
1/21/2006	Litchfield County	0	0	$0	Thunderstorm
2/12/2006	Fairfield County	0	0	$0	Winter
2/12/2006	Fairfield County	0	0	$0	Winter
2/12/2006	Hartford County	0	0	$12,386	Winter
2/12/2006	Litchfield County	0	0	$0	Winter
2/12/2006	Litchfield County	0	0	$0	Winter
2/12/2006	Middlesex County	0	0	$0	Winter
2/12/2006	Middlesex County	0	0	$0	Winter
2/12/2006	New Haven County	0	0	$0	Winter
2/12/2006	New Haven County	0	0	$0	Winter
2/12/2006	New London County	0	0	$0	Winter
2/12/2006	New London County	0	0	$0	Winter
2/12/2006	Tolland County	0	0	$12,386	Winter
2/12/2006	Windham County	0	0	$12,386	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
2/17/2006	Fairfield County	0	0	$0	Thunderstorm
2/17/2006	Hartford County	0	0	$49,545	Thunderstorm
2/17/2006	Litchfield County	0	0	$0	Thunderstorm
2/17/2006	Litchfield County	0	0	$0	Thunderstorm
2/17/2006	Middlesex County	0	0	$0	Thunderstorm
2/17/2006	New Haven County	0	0	$0	Thunderstorm
2/17/2006	New Haven County	0	0	$0	Thunderstorm
2/17/2006	New London County	0	0	$0	Thunderstorm
3/2/2006	Fairfield County	0	0	$0	Winter
3/2/2006	Fairfield County	0	0	$0	Winter
3/2/2006	Middlesex County	0	0	$0	Winter
3/2/2006	Middlesex County	0	0	$0	Winter
3/2/2006	New Haven County	0	0	$0	Winter
3/2/2006	New Haven County	0	0	$0	Winter
3/2/2006	New London County	0	0	$0	Winter
3/2/2006	New London County	0	0	$0	Winter
4/23/2006	Fairfield County	0	0	$0	Flood
4/23/2006	Hartford County	0	0	$0	Thunderstorm
4/23/2006	New Haven County	1	0	$0	Flood
5/13/2006	New Haven County	0	0	$0	Flood
5/13/2006	New Haven County	0	0	$0	Flood
5/13/2006	New London County	0	0	$0	Flood
5/21/2006	Hartford County	0	0	$12,386	Thunderstorm
5/21/2006	Hartford County	0	0	$9,909	Thunderstorm
5/21/2006	Hartford County	0	0	$0	Thunderstorm
5/21/2006	Hartford County	0	0	$0	Thunderstorm
5/21/2006	Middlesex County	0	0	$0	Thunderstorm
5/21/2006	New London County	0	0	$0	Thunderstorm
5/21/2006	New London County	0	0	$0	Thunderstorm
5/21/2006	Tolland County	0	0	$6,193	Thunderstorm
5/21/2006	Tolland County	0	0	$9,909	Thunderstorm
5/21/2006	Tolland County	0	0	$6,193	Thunderstorm
5/21/2006	Tolland County	0	0	$6,193	Thunderstorm
5/21/2006	Windham County	0	0	$6,193	Thunderstorm
5/21/2006	Windham County	0	0	$9,909	Thunderstorm
6/1/2006	Fairfield County	0	1	$0	Thunderstorm
6/1/2006	Fairfield County	0	0	$0	Thunderstorm
6/1/2006	Fairfield County	0	0	$0	Thunderstorm
6/1/2006	Hartford County	0	0	$18,580	Thunderstorm
6/1/2006	Hartford County	0	0	$0	Thunderstorm
6/1/2006	Litchfield County	0	0	$0	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
6/1/2006	Litchfield County	0	0	$0	Thunderstorm
6/1/2006	Litchfield County	0	0	$0	Thunderstorm
6/1/2006	Litchfield County	0	0	$0	Thunderstorm
6/1/2006	Tolland County	0	0	$12,386	Thunderstorm
6/1/2006	Tolland County	0	0	$0	Thunderstorm
6/1/2006	Windham County	0	0	$18,580	Thunderstorm
6/2/2006	Fairfield County	0	0	$0	Flood
6/2/2006	Middlesex County	0	0	$0	Flood
6/2/2006	New Haven County	0	0	$0	Flood
6/19/2006	Litchfield County	0	0	$0	Thunderstorm
6/29/2006	Hartford County	0	0	$61,932	Thunderstorm
6/29/2006	Hartford County	0	0	$6,193	Flood
7/3/2006	Hartford County	0	0	$12,386	Thunderstorm
7/3/2006	Litchfield County	0	0	$0	Thunderstorm
7/3/2006	Litchfield County	0	0	$0	Thunderstorm
7/3/2006	Windham County	0	0	$61,932	Thunderstorm
7/3/2006	Windham County	0	0	$0	Thunderstorm
7/4/2006	Fairfield County	0	0	$0	Thunderstorm
7/4/2006	New Haven County	0	0	$0	Thunderstorm
7/4/2006	New Haven County	0	0	$0	Thunderstorm
7/11/2006	Fairfield County	0	0	$0	Thunderstorm
7/11/2006	Fairfield County	0	0	$0	Thunderstorm
7/11/2006	Hartford County	0	0	$12,386	Thunderstorm
7/11/2006	Hartford County	0	0	$0	Thunderstorm
7/11/2006	Hartford County	0	0	$0	Thunderstorm
7/11/2006	Litchfield County	0	0	$0	Thunderstorm
7/12/2006	Fairfield County	0	0	$2,477,272	Tornado
7/18/2006	Fairfield County	0	0	$0	Thunderstorm
7/18/2006	Fairfield County	0	0	$0	Thunderstorm
7/18/2006	Fairfield County	0	0	$0	Thunderstorm
7/18/2006	Hartford County	0	0	$0	Thunderstorm
7/18/2006	Hartford County	0	0	$18,580	Thunderstorm
7/18/2006	Litchfield County	0	0	$0	Thunderstorm
7/18/2006	New Haven County	0	0	$0	Thunderstorm
7/18/2006	New Haven County	0	0	$0	Flood
7/18/2006	New London County	0	0	$0	Thunderstorm
7/18/2006	Tolland County	0	0	$6,193	Thunderstorm
7/18/2006	Tolland County	0	0	$0	Thunderstorm
7/18/2006	Tolland County	0	0	$0	Thunderstorm
7/18/2006	Windham County	0	0	$18,580	Thunderstorm
7/18/2006	Windham County	0	0	$6,193	Thunderstorm
7/18/2006	Windham County	0	0	$6,193	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
7/18/2006	Windham County	0	0	$0	Thunderstorm
7/21/2006	Hartford County	0	0	$0	Thunderstorm
7/21/2006	Litchfield County	0	0	$0	Thunderstorm
7/21/2006	Litchfield County	0	0	$0	Thunderstorm
7/21/2006	Litchfield County	0	0	$0	Thunderstorm
7/26/2006	Hartford County	0	0	$30,966	Thunderstorm
7/26/2006	Hartford County	0	0	$18,580	Flood
7/28/2006	Fairfield County	0	0	$0	Thunderstorm
7/28/2006	Hartford County	0	0	$12,386	Thunderstorm
7/28/2006	Hartford County	0	0	$6,193	Thunderstorm
7/28/2006	Litchfield County	0	0	$0	Thunderstorm
7/28/2006	Litchfield County	0	0	$0	Thunderstorm
7/28/2006	Middlesex County	0	0	$0	Thunderstorm
7/28/2006	Middlesex County	0	0	$0	Thunderstorm
7/28/2006	New Haven County	0	0	$0	Thunderstorm
7/28/2006	New Haven County	0	0	$0	Thunderstorm
7/28/2006	New London County	0	0	$0	Thunderstorm
7/28/2006	New London County	0	0	$0	Thunderstorm
7/28/2006	Tolland County	0	0	$30,966	Thunderstorm
7/28/2006	Windham County	0	0	$6,193	Thunderstorm
8/1/2006	Fairfield County	0	0	$0	Thunderstorm
8/1/2006	Litchfield County	0	0	$0	Thunderstorm
8/1/2006	Litchfield County	0	0	$0	Thunderstorm
8/1/2006	Litchfield County	0	0	$0	Thunderstorm
8/1/2006	New Haven County	0	0	$0	Thunderstorm
8/1/2006	New Haven County	0	0	$0	Thunderstorm
8/2/2006	Windham County	0	0	$2,477	Thunderstorm
8/2/2006	Windham County	0	0	$12,386	Thunderstorm
8/3/2006	Fairfield County	0	0	$0	Thunderstorm
8/3/2006	Litchfield County	0	0	$0	Thunderstorm
8/3/2006	Middlesex County	0	0	$0	Thunderstorm
8/3/2006	New Haven County	0	0	$0	Thunderstorm
8/3/2006	New London County	0	0	$0	Thunderstorm
8/3/2006	New London County	0	0	$0	Thunderstorm
8/10/2006	Tolland County	0	0	$12,386	Thunderstorm
8/10/2006	Tolland County	0	0	$0	Thunderstorm
8/27/2006	Fairfield County	0	0	$0	Flood
8/27/2006	New Haven County	0	0	$0	Flood
9/2/2006	Fairfield County	0	0	$0	Thunderstorm
9/2/2006	Litchfield County	0	0	$0	Thunderstorm
9/2/2006	New Haven County	0	0	$0	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
10/1/2006	Hartford County	0	0	$18,580	Thunderstorm
10/11/2006	Fairfield County	0	0	$0	Flood
10/20/2006	Hartford County	0	0	$4,955	Thunderstorm
10/28/2006	Fairfield County	0	0	$0	Flood
10/28/2006	Fairfield County	0	0	$0	Flood
10/28/2006	Litchfield County	0	0	$0	Thunderstorm
10/28/2006	Middlesex County	0	0	$0	Flood
10/28/2006	New Haven County	0	0	$0	Flood
10/28/2006	New Haven County	0	0	$0	Flood
10/28/2006	New Haven County	0	0	$0	Thunderstorm
10/28/2006	New London County	0	0	$0	Flood
10/28/2006	New London County	0	0	$0	Flood
10/28/2006	New London County	0	0	$0	Thunderstorm
10/28/2006	Windham County	0	0	$2,477	Flood
10/29/2006	Hartford County	0	0	$6,193	Thunderstorm
10/29/2006	New London County	0	0	$0	Thunderstorm
10/29/2006	Tolland County	0	0	$12,386	Thunderstorm
10/29/2006	Windham County	0	0	$9,909	Thunderstorm
11/9/2006	Litchfield County	0	0	$0	Flood
12/1/2006	Fairfield County	0	0	$0	Thunderstorm
12/1/2006	Fairfield County	0	0	$0	Thunderstorm
12/1/2006	Hartford County	0	0	$9,290	Thunderstorm
12/1/2006	Litchfield County	0	0	$0	Thunderstorm
12/1/2006	Litchfield County	0	0	$0	Thunderstorm
12/1/2006	Middlesex County	0	0	$0	Thunderstorm
12/1/2006	New Haven County	0	0	$0	Thunderstorm
12/1/2006	New London County	0	0	$0	Thunderstorm
1/25/2007	Litchfield County	0	0	$0	Winter
1/25/2007	Litchfield County	0	0	$0	Winter
2/13/2007	Hartford County	0	0	$0	Winter
2/13/2007	Litchfield County	0	0	$0	Winter
2/13/2007	Litchfield County	0	0	$0	Winter
2/13/2007	Tolland County	0	0	$0	Winter
2/13/2007	Windham County	0	0	$0	Winter
2/14/2007	Fairfield County	0	0	$0	Winter
2/14/2007	New Haven County	0	0	$0	Winter
3/2/2007	Fairfield County	0	0	$0	Flood
3/2/2007	Litchfield County	0	0	$0	Winter
3/2/2007	Middlesex County	0	0	$0	Flood
3/2/2007	New Haven County	0	0	$0	Flood
3/2/2007	New London County	0	0	$0	Flood

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
3/2/2007	New London County	0	0	$0	Flood
3/16/2007	Fairfield County	0	0	$0	Winter
3/16/2007	Fairfield County	0	0	$0	Winter
3/16/2007	Hartford County	0	0	$0	Winter
3/16/2007	Litchfield County	0	0	$0	Winter
3/16/2007	Litchfield County	0	0	$0	Winter
3/16/2007	Middlesex County	0	0	$0	Winter
3/16/2007	New Haven County	0	0	$0	Winter
3/16/2007	New Haven County	0	0	$0	Winter
3/16/2007	Tolland County	0	0	$0	Winter
3/16/2007	Windham County	0	0	$0	Winter
4/15/2007	Fairfield County	0	0	$0	Flood
4/15/2007	Fairfield County	0	0	$0	Flood
4/15/2007	Litchfield County	0	0	$903,433	Flood
4/15/2007	Middlesex County	0	0	$0	Thunderstorm
4/15/2007	New Haven County	0	0	$0	Flood
4/15/2007	New Haven County	0	0	$0	Flood
4/15/2007	New London County	0	0	$0	Thunderstorm
4/15/2007	Tolland County	0	0	$6,023	Thunderstorm
4/16/2007	Hartford County	0	0	$60,229	Flood
4/16/2007	Middlesex County	0	0	$0	Flood
4/16/2007	New London County	0	0	$0	Flood
4/16/2007	New London County	0	0	$0	Flood
5/16/2007	Fairfield County	0	0	$0	Tornado
5/16/2007	Fairfield County	0	0	$0	Thunderstorm
5/16/2007	Fairfield County	0	0	$0	Thunderstorm
5/16/2007	Fairfield County	0	0	$0	Thunderstorm
5/16/2007	Fairfield County	0	0	$0	Thunderstorm
5/16/2007	Hartford County	0	0	$0	Thunderstorm
5/16/2007	Litchfield County	0	0	$0	Thunderstorm
5/16/2007	Litchfield County	0	0	$0	Thunderstorm
5/16/2007	Middlesex County	0	0	$0	Thunderstorm
5/16/2007	Middlesex County	0	0	$0	Thunderstorm
5/16/2007	New Haven County	0	0	$0	Thunderstorm
5/16/2007	New Haven County	0	0	$0	Thunderstorm
5/16/2007	Tolland County	0	0	$0	Thunderstorm
5/16/2007	Windham County	0	0	$0	Thunderstorm
5/28/2007	Tolland County	0	0	$0	Tornado
5/31/2007	Litchfield County	0	0	$0	Thunderstorm
5/31/2007	Litchfield County	0	0	$0	Thunderstorm
6/1/2007	Fairfield County	0	0	$0	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
6/1/2007	Fairfield County	0	0	$0	Thunderstorm
6/1/2007	Litchfield County	0	1	$0	Thunderstorm
6/1/2007	Litchfield County	0	0	$0	Thunderstorm
6/1/2007	New Haven County	0	0	$0	Thunderstorm
6/2/2007	Fairfield County	0	0	$0	Thunderstorm
6/2/2007	Hartford County	0	0	$0	Thunderstorm
6/2/2007	Hartford County	0	0	$0	Thunderstorm
6/5/2007	Fairfield County	0	0	$0	Thunderstorm
6/5/2007	Fairfield County	0	0	$0	Thunderstorm
6/5/2007	Hartford County	0	0	$0	Thunderstorm
6/5/2007	Hartford County	0	0	$0	Thunderstorm
6/5/2007	Hartford County	0	0	$0	Thunderstorm
6/5/2007	Hartford County	0	0	$0	Thunderstorm
6/5/2007	New Haven County	0	0	$0	Thunderstorm
6/5/2007	New Haven County	0	0	$0	Thunderstorm
6/5/2007	New Haven County	0	0	$0	Thunderstorm
6/5/2007	New Haven County	0	0	$0	Flood
6/11/2007	Hartford County	0	0	$0	Thunderstorm
6/11/2007	Tolland County	0	0	$0	Thunderstorm
6/16/2007	Fairfield County	0	0	$0	Thunderstorm
6/16/2007	Fairfield County	0	0	$0	Thunderstorm
6/16/2007	Fairfield County	0	0	$0	Thunderstorm
6/16/2007	Fairfield County	0	0	$0	Thunderstorm
6/16/2007	Fairfield County	0	0	$0	Thunderstorm
6/16/2007	Hartford County	0	0	$0	Thunderstorm
6/16/2007	Hartford County	0	0	$0	Thunderstorm
6/16/2007	Hartford County	0	0	$0	Thunderstorm
6/16/2007	New Haven County	0	0	$0	Thunderstorm
7/6/2007	Hartford County	0	0	$0	Thunderstorm
7/6/2007	Litchfield County	0	0	$0	Thunderstorm
7/6/2007	Middlesex County	0	0	$0	Thunderstorm
7/6/2007	New London County	0	0	$0	Thunderstorm
7/15/2007	Hartford County	0	0	$0	Thunderstorm
7/15/2007	Hartford County	0	0	$0	Thunderstorm
7/15/2007	Litchfield County	0	0	$0	Thunderstorm
7/15/2007	Litchfield County	0	0	$0	Thunderstorm
7/15/2007	Litchfield County	0	0	$0	Thunderstorm
7/19/2007	Fairfield County	0	0	$0	Thunderstorm
7/19/2007	Fairfield County	0	0	$0	Thunderstorm
7/19/2007	Hartford County	0	0	$0	Thunderstorm
7/19/2007	Hartford County	0	0	$0	Thunderstorm
7/19/2007	Litchfield County	0	0	$0	Tornado

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
7/19/2007	Litchfield County	0	0	$0	Thunderstorm
7/19/2007	Litchfield County	0	0	$0	Thunderstorm
7/19/2007	Litchfield County	0	0	$0	Thunderstorm
7/19/2007	Litchfield County	0	0	$0	Thunderstorm
7/19/2007	Middlesex County	0	0	$0	Thunderstorm
7/19/2007	New Haven County	0	0	$0	Thunderstorm
7/19/2007	New Haven County	0	0	$0	Flood
7/19/2007	New London County	0	0	$0	Thunderstorm
7/28/2007	Middlesex County	0	0	$0	Thunderstorm
7/28/2007	New Haven County	0	0	$0	Thunderstorm
7/28/2007	New Haven County	0	0	$0	Thunderstorm
7/28/2007	New Haven County	0	0	$0	Flood
7/28/2007	New Haven County	0	0	$0	Flood
7/29/2007	Fairfield County	0	0	$0	Flood
8/17/2007	Hartford County	0	0	$0	Thunderstorm
8/17/2007	Litchfield County	0	0	$0	Thunderstorm
8/17/2007	Litchfield County	0	0	$0	Thunderstorm
8/17/2007	Litchfield County	0	0	$0	Thunderstorm
8/17/2007	Litchfield County	0	0	$0	Thunderstorm
8/17/2007	Tolland County	0	0	$0	Thunderstorm
8/17/2007	Tolland County	0	0	$0	Thunderstorm
9/8/2007	Litchfield County	0	0	$0	Thunderstorm
9/8/2007	Litchfield County	0	0	$0	Thunderstorm
9/8/2007	Litchfield County	0	0	$0	Thunderstorm
10/11/2007	Fairfield County	0	0	$2,409,156	Flood
10/19/2007	Fairfield County	0	0	$0	Flood
10/20/2007	Tolland County	0	0	$0	Thunderstorm
10/20/2007	Tolland County	0	0	$0	Thunderstorm
10/20/2007	Tolland County	0	0	$0	Thunderstorm
10/20/2007	Windham County	0	0	$0	Thunderstorm
10/20/2007	Windham County	0	0	$1,205	Thunderstorm
11/20/2007	Litchfield County	0	0	$0	Winter
11/20/2007	Litchfield County	0	0	$0	Winter
12/2/2007	Hartford County	0	0	$7,227	Winter
12/9/2007	Litchfield County	0	0	$0	Winter
12/9/2007	Litchfield County	0	0	$0	Winter
12/13/2007	Fairfield County	0	0	$0	Winter
12/13/2007	Hartford County	0	0	$0	Winter
12/13/2007	Litchfield County	0	0	$0	Winter
12/13/2007	Litchfield County	0	0	$0	Winter
12/13/2007	New Haven County	0	0	$0	Winter
12/13/2007	Tolland County	0	0	$0	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
12/13/2007	Windham County	0	0	$0	Winter
12/16/2007	Fairfield County	0	0	$0	Flood
12/16/2007	Litchfield County	0	0	$0	Winter
12/16/2007	Litchfield County	0	0	$0	Winter
12/16/2007	New Haven County	0	0	$0	Flood
12/23/2007	Litchfield County	0	0	$0	Thunderstorm
12/23/2007	Litchfield County	0	0	$0	Thunderstorm
12/30/2007	Litchfield County	0	0	$0	Winter
12/30/2007	Litchfield County	0	0	$0	Winter
1/1/2008	Litchfield County	0	0	$0	Winter
1/1/2008	Litchfield County	0	0	$0	Winter
1/9/2008	New Haven County	0	0	$5,799	Thunderstorm
1/13/2008	Litchfield County	0	0	$0	Winter
1/13/2008	Litchfield County	0	0	$0	Winter
1/14/2008	Hartford County	0	0	$37,114	Winter
1/14/2008	Tolland County	0	0	$28,995	Winter
1/14/2008	Windham County	0	0	$18,557	Winter
2/1/2008	Litchfield County	0	0	$0	Winter
2/6/2008	Litchfield County	0	0	$0	Winter
2/6/2008	Litchfield County	0	0	$0	Winter
2/9/2008	Litchfield County	0	0	$0	Winter
2/12/2008	Litchfield County	0	0	$0	Winter
2/12/2008	Litchfield County	0	0	$0	Winter
2/13/2008	Fairfield County	0	0	$0	Flood
2/13/2008	Hartford County	0	0	$23,196	Flood
2/13/2008	Litchfield County	0	0	$1,160	Flood
2/13/2008	New Haven County	0	0	$0	Flood
2/13/2008	New Haven County	0	0	$0	Flood
2/13/2008	New London County	0	0	$0	Flood
2/13/2008	New London County	0	0	$0	Flood
2/13/2008	Tolland County	0	0	$0	Flood
2/13/2008	Windham County	0	0	$23,196	Flood
2/22/2008	Fairfield County	0	0	$0	Winter
2/22/2008	Fairfield County	0	0	$0	Winter
2/22/2008	Hartford County	0	0	$0	Winter
2/22/2008	Litchfield County	0	0	$0	Winter
2/22/2008	Litchfield County	0	0	$0	Winter
2/22/2008	New Haven County	0	0	$0	Winter
2/22/2008	New Haven County	0	0	$0	Winter
2/22/2008	Tolland County	0	0	$0	Winter
3/5/2008	Hartford County	0	0	$0	Flood
3/5/2008	Litchfield County	0	0	$0	Flood

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
3/5/2008	Middlesex County	0	0	$0	Thunderstorm
3/5/2008	Windham County	0	0	$2,320	Thunderstorm
3/8/2008	Fairfield County	0	2	$5,799	Thunderstorm
3/8/2008	Fairfield County	0	0	$0	Thunderstorm
3/8/2008	Fairfield County	0	0	$0	Thunderstorm
3/8/2008	Hartford County	0	0	$17,397	Thunderstorm
3/8/2008	Hartford County	0	0	$0	Flood
3/8/2008	Hartford County	0	0	$0	Flood
3/8/2008	Litchfield County	0	0	$0	Thunderstorm
3/8/2008	Litchfield County	0	0	$0	Thunderstorm
3/8/2008	Litchfield County	0	0	$3,479	Flood
3/8/2008	New London County	0	0	$0	Flood
3/8/2008	Tolland County	0	0	$11,598	Thunderstorm
3/8/2008	Tolland County	0	0	$0	Flood
3/8/2008	Windham County	0	0	$0	Thunderstorm
3/8/2008	Windham County	0	0	$0	Flood
3/9/2008	New London County	0	0	$0	Thunderstorm
4/1/2008	Hartford County	0	0	$580	Thunderstorm
4/1/2008	Tolland County	0	0	$3,479	Thunderstorm
4/1/2008	Windham County	0	0	$0	Thunderstorm
4/12/2008	New London County	0	0	$0	Thunderstorm
4/29/2008	Litchfield County	0	0	$0	Winter
5/1/2008	Litchfield County	0	0	$0	Winter
5/12/2008	Fairfield County	0	0	$0	Thunderstorm
5/12/2008	Middlesex County	0	0	$0	Thunderstorm
5/27/2008	New Haven County	0	0	$695,882	Flood
5/31/2008	Hartford County	0	0	$4,639	Thunderstorm
5/31/2008	Hartford County	0	0	$0	Thunderstorm
5/31/2008	Hartford County	0	0	$0	Thunderstorm
5/31/2008	Hartford County	0	0	$0	Thunderstorm
5/31/2008	Litchfield County	0	0	$28,995	Thunderstorm
6/8/2008	Fairfield County	0	0	$5,799	Thunderstorm
6/8/2008	Fairfield County	0	0	$580	Thunderstorm
6/8/2008	Fairfield County	0	0	$2,320	Thunderstorm
6/8/2008	Fairfield County	0	0	$2,900	Thunderstorm
6/8/2008	Fairfield County	0	0	$870	Thunderstorm
6/8/2008	Hartford County	0	0	$5,799	Thunderstorm
6/8/2008	Hartford County	0	0	$5,799	Thunderstorm
6/8/2008	Hartford County	0	0	$3,479	Thunderstorm
6/8/2008	Hartford County	0	0	$5,799	Thunderstorm
6/8/2008	Hartford County	0	0	$5,799	Thunderstorm
6/8/2008	Litchfield County	0	0	$0	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
6/8/2008	Litchfield County	0	0	$0	Thunderstorm
6/8/2008	Litchfield County	0	0	$0	Thunderstorm
6/8/2008	Litchfield County	0	0	$0	Thunderstorm
6/8/2008	New Haven County	1	4	$0	Thunderstorm
6/8/2008	New Haven County	0	0	$0	Thunderstorm
6/8/2008	New Haven County	0	0	$1,160	Thunderstorm
6/8/2008	New Haven County	0	0	$2,900	Thunderstorm
6/8/2008	New Haven County	0	0	$5,799	Thunderstorm
6/8/2008	New Haven County	0	0	$1,160	Thunderstorm
6/8/2008	New Haven County	0	0	$1,160	Thunderstorm
6/8/2008	New Haven County	0	0	$11,598	Thunderstorm
6/8/2008	New Haven County	0	0	$34,794	Thunderstorm
6/10/2008	Fairfield County	0	0	$3,479	Thunderstorm
6/10/2008	Fairfield County	0	0	$3,479	Thunderstorm
6/10/2008	Fairfield County	0	0	$2,320	Thunderstorm
6/10/2008	Hartford County	0	0	$0	Thunderstorm
6/10/2008	Hartford County	0	0	$5,799	Thunderstorm
6/10/2008	Hartford County	0	0	$5,799	Thunderstorm
6/10/2008	Hartford County	0	0	$8,119	Thunderstorm
6/10/2008	Hartford County	0	0	$3,479	Thunderstorm
6/10/2008	Litchfield County	0	0	$0	Thunderstorm
6/10/2008	Litchfield County	0	0	$0	Thunderstorm
6/10/2008	Litchfield County	0	0	$0	Thunderstorm
6/10/2008	Litchfield County	0	0	$0	Thunderstorm
6/10/2008	Litchfield County	0	0	$0	Thunderstorm
6/10/2008	Tolland County	0	0	$0	Thunderstorm
6/10/2008	Tolland County	0	0	$5,799	Thunderstorm
6/14/2008	Fairfield County	0	0	$0	Flood
6/14/2008	Fairfield County	0	0	$0	Thunderstorm
6/14/2008	Litchfield County	0	0	$0	Flood
6/14/2008	Litchfield County	0	0	$0	Flood
6/14/2008	Litchfield County	0	0	$0	Thunderstorm
6/14/2008	Litchfield County	0	0	$0	Thunderstorm
6/14/2008	Litchfield County	0	0	$0	Thunderstorm
6/14/2008	Litchfield County	0	0	$0	Thunderstorm
6/14/2008	Litchfield County	0	0	$0	Thunderstorm
6/14/2008	Litchfield County	0	0	$0	Thunderstorm
6/14/2008	Litchfield County	0	0	$0	Thunderstorm
6/14/2008	Litchfield County	0	0	$0	Thunderstorm
6/14/2008	New Haven County	0	0	$1,160	Thunderstorm
6/14/2008	Tolland County	0	0	$5,799	Thunderstorm
6/16/2008	Fairfield County	0	0	$1,160	Thunderstorm
6/16/2008	Hartford County	0	0	$5,799	Thunderstorm
6/16/2008	Hartford County	0	0	$2,320	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
6/16/2008	Hartford County	0	0	$3,479	Thunderstorm
6/16/2008	Hartford County	0	0	$0	Thunderstorm
6/16/2008	Litchfield County	0	0	$0	Thunderstorm
6/23/2008	Hartford County	0	0	$3,479	Thunderstorm
6/23/2008	Hartford County	0	0	$5,799	Thunderstorm
6/23/2008	Hartford County	0	0	$17,397	Thunderstorm
6/23/2008	Litchfield County	0	0	$0	Thunderstorm
6/23/2008	Litchfield County	0	0	$0	Thunderstorm
6/24/2008	New London County	0	0	$2,320	Thunderstorm
6/29/2008	Hartford County	0	0	$3,479	Thunderstorm
6/29/2008	Hartford County	0	0	$5,799	Thunderstorm
6/29/2008	Hartford County	0	0	$2,320	Thunderstorm
6/29/2008	Tolland County	0	0	$3,479	Thunderstorm
6/30/2008	Hartford County	0	0	$11,598	Thunderstorm
7/1/2008	Hartford County	0	0	$17,397	Thunderstorm
7/1/2008	Hartford County	0	0	$0	Thunderstorm
7/1/2008	Hartford County	0	0	$0	Thunderstorm
7/1/2008	New Haven County	0	0	$0	Thunderstorm
7/1/2008	New Haven County	0	0	$0	Thunderstorm
7/1/2008	Tolland County	0	0	$9,278	Thunderstorm
7/1/2008	Tolland County	0	0	$5,799	Thunderstorm
7/1/2008	Tolland County	0	0	$0	Thunderstorm
7/2/2008	Middlesex County	0	0	$0	Thunderstorm
7/2/2008	New London County	0	0	$1,740	Thunderstorm
7/2/2008	New London County	0	0	$115,980	Thunderstorm
7/2/2008	New London County	0	0	$580	Thunderstorm
7/2/2008	New London County	0	0	$0	Thunderstorm
7/2/2008	New London County	0	0	$0	Thunderstorm
7/2/2008	New London County	0	0	$0	Thunderstorm
7/3/2008	Hartford County	0	0	$8,119	Thunderstorm
7/3/2008	Tolland County	0	0	$9,278	Thunderstorm
7/3/2008	Windham County	0	0	$3,479	Thunderstorm
7/19/2008	Fairfield County	0	0	$11,598	Thunderstorm
7/19/2008	New Haven County	0	0	$3,479	Thunderstorm
7/19/2008	New Haven County	0	0	$2,320	Thunderstorm
7/19/2008	New Haven County	0	0	$2,320	Thunderstorm
7/20/2008	Hartford County	0	0	$5,799	Thunderstorm
7/23/2008	Fairfield County	0	0	$0	Flood
7/23/2008	Fairfield County	0	0	$0	Flood
7/23/2008	Hartford County	0	0	$8,119	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
7/23/2008	Litchfield County	0	0	$0	Thunderstorm
7/23/2008	Middlesex County	0	0	$1,160	Thunderstorm
7/23/2008	Middlesex County	0	0	$1,160	Thunderstorm
7/23/2008	Middlesex County	0	0	$0	Thunderstorm
7/23/2008	Middlesex County	0	0	$0	Thunderstorm
7/23/2008	New London County	0	0	$1,160	Thunderstorm
7/23/2008	New London County	0	1	$0	Thunderstorm
7/27/2008	Hartford County	0	0	$5,799	Thunderstorm
7/27/2008	Hartford County	0	0	$3,479	Thunderstorm
7/27/2008	Hartford County	0	0	$3,479	Thunderstorm
7/27/2008	Hartford County	0	0	$0	Thunderstorm
7/27/2008	Litchfield County	0	0	$0	Thunderstorm
7/27/2008	Litchfield County	0	0	$0	Thunderstorm
7/27/2008	Litchfield County	0	0	$0	Thunderstorm
7/27/2008	Tolland County	0	0	$17,397	Flood
7/27/2008	Windham County	0	0	$5,799	Thunderstorm
7/31/2008	New Haven County	0	0	$1,160	Thunderstorm
8/2/2008	Fairfield County	0	0	$28,995	Thunderstorm
8/2/2008	Fairfield County	0	0	$0	Flood
8/2/2008	Fairfield County	0	0	$0	Flood
8/2/2008	Fairfield County	0	0	$3,479	Thunderstorm
8/2/2008	New Haven County	0	0	$17,397	Thunderstorm
8/2/2008	New Haven County	0	0	$580	Thunderstorm
8/2/2008	New Haven County	0	0	$0	Flood
8/7/2008	Fairfield County	0	0	$0	Tornado
8/7/2008	Fairfield County	0	0	$28,995	Thunderstorm
8/7/2008	Fairfield County	0	0	$0	Flood
8/7/2008	Fairfield County	0	0	$0	Flood
8/7/2008	Fairfield County	0	0	$1,740	Thunderstorm
8/7/2008	Fairfield County	0	0	$1,740	Thunderstorm
8/7/2008	Fairfield County	0	0	$2,320	Thunderstorm
8/7/2008	Fairfield County	0	0	$0	Thunderstorm
8/7/2008	Fairfield County	0	0	$28,995	Thunderstorm
8/7/2008	Fairfield County	0	0	$0	Thunderstorm
8/7/2008	Fairfield County	0	0	$1,740	Thunderstorm
8/7/2008	Fairfield County	0	0	$870	Thunderstorm
8/7/2008	Fairfield County	0	0	$1,160	Thunderstorm
8/7/2008	Fairfield County	0	0	$0	Thunderstorm
8/7/2008	Fairfield County	0	0	$0	Thunderstorm
8/7/2008	Fairfield County	0	0	$0	Thunderstorm
8/7/2008	Fairfield County	0	0	$0	Thunderstorm
8/7/2008	Hartford County	0	0	$17,397	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
8/7/2008	Hartford County	0	0	$17,397	Thunderstorm
8/7/2008	Hartford County	0	0	$9,278	Thunderstorm
8/7/2008	Hartford County	0	0	$0	Thunderstorm
8/7/2008	Hartford County	0	0	$0	Thunderstorm
8/7/2008	Hartford County	0	0	$0	Thunderstorm
8/7/2008	Hartford County	0	0	$0	Thunderstorm
8/7/2008	New Haven County	0	0	$8,699	Thunderstorm
8/7/2008	New Haven County	0	0	$2,900	Thunderstorm
8/7/2008	New Haven County	0	0	$40,593	Thunderstorm
8/7/2008	New Haven County	0	0	$0	Flood
8/7/2008	New Haven County	0	0	$0	Flood
8/7/2008	Tolland County	0	0	$11,598	Thunderstorm
8/7/2008	Tolland County	0	0	$3,479	Thunderstorm
8/8/2008	Fairfield County	0	0	$2,900	Thunderstorm
8/8/2008	Hartford County	0	0	$5,799	Thunderstorm
8/8/2008	Hartford County	0	0	$3,479	Thunderstorm
8/8/2008	Hartford County	0	0	$0	Thunderstorm
8/8/2008	Hartford County	0	0	$0	Thunderstorm
8/8/2008	Hartford County	0	0	$0	Thunderstorm
8/8/2008	New Haven County	0	0	$0	Thunderstorm
8/8/2008	Tolland County	0	0	$5,799	Thunderstorm
8/8/2008	Tolland County	0	0	$0	Thunderstorm
8/8/2008	Tolland County	0	0	$0	Thunderstorm
8/8/2008	Tolland County	0	0	$17,397	Flood
8/11/2008	Litchfield County	0	0	$0	Thunderstorm
8/11/2008	Middlesex County	0	0	$0	Thunderstorm
8/11/2008	Middlesex County	0	0	$0	Thunderstorm
8/11/2008	Middlesex County	0	0	$8,699	Thunderstorm
8/11/2008	Middlesex County	0	0	$0	Thunderstorm
8/11/2008	New London County	0	0	$0	Thunderstorm
8/11/2008	New London County	0	0	$0	Flood
8/15/2008	New Haven County	0	0	$11,598	Thunderstorm
9/3/2008	Fairfield County	0	0	$0	Thunderstorm
9/3/2008	Fairfield County	0	0	$0	Thunderstorm
9/3/2008	Hartford County	0	0	$0	Thunderstorm
9/3/2008	Litchfield County	0	0	$0	Thunderstorm
9/3/2008	Litchfield County	0	0	$0	Thunderstorm
9/3/2008	Litchfield County	0	0	$0	Thunderstorm
9/6/2008	Fairfield County	0	0	$4,639	Hurricanes
9/6/2008	Fairfield County	0	0	$4,639	Hurricanes
9/6/2008	Fairfield County	0	0	$0	Flood
9/6/2008	Fairfield County	0	0	$0	Flood

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
9/6/2008	Fairfield County	1	0	$0	Flood
9/6/2008	Fairfield County	0	0	$0	Flood
9/6/2008	Litchfield County	0	0	$115,980	Thunderstorm
9/6/2008	Litchfield County	0	0	$0	Flood
9/6/2008	Middlesex County	0	0	$4,639	Hurricanes
9/6/2008	Middlesex County	0	0	$4,639	Hurricanes
9/6/2008	New Haven County	0	0	$4,639	Hurricanes
9/6/2008	New Haven County	0	0	$4,639	Hurricanes
9/6/2008	New Haven County	0	0	$0	Flood
9/6/2008	New London County	0	0	$4,639	Hurricanes
9/6/2008	New London County	0	0	$4,639	Hurricanes
9/6/2008	New London County	0	0	$0	Flood
9/7/2008	New Haven County	0	0	$0	Flood
9/7/2008	Tolland County	0	0	$23,196	Flood
9/9/2008	Hartford County	0	0	$1,160	Thunderstorm
9/9/2008	Tolland County	0	0	$9,278	Thunderstorm
9/9/2008	Tolland County	0	0	$3,479	Thunderstorm
9/9/2008	Windham County	0	0	$8,119	Thunderstorm
9/28/2008	Hartford County	0	0	$46,392	Flood
10/25/2008	Hartford County	0	0	$11,598	Thunderstorm
10/25/2008	Middlesex County	0	0	$5,799	Thunderstorm
10/25/2008	Tolland County	0	0	$232	Thunderstorm
11/30/2008	Litchfield County	0	0	$0	Winter
11/30/2008	Litchfield County	0	0	$0	Winter
12/7/2008	Litchfield County	0	0	$1,160	Thunderstorm
12/7/2008	Litchfield County	0	0	$1,160	Thunderstorm
12/11/2008	Litchfield County	0	0	$0	Winter
12/11/2008	Litchfield County	0	0	$0	Winter
12/12/2008	Fairfield County	0	0	$0	Flood
12/12/2008	Hartford County	0	0	$0	Flood
12/12/2008	Hartford County	0	0	$3,479	Flood
12/12/2008	Litchfield County	0	0	$17,397	Flood
12/12/2008	Middlesex County	0	0	$0	Flood
12/12/2008	Middlesex County	0	0	$0	Flood
12/12/2008	New Haven County	0	0	$0	Flood
12/12/2008	New London County	0	0	$0	Flood
12/17/2008	Litchfield County	0	0	$0	Winter
12/17/2008	Litchfield County	0	0	$0	Winter
12/19/2008	Fairfield County	0	0	$0	Winter
12/19/2008	Fairfield County	0	0	$0	Winter
12/19/2008	Hartford County	0	0	$0	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
12/19/2008	Litchfield County	0	0	$0	Winter
12/19/2008	Litchfield County	0	0	$0	Winter
12/19/2008	Middlesex County	0	0	$0	Winter
12/19/2008	Middlesex County	0	0	$0	Winter
12/19/2008	New Haven County	0	0	$0	Winter
12/19/2008	New Haven County	0	0	$0	Winter
12/19/2008	New London County	0	0	$0	Winter
12/19/2008	New London County	0	0	$0	Winter
12/19/2008	Tolland County	0	0	$0	Winter
12/19/2008	Windham County	0	0	$0	Winter
12/21/2008	Litchfield County	0	0	$0	Winter
12/24/2008	Litchfield County	0	0	$0	Winter
12/24/2008	Litchfield County	0	0	$0	Winter
12/30/2008	Litchfield County	0	0	$3,479	Thunderstorm
12/30/2008	Litchfield County	0	0	$9,278	Thunderstorm
12/31/2008	Litchfield County	0	0	$0	Winter
12/31/2008	Litchfield County	0	0	$0	Winter
12/31/2008	Tolland County	0	0	$0	Winter
12/31/2008	Windham County	0	0	$0	Winter
1/1/2009	Litchfield County	0	0	$0	Winter
1/6/2009	Fairfield County	0	0	$0	Winter
1/6/2009	Fairfield County	1	1	$0	Winter
1/6/2009	New Haven County	1	3	$0	Winter
1/6/2009	New London County	0	0	$0	Winter
1/7/2009	Hartford County	0	0	$11,639	Winter
1/7/2009	Tolland County	0	0	$5,820	Winter
1/10/2009	Litchfield County	0	0	$0	Winter
1/10/2009	Litchfield County	0	0	$0	Winter
1/16/2009	Litchfield County	0	0	$0	Winter
1/18/2009	Litchfield County	0	0	$0	Winter
1/28/2009	Hartford County	0	0	$23,279	Winter
1/28/2009	Litchfield County	0	0	$0	Winter
1/28/2009	Litchfield County	0	0	$0	Winter
2/12/2009	Fairfield County	0	0	$0	Thunderstorm
2/12/2009	Fairfield County	0	0	$0	Thunderstorm
2/12/2009	New Haven County	0	0	$0	Thunderstorm
2/18/2009	Litchfield County	0	0	$0	Winter
2/19/2009	Litchfield County	0	0	$0	Winter
2/19/2009	Litchfield County	0	0	$0	Winter
3/1/2009	Fairfield County	0	0	$0	Winter
3/1/2009	Fairfield County	0	0	$0	Winter
3/1/2009	Hartford County	0	0	$0	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
3/1/2009	Middlesex County	0	0	$0	Winter
3/1/2009	Middlesex County	0	0	$0	Winter
3/1/2009	New Haven County	0	0	$0	Winter
3/1/2009	New Haven County	0	0	$0	Winter
3/1/2009	New London County	0	0	$0	Winter
3/1/2009	New London County	0	0	$0	Winter
3/1/2009	Tolland County	0	0	$0	Winter
3/1/2009	Windham County	0	0	$0	Winter
3/2/2009	Litchfield County	0	0	$0	Winter
3/2/2009	Litchfield County	0	0	$0	Winter
3/29/2009	Fairfield County	0	0	$0	Thunderstorm
5/12/2009	New London County	0	0	$0	Thunderstorm
5/19/2009	Litchfield County	0	0	$0	Winter
5/24/2009	Fairfield County	0	3	$0	Thunderstorm
5/24/2009	Fairfield County	0	0	$1,164	Thunderstorm
5/24/2009	Fairfield County	0	0	$1,164	Thunderstorm
5/24/2009	Fairfield County	0	0	$0	Thunderstorm
5/24/2009	Hartford County	0	0	$34,918	Thunderstorm
5/24/2009	Hartford County	0	0	$11,639	Thunderstorm
5/24/2009	Hartford County	0	0	$17,459	Thunderstorm
5/24/2009	Hartford County	0	0	$17,459	Thunderstorm
5/24/2009	Hartford County	0	0	$0	Thunderstorm
5/24/2009	Hartford County	0	0	$0	Thunderstorm
5/24/2009	Hartford County	0	0	$0	Thunderstorm
5/24/2009	Litchfield County	0	0	$0	Thunderstorm
5/24/2009	New Haven County	0	0	$0	Thunderstorm
5/24/2009	New Haven County	0	0	$0	Thunderstorm
5/24/2009	New Haven County	0	0	$4,656	Thunderstorm
5/24/2009	New Haven County	0	0	$4,656	Thunderstorm
5/24/2009	New Haven County	0	0	$2,328	Thunderstorm
5/24/2009	New Haven County	0	0	$4,656	Thunderstorm
5/24/2009	New Haven County	0	0	$4,656	Thunderstorm
5/24/2009	New Haven County	0	0	$582	Thunderstorm
5/24/2009	New Haven County	0	0	$1,164	Thunderstorm
5/24/2009	New London County	0	0	$0	Thunderstorm
5/24/2009	Tolland County	0	0	$17,459	Thunderstorm
5/24/2009	Tolland County	0	0	$11,639	Thunderstorm
5/24/2009	Tolland County	0	0	$11,639	Thunderstorm
5/24/2009	Tolland County	0	0	$3,492	Thunderstorm
5/24/2009	Tolland County	0	0	$0	Thunderstorm
5/24/2009	Tolland County	0	0	$0	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
5/24/2009	Tolland County	0	0	$0	Thunderstorm
6/1/2009	Litchfield County	0	0	$0	Winter
6/18/2009	Fairfield County	0	0	$0	Flood
6/26/2009	Fairfield County	0	0	$0	Thunderstorm
6/26/2009	Fairfield County	0	0	$0	Flood
6/26/2009	Fairfield County	0	0	$2,328	Thunderstorm
6/26/2009	Fairfield County	0	0	$2,328	Thunderstorm
6/26/2009	Hartford County	0	0	$34,918	Thunderstorm
6/26/2009	Hartford County	0	0	$872,958	Tornado
6/26/2009	Hartford County	0	0	$290,986	Thunderstorm
6/26/2009	Hartford County	0	0	$116,394	Thunderstorm
6/26/2009	Hartford County	0	0	$58,197	Thunderstorm
6/26/2009	Hartford County	0	0	$46,558	Thunderstorm
6/26/2009	Hartford County	0	0	$58,197	Thunderstorm
6/26/2009	Hartford County	0	0	$58,197	Thunderstorm
6/26/2009	Hartford County	0	0	$116,394	Thunderstorm
6/26/2009	Hartford County	0	0	$174,592	Thunderstorm
6/26/2009	Hartford County	0	0	$58,197	Thunderstorm
6/26/2009	Hartford County	0	0	$87,296	Thunderstorm
6/26/2009	Hartford County	0	0	$58,197	Thunderstorm
6/26/2009	Hartford County	0	0	$0	Thunderstorm
6/26/2009	Hartford County	0	0	$0	Thunderstorm
6/26/2009	Hartford County	0	0	$0	Thunderstorm
6/26/2009	Hartford County	0	0	$0	Thunderstorm
6/26/2009	Hartford County	0	0	$0	Thunderstorm
6/26/2009	Hartford County	0	0	$0	Thunderstorm
6/26/2009	Hartford County	0	0	$58,197	Thunderstorm
6/26/2009	Hartford County	0	0	$0	Thunderstorm
6/26/2009	Litchfield County	0	0	$0	Flood
6/26/2009	Litchfield County	0	0	$0	Thunderstorm
6/26/2009	Litchfield County	0	0	$0	Thunderstorm
6/26/2009	Litchfield County	0	0	$0	Thunderstorm
6/26/2009	Litchfield County	0	0	$0	Thunderstorm
6/26/2009	Litchfield County	0	0	$0	Thunderstorm
6/26/2009	Litchfield County	0	0	$0	Thunderstorm
6/26/2009	New Haven County	0	0	$5,820	Thunderstorm
6/26/2009	New Haven County	0	0	$0	Thunderstorm
6/26/2009	New Haven County	0	0	$0	Thunderstorm
6/26/2009	New Haven County	0	0	$1,746	Thunderstorm
6/26/2009	New Haven County	0	0	$1,164	Thunderstorm
6/26/2009	New Haven County	0	0	$1,164	Thunderstorm
6/26/2009	New Haven County	0	0	$1,164	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
6/26/2009	New London County	0	0	$0	Thunderstorm
6/26/2009	New London County	0	0	$0	Thunderstorm
6/26/2009	Tolland County	0	0	$5,820	Thunderstorm
6/26/2009	Windham County	0	0	$0	Thunderstorm
6/26/2009	Windham County	0	0	$0	Thunderstorm
6/27/2009	New London County	0	0	$0	Thunderstorm
6/27/2009	New London County	0	0	$0	Flood
6/27/2009	Tolland County	0	0	$0	Thunderstorm
6/27/2009	Windham County	0	0	$11,639	Thunderstorm
6/27/2009	Windham County	0	0	$0	Thunderstorm
6/27/2009	Windham County	0	0	$0	Thunderstorm
6/27/2009	Windham County	0	0	$0	Thunderstorm
6/27/2009	Windham County	0	0	$34,918	Flood
6/30/2009	Hartford County	0	0	$2,328	Thunderstorm
6/30/2009	Hartford County	0	0	$2,328	Thunderstorm
6/30/2009	Hartford County	0	0	$0	Thunderstorm
6/30/2009	Hartford County	0	0	$0	Thunderstorm
6/30/2009	Tolland County	0	0	$582	Thunderstorm
6/30/2009	Tolland County	0	0	$1,164	Thunderstorm
7/1/2009	Fairfield County	0	0	$2,328	Thunderstorm
7/1/2009	New London County	0	0	$11,639	Thunderstorm
7/1/2009	New London County	0	0	$8,730	Thunderstorm
7/1/2009	New London County	0	0	$0	Thunderstorm
7/1/2009	New London County	0	0	$0	Flood
7/1/2009	New London County	0	0	$0	Flood
7/1/2009	New London County	0	0	$0	Flood
7/1/2009	New London County	0	0	$0	Flood
7/1/2009	New London County	0	0	$58,197	Flood
7/1/2009	New London County	0	0	$0	Flood
7/1/2009	New London County	0	0	$58,197	Flood
7/2/2009	New Haven County	0	0	$0	Flood
7/2/2009	New Haven County	0	0	$0	Flood
7/2/2009	New London County	0	0	$0	Flood
7/3/2009	Middlesex County	0	0	$582	Thunderstorm
7/3/2009	Middlesex County	0	0	$0	Flood
7/3/2009	Middlesex County	0	0	$0	Thunderstorm
7/3/2009	Middlesex County	0	0	$0	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
7/7/2009	Hartford County	0	0	$8,148	Thunderstorm
7/7/2009	Hartford County	0	0	$582	Thunderstorm
7/7/2009	Hartford County	0	0	$5,820	Thunderstorm
7/7/2009	Hartford County	0	0	$1,164	Thunderstorm
7/7/2009	Hartford County	0	0	$0	Thunderstorm
7/7/2009	Hartford County	0	0	$0	Thunderstorm
7/7/2009	Hartford County	0	0	$0	Thunderstorm
7/7/2009	Hartford County	0	0	$0	Thunderstorm
7/7/2009	Hartford County	0	0	$0	Thunderstorm
7/7/2009	Hartford County	0	0	$0	Thunderstorm
7/7/2009	Hartford County	0	0	$0	Thunderstorm
7/7/2009	Litchfield County	0	0	$0	Thunderstorm
7/7/2009	Litchfield County	0	0	$0	Thunderstorm
7/7/2009	Litchfield County	0	0	$0	Thunderstorm
7/7/2009	Litchfield County	0	0	$0	Thunderstorm
7/7/2009	Litchfield County	0	0	$0	Thunderstorm
7/7/2009	New Haven County	0	0	$9,312	Thunderstorm
7/7/2009	New Haven County	0	0	$0	Thunderstorm
7/7/2009	New Haven County	0	0	$0	Thunderstorm
7/7/2009	New Haven County	0	0	$0	Thunderstorm
7/7/2009	New Haven County	0	0	$0	Thunderstorm
7/7/2009	New Haven County	0	0	$11,639	Thunderstorm
7/7/2009	New London County	0	0	$4,656	Thunderstorm
7/7/2009	Tolland County	0	0	$5,820	Thunderstorm
7/7/2009	Windham County	0	0	$5,820	Thunderstorm
7/7/2009	Windham County	0	0	$1,164	Thunderstorm
7/16/2009	Litchfield County	0	0	$0	Thunderstorm
7/16/2009	Litchfield County	0	0	$0	Thunderstorm
7/16/2009	Litchfield County	0	0	$0	Thunderstorm
7/16/2009	Litchfield County	0	0	$0	Thunderstorm
7/16/2009	Litchfield County	0	0	$0	Flood
7/16/2009	Litchfield County	0	0	$0	Flood
7/16/2009	Litchfield County	0	0	$0	Thunderstorm
7/16/2009	Litchfield County	0	0	$0	Thunderstorm
7/16/2009	Litchfield County	0	0	$0	Thunderstorm
7/16/2009	Litchfield County	0	0	$0	Thunderstorm
7/16/2009	Litchfield County	0	0	$0	Thunderstorm
7/16/2009	Middlesex County	0	0	$8,730	Thunderstorm
7/16/2009	New Haven County	0	0	$8,730	Thunderstorm
7/16/2009	New Haven County	0	0	$8,730	Thunderstorm
7/16/2009	New Haven County	0	0	$0	Flood
7/17/2009	Fairfield County	0	0	$11,639	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
7/17/2009	Fairfield County	0	0	$0	Thunderstorm
7/17/2009	Fairfield County	0	0	$0	Thunderstorm
7/17/2009	Litchfield County	0	0	$0	Thunderstorm
7/17/2009	Litchfield County	0	0	$0	Thunderstorm
7/26/2009	Fairfield County	0	0	$46,558	Thunderstorm
7/26/2009	Hartford County	0	0	$0	Thunderstorm
7/26/2009	Litchfield County	0	0	$4,656	Thunderstorm
7/26/2009	Litchfield County	0	0	$0	Thunderstorm
7/26/2009	Litchfield County	0	0	$0	Thunderstorm
7/26/2009	Litchfield County	0	0	$0	Thunderstorm
7/26/2009	Litchfield County	0	0	$0	Thunderstorm
7/26/2009	Litchfield County	0	0	$0	Thunderstorm
7/26/2009	Tolland County	0	0	$17,459	Thunderstorm
7/27/2009	Hartford County	0	0	$1,164	Thunderstorm
7/27/2009	Hartford County	0	0	$11,639	Thunderstorm
7/27/2009	Hartford County	0	0	$46,558	Thunderstorm
7/27/2009	Hartford County	0	0	$17,459	Thunderstorm
7/27/2009	Hartford County	0	0	$11,639	Thunderstorm
7/31/2009	Fairfield County	0	0	$11,639	Tornado
7/31/2009	Fairfield County	0	0	$5,820	Thunderstorm
7/31/2009	Fairfield County	0	0	$1,746	Thunderstorm
7/31/2009	Fairfield County	0	1	$3,492	Thunderstorm
7/31/2009	Fairfield County	0	0	$11,639	Thunderstorm
7/31/2009	Fairfield County	0	0	$4,656	Thunderstorm
7/31/2009	Fairfield County	0	0	$17,459	Thunderstorm
7/31/2009	Fairfield County	0	1	$8,730	Thunderstorm
7/31/2009	Hartford County	0	0	$582	Thunderstorm
7/31/2009	Middlesex County	0	0	$1,164	Thunderstorm
7/31/2009	Middlesex County	0	0	$8,730	Thunderstorm
7/31/2009	Middlesex County	0	0	$8,730	Thunderstorm
7/31/2009	New Haven County	0	0	$11,639	Tornado
7/31/2009	New Haven County	0	0	$11,639	Thunderstorm
7/31/2009	New Haven County	0	0	$582	Thunderstorm
7/31/2009	New Haven County	0	0	$17,459	Thunderstorm
7/31/2009	New Haven County	0	0	$17,459	Thunderstorm
7/31/2009	New Haven County	0	0	$8,730	Thunderstorm
7/31/2009	New Haven County	0	0	$0	Thunderstorm
7/31/2009	New Haven County	0	0	$14,549	Thunderstorm
7/31/2009	New London County	0	0	$5,820	Thunderstorm
7/31/2009	New London County	0	0	$8,730	Thunderstorm
8/2/2009	New Haven County	0	0	$17,459	Thunderstorm
8/10/2009	Fairfield County	0	0	$5,820	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
8/10/2009	Fairfield County	0	0	$0	Thunderstorm
8/10/2009	Fairfield County	0	0	$40,738	Thunderstorm
8/10/2009	Tolland County	0	0	$582	Thunderstorm
8/12/2009	Fairfield County	0	0	$0	Flood
8/12/2009	New Haven County	0	0	$0	Flood
8/21/2009	Fairfield County	0	0	$1,746	Thunderstorm
8/21/2009	Fairfield County	0	0	$0	Flood
8/21/2009	Hartford County	0	0	$17,459	Thunderstorm
8/21/2009	Hartford County	0	0	$23,279	Thunderstorm
8/21/2009	Hartford County	0	0	$11,639	Thunderstorm
8/21/2009	Hartford County	0	0	$5,820	Thunderstorm
8/21/2009	Litchfield County	0	0	$5,820	Thunderstorm
8/21/2009	Litchfield County	0	0	$5,820	Thunderstorm
8/21/2009	Litchfield County	0	0	$0	Thunderstorm
8/21/2009	Litchfield County	0	0	$0	Thunderstorm
8/21/2009	Litchfield County	0	0	$0	Thunderstorm
8/21/2009	Litchfield County	0	0	$0	Thunderstorm
8/21/2009	Litchfield County	0	0	$0	Thunderstorm
8/21/2009	Litchfield County	0	0	$0	Thunderstorm
8/21/2009	Litchfield County	0	0	$0	Thunderstorm
8/21/2009	Litchfield County	0	0	$0	Thunderstorm
8/21/2009	Litchfield County	0	0	$0	Thunderstorm
8/21/2009	Litchfield County	0	0	$0	Thunderstorm
8/21/2009	Litchfield County	0	0	$0	Thunderstorm
8/21/2009	Litchfield County	0	0	$0	Thunderstorm
8/21/2009	Litchfield County	0	0	$0	Thunderstorm
8/21/2009	Litchfield County	0	0	$0	Thunderstorm
8/21/2009	Litchfield County	0	0	$0	Thunderstorm
8/21/2009	Tolland County	0	0	$5,820	Thunderstorm
8/23/2009	Fairfield County	0	0	$0	Flood
10/7/2009	Fairfield County	0	0	$1,164	Thunderstorm
10/7/2009	Fairfield County	0	0	$5,820	Thunderstorm
10/7/2009	Litchfield County	0	0	$2,328	Thunderstorm
10/7/2009	New Haven County	0	0	$5,820	Thunderstorm
10/7/2009	New Haven County	0	0	$3,492	Thunderstorm
10/18/2009	Fairfield County	0	0	$0	Flood
10/18/2009	New Haven County	0	0	$0	Flood
11/13/2009	Fairfield County	0	0	$7,566	Thunderstorm
11/13/2009	New Haven County	0	0	$5,820	Thunderstorm
11/20/2009	New Haven County	0	1	$0	Thunderstorm
11/28/2009	New Haven County	0	1	$0	Thunderstorm
12/3/2009	Windham County	0	0	$5,820	Thunderstorm
12/9/2009	Fairfield County	0	1	$1,164	Thunderstorm
12/9/2009	New Haven County	0	0	$0	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
12/13/2009	Fairfield County	0	46	$0	Winter
12/19/2009	Fairfield County	0	0	$0	Winter
12/19/2009	Fairfield County	0	0	$0	Winter
12/19/2009	Middlesex County	0	0	$0	Winter
12/19/2009	Middlesex County	0	0	$0	Winter
12/19/2009	New Haven County	0	0	$0	Winter
12/19/2009	New Haven County	0	0	$0	Winter
12/19/2009	New London County	0	0	$0	Winter
12/19/2009	New London County	0	0	$0	Winter
12/19/2009	Tolland County	0	0	$0	Winter
12/19/2009	Windham County	0	0	$0	Winter
12/25/2009	Litchfield County	0	0	$0	Winter
12/25/2009	Litchfield County	0	0	$0	Winter
12/29/2009	Litchfield County	1	0	$0	Thunderstorm
12/29/2009	New Haven County	0	0	$4,656	Thunderstorm
12/29/2009	New London County	0	0	$4,656	Thunderstorm
1/3/2010	Litchfield County	0	0	$0	Winter
1/25/2010	Fairfield County	0	0	$114,516	Thunderstorm
1/25/2010	Hartford County	0	0	$57,258	Thunderstorm
1/25/2010	Litchfield County	0	0	$0	Flood
1/25/2010	Litchfield County	0	0	$0	Flood
1/25/2010	New Haven County	0	0	$5,726	Thunderstorm
1/25/2010	New Haven County	0	0	$57,258	Thunderstorm
1/25/2010	New London County	0	0	$34,355	Thunderstorm
1/28/2010	Fairfield County	0	0	$0	Winter
1/28/2010	Fairfield County	0	0	$0	Winter
1/28/2010	New Haven County	0	0	$0	Winter
1/28/2010	New Haven County	0	0	$57,258	Thunderstorm
2/10/2010	Fairfield County	0	0	$0	Winter
2/10/2010	Middlesex County	0	0	$0	Winter
2/10/2010	New London County	0	0	$0	Winter
2/15/2010	New Haven County	0	0	$0	Winter
2/16/2010	Litchfield County	0	0	$0	Winter
2/16/2010	Litchfield County	0	0	$0	Winter
2/16/2010	Tolland County	0	0	$0	Winter
2/23/2010	Litchfield County	0	0	$0	Winter
2/26/2010	Fairfield County	0	0	$0	Winter
2/26/2010	Fairfield County	0	0	$0	Winter
2/26/2010	Litchfield County	0	0	$0	Winter
2/26/2010	Litchfield County	0	0	$0	Winter
3/13/2010	Fairfield County	0	0	$0	Flood

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
3/13/2010	Fairfield County	0	0	$0	Thunderstorm
3/13/2010	Fairfield County	2	0	$1,145,160	Thunderstorm
3/13/2010	Fairfield County	0	0	$114,516	Thunderstorm
3/13/2010	New Haven County	0	0	$0	Flood
3/13/2010	New Haven County	0	0	$114,516	Thunderstorm
3/13/2010	New London County	0	0	$0	Thunderstorm
3/13/2010	Tolland County	0	0	$57,258	Thunderstorm
3/14/2010	New London County	0	0	$229,032	Flood
3/14/2010	New London County	0	0	$0	Flood
3/14/2010	New London County	0	0	$0	Flood
3/28/2010	Fairfield County	0	0	$0	Thunderstorm
3/29/2010	New London County	0	0	$11,452	Flood
3/29/2010	New London County	0	0	$0	Flood
3/29/2010	New London County	0	0	$188,951	Flood
3/29/2010	New London County	0	0	$28,629	Flood
3/29/2010	New London County	0	0	$297,742	Flood
3/29/2010	New London County	0	0	$229,032	Flood
3/29/2010	New London County	0	0	$91,613	Flood
3/29/2010	Windham County	0	0	$0	Flood
3/30/2010	Fairfield County	0	0	$2,290,320	Flood
3/30/2010	Fairfield County	0	0	$0	Flood
3/30/2010	Fairfield County	0	0	$2,290,320	Flood
3/30/2010	Litchfield County	0	0	$0	Flood
3/30/2010	Litchfield County	0	0	$0	Flood
3/30/2010	Middlesex County	0	0	$360,725	Flood
3/30/2010	Middlesex County	0	0	$5,726	Flood
3/30/2010	New Haven County	0	0	$114,516	Flood
3/30/2010	New Haven County	0	0	$11,452	Flood
3/30/2010	New London County	0	0	$4,580,640	Flood
3/30/2010	New London County	0	0	$1,259,676	Flood
3/30/2010	New London County	0	0	$0	Flood
3/30/2010	New London County	0	0	$0	Flood
3/30/2010	New London County	0	0	$22,903	Flood
3/30/2010	New London County	0	0	$572,580	Flood
4/1/2010	New London County	0	0	$0	Flood
4/12/2010	Litchfield County	0	0	$0	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
4/12/2010	Litchfield County	0	0	$0	Winter
4/14/2010	Litchfield County	0	0	$0	Winter
4/14/2010	Litchfield County	0	0	$0	Winter
4/15/2010	Litchfield County	0	0	$0	Winter
4/15/2010	Litchfield County	0	0	$0	Winter
4/22/2010	New Haven County	0	0	$0	Thunderstorm
4/22/2010	New Haven County	0	0	$4,581	Thunderstorm
4/22/2010	New Haven County	0	0	$3,435	Thunderstorm
4/24/2010	Litchfield County	0	0	$0	Winter
4/28/2010	Litchfield County	0	0	$0	Winter
4/28/2010	Litchfield County	0	0	$0	Winter
4/29/2010	Hartford County	0	0	$286,290	Thunderstorm
4/29/2010	Litchfield County	0	0	$0	Winter
4/29/2010	Litchfield County	0	0	$2,290	Thunderstorm
4/29/2010	New Haven County	0	0	$22,903	Thunderstorm
4/29/2010	New London County	0	0	$114,516	Thunderstorm
5/4/2010	Hartford County	0	0	$22,903	Thunderstorm
5/4/2010	Hartford County	0	0	$1,145	Thunderstorm
5/4/2010	Hartford County	0	0	$5,726	Thunderstorm
5/4/2010	Litchfield County	0	0	$0	Thunderstorm
5/4/2010	Litchfield County	0	0	$0	Thunderstorm
5/4/2010	Litchfield County	0	0	$0	Thunderstorm
5/4/2010	Litchfield County	0	0	$0	Thunderstorm
5/4/2010	Litchfield County	0	0	$0	Thunderstorm
5/4/2010	Litchfield County	0	0	$0	Thunderstorm
5/4/2010	Middlesex County	0	0	$573	Thunderstorm
5/4/2010	Middlesex County	0	0	$573	Thunderstorm
5/4/2010	New Haven County	0	0	$3,435	Thunderstorm
5/4/2010	New London County	0	0	$2,290	Thunderstorm
5/4/2010	New London County	0	0	$4,352	Thunderstorm
5/4/2010	New London County	0	0	$573	Thunderstorm
5/4/2010	Tolland County	0	0	$17,177	Thunderstorm
5/4/2010	Tolland County	0	0	$5,726	Thunderstorm
5/4/2010	Windham County	0	0	$5,726	Thunderstorm
5/8/2010	Fairfield County	1	2	$0	Thunderstorm
5/8/2010	Fairfield County	0	0	$114,516	Thunderstorm
5/8/2010	Hartford County	0	0	$68,710	Thunderstorm
5/8/2010	New London County	0	0	$4,581	Thunderstorm
5/10/2010	Litchfield County	0	0	$0	Winter
5/10/2010	Litchfield County	0	0	$0	Winter
5/26/2010	Hartford County	0	0	$1,145	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
5/26/2010	Hartford County	0	0	$1,145	Thunderstorm
5/26/2010	Hartford County	0	0	$1,145	Thunderstorm
5/26/2010	Hartford County	0	0	$1,145	Thunderstorm
5/26/2010	Hartford County	0	0	$17,177	Thunderstorm
5/26/2010	Hartford County	0	0	$2,290	Thunderstorm
5/26/2010	Hartford County	0	0	$1,145	Thunderstorm
5/26/2010	Hartford County	0	0	$11,452	Thunderstorm
5/26/2010	Hartford County	0	0	$1,145	Thunderstorm
5/26/2010	Hartford County	0	0	$0	Thunderstorm
5/26/2010	Hartford County	0	0	$0	Thunderstorm
5/26/2010	Hartford County	0	0	$0	Thunderstorm
5/26/2010	Litchfield County	0	0	$0	Thunderstorm
5/26/2010	Litchfield County	0	0	$0	Thunderstorm
5/26/2010	Litchfield County	0	0	$0	Thunderstorm
5/26/2010	Litchfield County	0	0	$0	Thunderstorm
5/26/2010	Litchfield County	0	0	$0	Thunderstorm
5/26/2010	Middlesex County	0	0	$1,145	Thunderstorm
5/26/2010	Middlesex County	0	0	$573	Thunderstorm
5/26/2010	New Haven County	0	0	$229	Thunderstorm
5/26/2010	New Haven County	0	0	$229	Thunderstorm
5/26/2010	New Haven County	0	0	$573	Thunderstorm
5/26/2010	New Haven County	0	0	$573	Thunderstorm
5/26/2010	New Haven County	0	0	$573	Thunderstorm
5/26/2010	New London County	0	0	$573	Thunderstorm
5/26/2010	New London County	0	0	$0	Thunderstorm
5/26/2010	Tolland County	0	0	$11,452	Thunderstorm
5/27/2010	Fairfield County	0	0	$0	Thunderstorm
5/27/2010	Middlesex County	0	0	$1,718	Thunderstorm
5/27/2010	New Haven County	0	0	$687	Thunderstorm
5/27/2010	New Haven County	0	0	$40,081	Thunderstorm
5/27/2010	New Haven County	0	0	$344	Thunderstorm
5/29/2010	Tolland County	0	0	$0	Thunderstorm
5/29/2010	Tolland County	0	0	$0	Thunderstorm
6/1/2010	Fairfield County	0	0	$0	Thunderstorm
6/1/2010	Hartford County	0	0	$2,290	Thunderstorm
6/3/2010	Fairfield County	0	0	$6,871	Thunderstorm
6/5/2010	Hartford County	0	0	$17,177	Thunderstorm
6/5/2010	Hartford County	0	0	$114,516	Thunderstorm
6/5/2010	Hartford County	0	0	$57,258	Thunderstorm
6/5/2010	Hartford County	0	0	$9,161	Thunderstorm
6/5/2010	Hartford County	0	0	$0	Thunderstorm
6/5/2010	Tolland County	0	0	$34,355	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
6/5/2010	Tolland County	0	0	$17,177	Thunderstorm
6/5/2010	Tolland County	0	0	$17,177	Thunderstorm
6/5/2010	Tolland County	0	0	$1,145	Thunderstorm
6/5/2010	Tolland County	0	0	$0	Thunderstorm
6/6/2010	Fairfield County	0	0	$6,871	Thunderstorm
6/6/2010	Fairfield County	0	0	$40,081	Thunderstorm
6/6/2010	Fairfield County	0	0	$9,161	Thunderstorm
6/6/2010	Fairfield County	0	0	$3,435	Thunderstorm
6/6/2010	Hartford County	0	0	$1,145	Thunderstorm
6/6/2010	Hartford County	0	0	$5,726	Thunderstorm
6/6/2010	Hartford County	0	0	$1,145	Thunderstorm
6/6/2010	Hartford County	0	0	$5,726	Thunderstorm
6/6/2010	Hartford County	0	0	$0	Thunderstorm
6/6/2010	Litchfield County	0	0	$11,452	Thunderstorm
6/6/2010	Litchfield County	0	1	$0	Thunderstorm
6/6/2010	Litchfield County	0	0	$0	Thunderstorm
6/6/2010	Litchfield County	0	0	$0	Thunderstorm
6/6/2010	Litchfield County	0	0	$0	Thunderstorm
6/6/2010	Litchfield County	0	0	$0	Thunderstorm
6/10/2010	Litchfield County	0	0	$0	Tornado
6/10/2010	Litchfield County	0	1	$0	Thunderstorm
6/10/2010	Litchfield County	0	0	$0	Thunderstorm
6/10/2010	Litchfield County	0	0	$0	Thunderstorm
6/10/2010	Windham County	0	0	$5,726	Thunderstorm
6/10/2010	Windham County	0	0	$11,452	Thunderstorm
6/10/2010	Windham County	0	0	$17,177	Thunderstorm
6/24/2010	Fairfield County	0	0	$0	Tornado
6/24/2010	Fairfield County	0	3	$3,664,512	Tornado
6/24/2010	Fairfield County	0	0	$573	Thunderstorm
6/24/2010	Fairfield County	0	0	$34,355	Thunderstorm
6/24/2010	Fairfield County	0	0	$4,581	Thunderstorm
6/24/2010	Fairfield County	0	0	$17,177	Thunderstorm
6/24/2010	Fairfield County	0	0	$5,726	Thunderstorm
6/24/2010	Fairfield County	0	0	$11,452	Thunderstorm
6/24/2010	Fairfield County	0	1	$45,806	Thunderstorm
6/24/2010	Fairfield County	0	0	$28,629	Thunderstorm
6/24/2010	Fairfield County	0	0	$57,258	Thunderstorm
6/24/2010	Fairfield County	0	0	$8,589	Thunderstorm
6/24/2010	Fairfield County	0	0	$11,452	Thunderstorm
6/24/2010	Fairfield County	0	25	$3,664,512	Thunderstorm
6/24/2010	Fairfield County	0	1	$114,516	Thunderstorm
6/24/2010	Fairfield County	0	0	$0	Thunderstorm
6/24/2010	Fairfield County	0	0	$11,452	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
6/24/2010	Litchfield County	0	0	$0	Thunderstorm
6/24/2010	New Haven County	0	0	$0	Tornado
6/24/2010	New Haven County	0	0	$3,435	Thunderstorm
6/24/2010	New Haven County	0	0	$17,177	Thunderstorm
6/24/2010	New Haven County	0	0	$57,258	Thunderstorm
6/24/2010	New Haven County	0	0	$1,145	Thunderstorm
7/13/2010	Fairfield County	0	0	$0	Flood
7/16/2010	Hartford County	0	0	$57,258	Thunderstorm
7/16/2010	Tolland County	0	0	$34,355	Thunderstorm
7/16/2010	Tolland County	0	0	$85,887	Thunderstorm
7/17/2010	Hartford County	0	0	$85,887	Thunderstorm
7/17/2010	Litchfield County	0	0	$34,355	Thunderstorm
7/17/2010	Litchfield County	0	0	$0	Thunderstorm
7/17/2010	Litchfield County	0	0	$0	Thunderstorm
7/17/2010	Tolland County	0	0	$28,629	Thunderstorm
7/19/2010	Fairfield County	0	0	$28,629	Thunderstorm
7/19/2010	Middlesex County	0	0	$11,452	Thunderstorm
7/19/2010	Middlesex County	0	0	$57,258	Thunderstorm
7/19/2010	Middlesex County	0	0	$22,903	Thunderstorm
7/19/2010	New London County	0	0	$8,589	Thunderstorm
7/21/2010	Fairfield County	0	0	$17,177	Thunderstorm
7/21/2010	Fairfield County	0	0	$28,629	Thunderstorm
7/21/2010	Fairfield County	0	0	$17,177	Thunderstorm
7/21/2010	Fairfield County	0	0	$17,177	Thunderstorm
7/21/2010	Fairfield County	0	0	$4,581	Thunderstorm
7/21/2010	Fairfield County	0	0	$0	Thunderstorm
7/21/2010	Fairfield County	0	0	$0	Thunderstorm
7/21/2010	Fairfield County	0	0	$0	Thunderstorm
7/21/2010	Hartford County	0	0	$647,015	Tornado
7/21/2010	Hartford County	0	0	$0	Flood
7/21/2010	Hartford County	0	0	$3,435	Thunderstorm
7/21/2010	Hartford County	0	0	$57,258	Thunderstorm
7/21/2010	Hartford County	0	0	$57,258	Thunderstorm
7/21/2010	Hartford County	0	0	$5,726	Thunderstorm
7/21/2010	Hartford County	0	0	$3,435	Thunderstorm
7/21/2010	Hartford County	0	0	$5,726	Thunderstorm
7/21/2010	Hartford County	0	0	$0	Thunderstorm
7/21/2010	Hartford County	0	0	$0	Thunderstorm
7/21/2010	Hartford County	0	0	$0	Thunderstorm
7/21/2010	Litchfield County	0	0	$0	Tornado
7/21/2010	Litchfield County	0	0	$4,581	Tornado
7/21/2010	Litchfield County	0	0	$0	Tornado

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
7/21/2010	Litchfield County	0	0	$0	Tornado
7/21/2010	Litchfield County	0	0	$17,177	Tornado
7/21/2010	Litchfield County	0	0	$5,726	Thunderstorm
7/21/2010	Litchfield County	0	0	$0	Thunderstorm
7/21/2010	Litchfield County	0	0	$0	Thunderstorm
7/21/2010	Litchfield County	0	0	$0	Thunderstorm
7/21/2010	Litchfield County	0	0	$0	Thunderstorm
7/21/2010	Litchfield County	0	0	$0	Thunderstorm
7/21/2010	Litchfield County	0	0	$0	Thunderstorm
7/21/2010	Litchfield County	0	0	$0	Thunderstorm
7/21/2010	Litchfield County	0	0	$0	Thunderstorm
7/21/2010	Litchfield County	0	0	$0	Thunderstorm
7/21/2010	Litchfield County	0	0	$0	Thunderstorm
7/21/2010	Middlesex County	0	0	$85,887	Thunderstorm
7/21/2010	Middlesex County	0	0	$8,589	Thunderstorm
7/21/2010	Middlesex County	0	0	$34,355	Thunderstorm
7/21/2010	Middlesex County	0	0	$0	Thunderstorm
7/21/2010	New Haven County	0	0	$0	Thunderstorm
7/21/2010	New Haven County	0	0	$9,161	Thunderstorm
7/21/2010	New London County	0	0	$11,452	Thunderstorm
7/21/2010	New London County	0	0	$5,726	Thunderstorm
7/21/2010	New London County	0	0	$5,726	Thunderstorm
7/21/2010	Windham County	0	0	$11,452	Thunderstorm
7/24/2010	New London County	0	0	$1,145	Thunderstorm
7/24/2010	Windham County	0	0	$11,452	Thunderstorm
7/24/2010	Windham County	0	0	$11,452	Thunderstorm
8/5/2010	New London County	0	0	$0	Tornado
8/5/2010	New London County	0	0	$5,726	Thunderstorm
8/5/2010	New London County	0	0	$11,452	Thunderstorm
8/16/2010	Fairfield County	0	0	$5,726	Thunderstorm
8/22/2010	Fairfield County	0	0	$8,589	Thunderstorm
8/23/2010	New Haven County	0	0	$11,452	Thunderstorm
9/13/2010	Litchfield County	0	0	$0	Thunderstorm
9/16/2010	New Haven County	0	0	$573	Thunderstorm
9/22/2010	Fairfield County	0	0	$11,452	Thunderstorm
9/22/2010	Fairfield County	0	0	$5,726	Thunderstorm
9/30/2010	Litchfield County	0	0	$0	Thunderstorm
9/30/2010	New Haven County	0	0	$572,580	Thunderstorm
10/1/2010	Fairfield County	0	0	$114,516	Thunderstorm
10/1/2010	Fairfield County	0	0	$114,516	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
10/1/2010	Fairfield County	0	0	$0	Thunderstorm
10/1/2010	Fairfield County	0	0	$0	Flood
10/1/2010	Fairfield County	0	0	$0	Flood
10/1/2010	Fairfield County	0	0	$0	Flood
10/1/2010	Fairfield County	0	0	$0	Flood
10/1/2010	Hartford County	0	0	$22,903	Thunderstorm
10/1/2010	Litchfield County	0	0	$0	Thunderstorm
10/1/2010	New Haven County	0	0	$91,613	Thunderstorm
10/1/2010	New Haven County	0	0	$114,516	Thunderstorm
10/1/2010	New Haven County	0	0	$0	Flood
10/1/2010	New London County	0	0	$0	Flood
10/4/2010	Fairfield County	0	0	$0	Thunderstorm
10/4/2010	Fairfield County	0	0	$0	Thunderstorm
10/15/2010	Hartford County	0	3	$22,903	Thunderstorm
10/16/2010	New London County	0	0	$114,516	Thunderstorm
10/16/2010	New London County	0	0	$57,258	Thunderstorm
11/24/2010	Litchfield County	0	0	$2,290	Thunderstorm
12/1/2010	Hartford County	0	0	$85,887	Thunderstorm
12/1/2010	Litchfield County	0	0	$0	Thunderstorm
12/1/2010	Litchfield County	0	0	$0	Thunderstorm
12/1/2010	New Haven County	0	0	$0	Thunderstorm
12/1/2010	Tolland County	0	0	$34,355	Thunderstorm
12/26/2010	Fairfield County	0	0	$0	Winter
12/26/2010	Fairfield County	0	0	$0	Winter
12/26/2010	Hartford County	0	0	$57,258	Winter
12/26/2010	Litchfield County	0	0	$0	Winter
12/26/2010	Litchfield County	0	0	$0	Winter
12/26/2010	Middlesex County	0	0	$0	Winter
12/26/2010	Middlesex County	0	0	$0	Winter
12/26/2010	New Haven County	0	0	$0	Winter
12/26/2010	New Haven County	0	0	$0	Winter
12/26/2010	New London County	0	0	$0	Winter
12/26/2010	New London County	0	0	$0	Winter
12/26/2010	Tolland County	0	0	$0	Winter
12/26/2010	Windham County	0	0	$0	Winter
1/7/2011	Fairfield County	0	0	$0	Winter
1/7/2011	Fairfield County	0	0	$0	Winter
1/7/2011	Hartford County	0	0	$0	Winter
1/7/2011	Litchfield County	0	0	$0	Winter
1/7/2011	Litchfield County	0	0	$0	Winter
1/7/2011	Middlesex County	0	0	$0	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
1/7/2011	New Haven County	0	0	$0	Winter
1/7/2011	New Haven County	0	0	$0	Winter
1/7/2011	New London County	0	0	$0	Winter
1/11/2011	Fairfield County	0	0	$0	Winter
1/11/2011	Fairfield County	0	0	$0	Winter
1/11/2011	Hartford County	0	0	$0	Winter
1/11/2011	Litchfield County	0	0	$0	Winter
1/11/2011	Litchfield County	0	0	$0	Winter
1/11/2011	Middlesex County	0	0	$0	Winter
1/11/2011	Middlesex County	0	0	$0	Winter
1/11/2011	New Haven County	0	0	$0	Winter
1/11/2011	New Haven County	0	0	$0	Winter
1/11/2011	Tolland County	0	0	$0	Winter
1/11/2011	Windham County	0	0	$0	Winter
1/12/2011	New London County	0	0	$0	Winter
1/12/2011	New London County	0	0	$0	Winter
1/18/2011	Fairfield County	0	0	$0	Winter
1/18/2011	Litchfield County	0	0	$0	Winter
1/18/2011	Litchfield County	0	0	$0	Winter
1/18/2011	New Haven County	0	0	$0	Winter
1/19/2011	Fairfield County	0	0	$0	Winter
1/20/2011	New Haven County	0	0	$0	Winter
1/21/2011	Tolland County	0	0	$0	Winter
1/21/2011	Windham County	0	0	$0	Winter
1/23/2011	Litchfield County	0	0	$0	Winter
1/23/2011	Litchfield County	0	0	$0	Winter
1/26/2011	Fairfield County	0	0	$0	Winter
1/26/2011	Fairfield County	0	0	$0	Winter
1/26/2011	Hartford County	0	0	$0	Winter
1/26/2011	Litchfield County	0	0	$0	Winter
1/26/2011	Litchfield County	0	0	$0	Winter
1/26/2011	Middlesex County	0	0	$0	Winter
1/26/2011	Middlesex County	0	0	$0	Winter
1/26/2011	New Haven County	0	0	$0	Winter
1/26/2011	New Haven County	0	0	$0	Winter
1/26/2011	New London County	0	0	$0	Winter
1/26/2011	New London County	0	0	$0	Winter
1/26/2011	Tolland County	0	0	$0	Winter
1/26/2011	Windham County	0	0	$0	Winter
2/1/2011	Fairfield County	0	0	$0	Winter
2/1/2011	Fairfield County	0	0	$0	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
2/1/2011	Hartford County	0	0	$2,775,297	Winter
2/1/2011	Litchfield County	0	0	$0	Winter
2/1/2011	Litchfield County	0	0	$0	Winter
2/1/2011	New Haven County	0	0	$2,331,249	Winter
2/1/2011	New Haven County	0	0	$1,554,166	Winter
2/1/2011	New London County	0	0	$0	Winter
2/1/2011	Tolland County	0	0	$943,601	Winter
2/1/2011	Windham County	0	0	$555,059	Winter
2/2/2011	New Haven County	0	0	$136,545	Winter
2/3/2011	Fairfield County	0	0	$0	Winter
2/7/2011	New Haven County	0	0	$0	Winter
2/7/2011	New Haven County	0	0	$0	Winter
2/8/2011	New London County	0	0	$0	Winter
2/17/2011	Fairfield County	1	0	$0	Winter
2/18/2011	Hartford County	0	0	$0	Thunderstorm
2/19/2011	Hartford County	0	0	$44,405	Thunderstorm
2/19/2011	Tolland County	0	0	$22,202	Thunderstorm
3/7/2011	Fairfield County	0	0	$0	Flood
3/7/2011	Hartford County	0	0	$111,012	Flood
3/7/2011	Hartford County	0	0	$55,506	Flood
3/7/2011	Litchfield County	0	0	$0	Flood
3/7/2011	New Haven County	0	0	$0	Flood
3/7/2011	Tolland County	0	3	$0	Flood
5/18/2011	New Haven County	0	0	$0	Flood
5/20/2011	Litchfield County	0	0	$0	Flood
6/1/2011	Litchfield County	0	0	$0	Thunderstorm
6/1/2011	Litchfield County	0	0	$0	Thunderstorm
6/1/2011	Litchfield County	0	0	$0	Thunderstorm
6/1/2011	Litchfield County	0	0	$0	Thunderstorm
6/1/2011	Middlesex County	0	0	$0	Thunderstorm
6/1/2011	New London County	0	0	$0	Thunderstorm
6/1/2011	New London County	0	0	$0	Thunderstorm
6/1/2011	New London County	0	0	$0	Thunderstorm
6/8/2011	Litchfield County	0	0	$0	Thunderstorm
6/8/2011	Litchfield County	0	0	$0	Thunderstorm
6/8/2011	Litchfield County	0	0	$0	Thunderstorm
6/8/2011	Litchfield County	0	0	$0	Thunderstorm
6/8/2011	Litchfield County	0	0	$0	Thunderstorm
6/8/2011	Middlesex County	0	0	$0	Thunderstorm
6/8/2011	Middlesex County	0	0	$0	Thunderstorm
6/9/2011	Fairfield County	0	0	$22,202	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
6/9/2011	Fairfield County	0	0	$83,259	Thunderstorm
6/9/2011	Fairfield County	0	0	$13,876	Thunderstorm
6/9/2011	Fairfield County	0	0	$13,876	Thunderstorm
6/9/2011	Fairfield County	0	0	$1,665	Thunderstorm
6/9/2011	Fairfield County	0	0	$13,876	Thunderstorm
6/9/2011	Fairfield County	0	0	$11,101	Thunderstorm
6/9/2011	Fairfield County	0	0	$8,326	Thunderstorm
6/9/2011	Fairfield County	0	0	$3,330	Thunderstorm
6/9/2011	Fairfield County	0	0	$5,551	Thunderstorm
6/9/2011	Fairfield County	0	0	$0	Thunderstorm
6/9/2011	Fairfield County	0	0	$0	Thunderstorm
6/9/2011	Hartford County	0	0	$33,304	Thunderstorm
6/9/2011	Litchfield County	0	0	$0	Tornado
6/9/2011	Litchfield County	0	0	$0	Thunderstorm
6/9/2011	Litchfield County	0	0	$0	Thunderstorm
6/9/2011	Litchfield County	0	0	$0	Thunderstorm
6/9/2011	Litchfield County	0	0	$0	Thunderstorm
6/9/2011	Litchfield County	0	0	$0	Thunderstorm
6/9/2011	Litchfield County	0	0	$0	Thunderstorm
6/9/2011	Litchfield County	0	0	$0	Thunderstorm
6/9/2011	Litchfield County	0	0	$0	Thunderstorm
6/9/2011	Litchfield County	0	0	$0	Thunderstorm
6/9/2011	Litchfield County	0	0	$0	Thunderstorm
6/9/2011	Litchfield County	0	0	$0	Thunderstorm
6/9/2011	Litchfield County	0	0	$0	Thunderstorm
6/9/2011	Litchfield County	0	0	$0	Thunderstorm
6/9/2011	Litchfield County	0	0	$0	Thunderstorm
6/9/2011	Litchfield County	0	0	$0	Thunderstorm
6/9/2011	Litchfield County	0	0	$0	Thunderstorm
6/9/2011	Litchfield County	0	0	$0	Thunderstorm
6/9/2011	Litchfield County	0	0	$0	Thunderstorm
6/9/2011	Litchfield County	0	0	$0	Thunderstorm
6/9/2011	Litchfield County	0	0	$0	Thunderstorm
6/9/2011	Litchfield County	0	0	$0	Thunderstorm
6/9/2011	Litchfield County	0	0	$0	Thunderstorm
6/9/2011	Litchfield County	0	0	$0	Thunderstorm
6/9/2011	Middlesex County	0	0	$833	Thunderstorm
6/9/2011	New Haven County	0	0	$3,330	Thunderstorm
6/9/2011	New Haven County	0	1	$0	Thunderstorm
6/9/2011	New Haven County	0	1	$0	Thunderstorm
6/9/2011	New Haven County	0	0	$8,326	Thunderstorm
6/9/2011	New Haven County	0	0	$8,326	Thunderstorm
6/9/2011	New Haven County	0	0	$8,326	Thunderstorm
6/9/2011	New Haven County	0	0	$13,876	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
6/9/2011	New Haven County	0	0	$1,110	Thunderstorm
6/9/2011	New Haven County	0	0	$1,110	Thunderstorm
6/9/2011	New Haven County	0	0	$0	Thunderstorm
6/9/2011	New Haven County	0	0	$8,326	Thunderstorm
6/9/2011	New Haven County	0	0	$8,326	Thunderstorm
6/9/2011	New Haven County	0	0	$8,326	Thunderstorm
6/9/2011	New Haven County	0	0	$8,326	Thunderstorm
6/9/2011	New Haven County	0	0	$8,326	Thunderstorm
6/9/2011	New Haven County	0	0	$8,326	Thunderstorm
6/9/2011	New Haven County	0	0	$8,326	Thunderstorm
6/9/2011	New Haven County	0	0	$8,326	Thunderstorm
6/9/2011	New Haven County	0	0	$3,330	Thunderstorm
6/9/2011	Windham County	0	0	$5,551	Thunderstorm
6/17/2011	Fairfield County	0	0	$1,110	Thunderstorm
6/17/2011	Litchfield County	0	0	$0	Thunderstorm
6/17/2011	Litchfield County	0	0	$0	Thunderstorm
6/17/2011	New Haven County	0	0	$0	Thunderstorm
6/23/2011	Fairfield County	0	0	$0	Flood
6/23/2011	Fairfield County	1	2	$8,326	Thunderstorm
6/23/2011	New Haven County	0	0	$0	Flood
6/23/2011	New Haven County	0	0	$0	Flood
6/23/2011	New London County	0	0	$0	Flood
7/6/2011	Hartford County	0	0	$5,551	Thunderstorm
7/8/2011	Middlesex County	0	0	$5,551	Thunderstorm
7/8/2011	Middlesex County	0	0	$0	Flood
7/8/2011	Middlesex County	0	0	$277,530	Flood
7/8/2011	New Haven County	0	0	$3,885	Thunderstorm
7/8/2011	New Haven County	0	0	$16,652	Thunderstorm
7/8/2011	New Haven County	0	0	$1,110,119	Flood
7/26/2011	Fairfield County	0	0	$8,326	Thunderstorm
7/26/2011	Fairfield County	0	0	$5,551	Thunderstorm
7/26/2011	Fairfield County	0	0	$3,885	Thunderstorm
7/26/2011	Hartford County	0	0	$1,110	Thunderstorm
7/26/2011	Hartford County	0	0	$27,753	Thunderstorm
7/26/2011	Hartford County	0	0	$0	Thunderstorm
7/26/2011	Middlesex County	0	0	$1,665	Thunderstorm
7/26/2011	New Haven County	0	0	$1,665	Thunderstorm
7/26/2011	New London County	0	0	$833	Thunderstorm
7/26/2011	Tolland County	0	0	$3,330	Thunderstorm
7/26/2011	Windham County	0	0	$33,304	Thunderstorm
7/26/2011	Windham County	0	0	$83,259	Thunderstorm
7/29/2011	Fairfield County	0	0	$5,551	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
7/29/2011	Fairfield County	0	0	$3,330	Thunderstorm
7/29/2011	Fairfield County	0	0	$44,405	Thunderstorm
8/1/2011	Fairfield County	0	0	$5,551	Thunderstorm
8/1/2011	Fairfield County	0	0	$3,330	Thunderstorm
8/1/2011	Fairfield County	0	0	$1,665	Thunderstorm
8/1/2011	Fairfield County	0	0	$2,220	Thunderstorm
8/1/2011	Fairfield County	0	0	$0	Thunderstorm
8/1/2011	Fairfield County	0	0	$0	Thunderstorm
8/1/2011	Fairfield County	0	0	$0	Thunderstorm
8/1/2011	Hartford County	0	0	$0	Thunderstorm
8/1/2011	Hartford County	0	0	$0	Thunderstorm
8/1/2011	Hartford County	0	0	$0	Thunderstorm
8/1/2011	Hartford County	0	0	$0	Thunderstorm
8/1/2011	Hartford County	0	0	$0	Thunderstorm
8/1/2011	Litchfield County	0	0	$0	Thunderstorm
8/1/2011	Middlesex County	0	0	$55,506	Thunderstorm
8/1/2011	New Haven County	0	0	$11,101	Thunderstorm
8/1/2011	New Haven County	0	0	$0	Thunderstorm
8/1/2011	New Haven County	0	0	$0	Thunderstorm
8/1/2011	New Haven County	0	0	$0	Thunderstorm
8/1/2011	New Haven County	0	0	$0	Thunderstorm
8/1/2011	New Haven County	0	0	$0	Thunderstorm
8/1/2011	New Haven County	0	0	$0	Thunderstorm
8/1/2011	New Haven County	0	0	$8,326	Thunderstorm
8/1/2011	New Haven County	0	0	$8,326	Thunderstorm
8/1/2011	New Haven County	0	0	$3,330	Thunderstorm
8/1/2011	New Haven County	0	0	$2,220	Thunderstorm
8/1/2011	New Haven County	0	0	$3,330	Thunderstorm
8/1/2011	New Haven County	0	0	$16,652	Thunderstorm
8/1/2011	New Haven County	0	0	$8,326	Thunderstorm
8/1/2011	New Haven County	0	0	$0	Flood
8/14/2011	Fairfield County	0	0	$0	Flood
8/14/2011	New Haven County	0	0	$0	Flood
8/15/2011	New Haven County	0	0	$0	Flood
8/15/2011	New Haven County	0	0	$0	Flood
8/19/2011	Litchfield County	0	0	$0	Tornado
8/21/2011	Fairfield County	0	0	$1,110	Thunderstorm
8/21/2011	Fairfield County	0	0	$833	Thunderstorm
8/21/2011	Fairfield County	0	0	$0	Thunderstorm
8/21/2011	Fairfield County	0	0	$5,551	Thunderstorm
8/21/2011	Fairfield County	0	0	$0	Thunderstorm
8/21/2011	Hartford County	0	0	$16,652	Thunderstorm
8/21/2011	Litchfield County	0	0	$0	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
8/21/2011	Litchfield County	0	0	$0	Thunderstorm
8/21/2011	Litchfield County	0	0	$0	Thunderstorm
8/21/2011	Litchfield County	0	0	$0	Thunderstorm
8/21/2011	New Haven County	0	0	$1,665	Thunderstorm
8/27/2011	Fairfield County	0	0	$0	Flood
8/28/2011	Fairfield County	0	0	$0	Flood
8/28/2011	Fairfield County	0	0	$0	Hurricanes
8/28/2011	Fairfield County	0	0	$0	Flood
8/28/2011	Hartford County	0	0	$22,202,375	Hurricanes
8/28/2011	Hartford County	0	0	$0	Flood
8/28/2011	Hartford County	1	0	$8,880,950	Flood
8/28/2011	Litchfield County	0	0	$0	Hurricanes
8/28/2011	Litchfield County	0	0	$0	Hurricanes
8/28/2011	Litchfield County	0	0	$0	Flood
8/28/2011	Litchfield County	0	0	$0	Flood
8/28/2011	Litchfield County	0	0	$0	Flood
8/28/2011	Litchfield County	0	0	$0	Flood
8/28/2011	Litchfield County	0	0	$0	Flood
8/28/2011	Litchfield County	0	0	$0	Flood
8/28/2011	Litchfield County	0	0	$0	Flood
8/28/2011	Litchfield County	0	0	$0	Flood
8/28/2011	Middlesex County	0	0	$0	Flood
8/28/2011	Middlesex County	0	0	$0	Hurricanes
8/28/2011	New Haven County	0	0	$0	Flood
8/28/2011	New Haven County	0	0	$0	Hurricanes
8/28/2011	New Haven County	1	0	$0	Hurricanes
8/28/2011	New Haven County	0	0	$0	Flood
8/28/2011	New London County	0	0	$0	Flood
8/28/2011	New London County	0	0	$0	Hurricanes
8/28/2011	Tolland County	0	0	$22,202,375	Hurricanes
8/28/2011	Windham County	0	0	$22,202,375	Hurricanes
9/6/2011	Litchfield County	0	0	$0	Flood
9/8/2011	Fairfield County	0	0	$0	Flood
9/8/2011	Hartford County	0	0	$19,982	Flood
9/8/2011	Hartford County	0	0	$111,012	Flood
9/8/2011	Hartford County	0	0	$0	Flood
9/8/2011	Litchfield County	0	0	$0	Flood
9/8/2011	New Haven County	0	0	$0	Flood
9/23/2011	Fairfield County	0	0	$0	Flood
9/23/2011	Fairfield County	0	0	$0	Flood
10/29/2011	Fairfield County	0	0	$0	Winter
10/29/2011	Fairfield County	0	0	$0	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
10/29/2011	Hartford County	0	0	$8,880,950	Winter
10/29/2011	Litchfield County	0	0	$0	Winter
10/29/2011	Litchfield County	0	0	$0	Winter
10/29/2011	Middlesex County	0	0	$0	Winter
10/29/2011	New Haven County	0	0	$0	Winter
10/29/2011	New Haven County	0	1	$0	Winter
10/29/2011	New London County	0	0	$0	Winter
10/29/2011	Tolland County	0	0	$3,330,356	Winter
10/29/2011	Windham County	0	0	$0	Winter
12/21/2011	Hartford County	0	0	$22,202	Thunderstorm
12/21/2011	New London County	0	0	$1,110	Thunderstorm
12/22/2011	New London County	0	0	$1,665	Thunderstorm
12/22/2011	Tolland County	0	0	$11,101	Thunderstorm
12/22/2011	Windham County	0	0	$11,101	Thunderstorm
12/22/2011	Windham County	0	0	$11,101	Thunderstorm
12/27/2011	New Haven County	0	0	$0	Thunderstorm
12/27/2011	New London County	0	0	$0	Thunderstorm
12/27/2011	Windham County	0	0	$3,330	Thunderstorm
1/16/2012	Tolland County	0	0	$0	Winter
1/16/2012	Windham County	0	0	$0	Winter
1/19/2012	Windham County	0	0	$0	Winter
1/21/2012	Fairfield County	0	0	$0	Winter
1/21/2012	Fairfield County	0	0	$0	Winter
1/21/2012	Hartford County	0	0	$0	Winter
1/21/2012	Middlesex County	0	0	$0	Winter
1/21/2012	Middlesex County	0	0	$0	Winter
1/21/2012	New Haven County	0	0	$0	Winter
1/21/2012	New Haven County	0	0	$0	Winter
1/21/2012	New London County	0	0	$0	Winter
1/21/2012	New London County	0	0	$0	Winter
1/21/2012	Tolland County	0	0	$0	Winter
1/21/2012	Windham County	0	0	$0	Winter
2/24/2012	Hartford County	0	0	$0	Winter
2/24/2012	Tolland County	0	0	$0	Winter
2/29/2012	Hartford County	0	0	$0	Winter
2/29/2012	Litchfield County	0	0	$0	Winter
2/29/2012	Tolland County	0	0	$0	Winter
2/29/2012	Windham County	0	0	$0	Winter
3/1/2012	Litchfield County	0	0	$0	Winter
4/12/2012	Hartford County	0	0	$0	Drought
4/12/2012	Tolland County	0	0	$0	Drought

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
4/12/2012	Windham County	0	0	$0	Drought
5/26/2012	Middlesex County	0	0	$544	Thunderstorm
5/26/2012	Middlesex County	0	0	$1,088	Thunderstorm
5/26/2012	Middlesex County	0	0	$0	Thunderstorm
5/29/2012	Litchfield County	0	0	$0	Thunderstorm
6/3/2012	New London County	0	0	$0	Tornado
6/4/2012	New Haven County	0	0	$0	Flood
6/22/2012	Hartford County	0	0	$5,438	Thunderstorm
6/22/2012	Hartford County	0	0	$16,314	Thunderstorm
6/22/2012	Hartford County	0	0	$0	Flood
6/22/2012	Hartford County	0	0	$0	Thunderstorm
6/22/2012	Litchfield County	0	0	$0	Thunderstorm
6/22/2012	Litchfield County	0	0	$0	Thunderstorm
6/22/2012	Litchfield County	0	0	$0	Thunderstorm
6/22/2012	Litchfield County	0	0	$0	Thunderstorm
6/22/2012	Litchfield County	0	0	$0	Thunderstorm
6/22/2012	Litchfield County	0	0	$0	Thunderstorm
6/22/2012	Litchfield County	0	0	$0	Thunderstorm
6/22/2012	Litchfield County	0	0	$0	Thunderstorm
6/22/2012	Litchfield County	0	0	$0	Thunderstorm
6/22/2012	Litchfield County	0	0	$0	Thunderstorm
6/22/2012	Litchfield County	0	0	$0	Thunderstorm
6/22/2012	Litchfield County	0	0	$0	Thunderstorm
6/22/2012	Litchfield County	0	0	$0	Thunderstorm
6/22/2012	Litchfield County	0	0	$0	Thunderstorm
6/22/2012	New Haven County	0	0	$1,631	Thunderstorm
6/22/2012	Tolland County	0	0	$10,876	Thunderstorm
6/22/2012	Tolland County	0	0	$10,876	Thunderstorm
6/22/2012	Tolland County	0	0	$32,628	Thunderstorm
6/22/2012	Tolland County	0	0	$0	Thunderstorm
6/22/2012	Tolland County	0	0	$0	Thunderstorm
6/22/2012	Tolland County	0	0	$0	Thunderstorm
6/22/2012	Tolland County	0	0	$0	Thunderstorm
6/22/2012	Windham County	0	0	$16,314	Thunderstorm
6/22/2012	Windham County	0	0	$32,628	Thunderstorm
6/22/2012	Windham County	0	0	$32,628	Thunderstorm
6/22/2012	Windham County	0	0	$0	Thunderstorm
6/25/2012	Litchfield County	0	0	$0	Thunderstorm
6/25/2012	Litchfield County	0	0	$0	Thunderstorm
6/25/2012	New London County	0	11	$0	Thunderstorm
6/25/2012	New London County	0	0	$0	Flood
7/1/2012	Litchfield County	0	0	$0	Thunderstorm
7/1/2012	Litchfield County	0	0	$0	Thunderstorm
7/1/2012	Litchfield County	0	0	$0	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
7/1/2012	Litchfield County	0	0	$0	Thunderstorm
7/1/2012	Litchfield County	0	0	$0	Thunderstorm
7/1/2012	Litchfield County	0	0	$0	Thunderstorm
7/1/2012	Litchfield County	0	0	$0	Thunderstorm
7/1/2012	Litchfield County	0	0	$0	Thunderstorm
7/1/2012	Litchfield County	0	0	$0	Thunderstorm
7/1/2012	Litchfield County	0	0	$0	Thunderstorm
7/1/2012	Middlesex County	0	0	$0	Thunderstorm
7/1/2012	Middlesex County	0	0	$0	Thunderstorm
7/1/2012	Middlesex County	0	0	$0	Thunderstorm
7/1/2012	Middlesex County	0	0	$0	Thunderstorm
7/1/2012	Middlesex County	0	0	$0	Thunderstorm
7/1/2012	Middlesex County	0	0	$0	Thunderstorm
7/1/2012	Middlesex County	0	0	$0	Thunderstorm
7/1/2012	Middlesex County	0	0	$0	Thunderstorm
7/1/2012	New Haven County	0	0	$0	Thunderstorm
7/1/2012	New Haven County	0	0	$0	Thunderstorm
7/1/2012	New Haven County	0	0	$0	Thunderstorm
7/1/2012	New Haven County	0	0	$0	Thunderstorm
7/1/2012	New Haven County	0	0	$5,438	Thunderstorm
7/1/2012	New Haven County	0	0	$0	Thunderstorm
7/1/2012	New Haven County	0	0	$0	Thunderstorm
7/1/2012	New Haven County	0	0	$0	Thunderstorm
7/1/2012	New Haven County	0	0	$0	Thunderstorm
7/1/2012	New London County	0	0	$8,157	Thunderstorm
7/1/2012	New London County	0	0	$0	Thunderstorm
7/1/2012	New London County	0	0	$0	Thunderstorm
7/1/2012	Tolland County	0	0	$10,876	Thunderstorm
7/1/2012	Windham County	0	0	$0	Thunderstorm
7/2/2012	Tolland County	0	1	$10,876	Thunderstorm
7/4/2012	Fairfield County	0	0	$3,263	Thunderstorm
7/4/2012	Fairfield County	0	0	$1,631	Thunderstorm
7/4/2012	Fairfield County	0	0	$3,263	Thunderstorm
7/15/2012	Fairfield County	0	0	$10,876	Thunderstorm
7/15/2012	Fairfield County	0	0	$0	Flood
7/15/2012	Fairfield County	0	0	$0	Flood
7/15/2012	Fairfield County	0	0	$1,631	Thunderstorm
7/15/2012	Fairfield County	0	0	$1,088	Thunderstorm
7/18/2012	Fairfield County	0	0	$81,571	Thunderstorm
7/18/2012	Fairfield County	0	0	$2,175	Thunderstorm
7/18/2012	Fairfield County	0	0	$816	Thunderstorm
7/18/2012	Hartford County	0	0	$1,088	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
7/18/2012	Hartford County	0	0	$10,876	Thunderstorm
7/18/2012	Hartford County	0	0	$0	Thunderstorm
7/18/2012	Hartford County	0	0	$0	Thunderstorm
7/18/2012	Litchfield County	0	0	$0	Thunderstorm
7/18/2012	Litchfield County	0	0	$0	Thunderstorm
7/18/2012	Litchfield County	0	0	$0	Thunderstorm
7/18/2012	New Haven County	0	0	$0	Thunderstorm
7/18/2012	New London County	0	0	$816	Thunderstorm
7/18/2012	New London County	0	0	$8,157	Thunderstorm
7/18/2012	Tolland County	0	0	$0	Thunderstorm
7/18/2012	Windham County	0	0	$0	Thunderstorm
7/18/2012	Windham County	0	0	$0	Thunderstorm
7/18/2012	Windham County	0	0	$0	Thunderstorm
7/18/2012	Windham County	0	0	$0	Thunderstorm
7/18/2012	Windham County	0	0	$0	Thunderstorm
7/24/2012	Fairfield County	0	0	$816	Thunderstorm
7/24/2012	Fairfield County	0	0	$0	Thunderstorm
7/24/2012	Litchfield County	0	0	$0	Thunderstorm
7/24/2012	Litchfield County	0	0	$0	Thunderstorm
7/24/2012	New Haven County	0	0	$5,438	Thunderstorm
7/24/2012	New Haven County	0	0	$3,263	Thunderstorm
7/26/2012	Fairfield County	0	0	$5,438	Thunderstorm
7/26/2012	Fairfield County	0	0	$1,088	Thunderstorm
7/26/2012	Fairfield County	0	0	$816	Thunderstorm
7/26/2012	Fairfield County	0	0	$1,088	Thunderstorm
7/26/2012	Litchfield County	0	0	$0	Thunderstorm
7/26/2012	New Haven County	0	0	$1,631	Thunderstorm
7/26/2012	New Haven County	0	0	$1,631	Thunderstorm
7/26/2012	New Haven County	0	0	$1,088	Thunderstorm
7/28/2012	Hartford County	0	0	$10,876	Flood
7/28/2012	Hartford County	0	0	$0	Flood
7/28/2012	Litchfield County	0	0	$0	Thunderstorm
7/28/2012	Tolland County	0	0	$27,190	Flood
8/1/2012	New Haven County	0	0	$0	Flood
8/1/2012	New Haven County	0	0	$0	Flood
8/5/2012	Fairfield County	0	0	$54,381	Thunderstorm
8/5/2012	Hartford County	0	0	$5,438	Thunderstorm
8/5/2012	Hartford County	0	0	$3,263	Thunderstorm
8/5/2012	Hartford County	0	0	$5,438	Thunderstorm
8/5/2012	Hartford County	0	0	$10,876	Thunderstorm
8/5/2012	Hartford County	0	0	$0	Flood
8/10/2012	Hartford County	0	0	$108,761	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
8/10/2012	Hartford County	0	0	$10,876	Thunderstorm
8/10/2012	Hartford County	0	0	$10,876	Thunderstorm
8/10/2012	Middlesex County	0	0	$3,263	Thunderstorm
8/10/2012	Middlesex County	0	0	$3,263	Thunderstorm
8/10/2012	Middlesex County	0	0	$5,438	Thunderstorm
8/10/2012	Middlesex County	0	0	$0	Flood
8/10/2012	New Haven County	0	0	$0	Thunderstorm
8/10/2012	New Haven County	0	0	$0	Thunderstorm
8/10/2012	New Haven County	0	0	$10,876	Thunderstorm
8/10/2012	New Haven County	0	0	$0	Flood
8/10/2012	Tolland County	0	0	$4,350	Thunderstorm
8/10/2012	Tolland County	0	0	$5,438	Thunderstorm
8/10/2012	Tolland County	0	0	$1,088	Thunderstorm
8/10/2012	Tolland County	0	0	$10,876	Thunderstorm
8/10/2012	Tolland County	0	0	$3,263	Thunderstorm
8/10/2012	Tolland County	0	0	$0	Flood
8/10/2012	Windham County	0	0	$10,876	Thunderstorm
8/15/2012	Tolland County	0	1	$0	Thunderstorm
9/8/2012	Fairfield County	0	0	$2,175	Thunderstorm
9/8/2012	Fairfield County	0	0	$5,438	Thunderstorm
9/8/2012	Hartford County	0	0	$2,175	Thunderstorm
9/8/2012	Hartford County	0	0	$5,438	Thunderstorm
9/8/2012	Litchfield County	0	0	$0	Thunderstorm
9/8/2012	Litchfield County	0	0	$0	Thunderstorm
9/8/2012	New Haven County	0	0	$1,631	Thunderstorm
9/8/2012	Tolland County	0	0	$5,438	Thunderstorm
9/18/2012	Fairfield County	0	0	$21,752	Thunderstorm
9/18/2012	Fairfield County	0	0	$0	Flood
9/18/2012	Fairfield County	0	0	$2,175	Thunderstorm
9/18/2012	Fairfield County	0	0	$2,175	Thunderstorm
9/18/2012	Fairfield County	0	0	$2,175	Thunderstorm
9/18/2012	Hartford County	0	0	$16,314	Thunderstorm
9/18/2012	Hartford County	0	0	$0	Flood
9/18/2012	Hartford County	0	0	$10,876	Thunderstorm
9/18/2012	Hartford County	0	0	$5,438	Thunderstorm
9/18/2012	Hartford County	0	0	$5,438	Thunderstorm
9/18/2012	Litchfield County	0	0	$0	Thunderstorm
9/18/2012	Litchfield County	0	0	$0	Thunderstorm
9/18/2012	Litchfield County	0	0	$0	Thunderstorm
9/18/2012	Litchfield County	0	0	$0	Thunderstorm
9/18/2012	Litchfield County	0	0	$0	Thunderstorm
9/18/2012	Litchfield County	0	0	$0	Thunderstorm
9/18/2012	Litchfield County	0	0	$0	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
9/18/2012	Middlesex County	0	0	$5,438	Thunderstorm
9/18/2012	New Haven County	0	0	$21,752	Thunderstorm
9/18/2012	New Haven County	0	0	$0	Flood
9/18/2012	Tolland County	0	0	$10,876	Thunderstorm
9/18/2012	Tolland County	0	0	$5,438	Thunderstorm
9/18/2012	Tolland County	0	0	$5,438	Thunderstorm
9/18/2012	Tolland County	0	0	$5,438	Thunderstorm
9/18/2012	Tolland County	0	0	$5,438	Thunderstorm
9/18/2012	Windham County	0	0	$5,438	Thunderstorm
9/28/2012	Fairfield County	0	0	$0	Flood
9/28/2012	Fairfield County	0	0	$0	Flood
9/28/2012	Fairfield County	0	0	$0	Flood
9/28/2012	New Haven County	0	0	$0	Flood
9/28/2012	New Haven County	0	0	$0	Flood
9/28/2012	New Haven County	0	0	$0	Flood
9/28/2012	New Haven County	0	0	$0	Flood
10/29/2012	Fairfield County	0	0	$0	Flood
10/29/2012	Fairfield County	1	0	$978,850	Thunderstorm
10/29/2012	Fairfield County	1	0	$978,850	Thunderstorm
10/29/2012	Hartford County	0	0	$1,305,133	Thunderstorm
10/29/2012	Litchfield County	0	0	$0	Thunderstorm
10/29/2012	Litchfield County	0	0	$0	Thunderstorm
10/29/2012	Middlesex County	0	0	$0	Flood
10/29/2012	Middlesex County	0	0	$217,522	Thunderstorm
10/29/2012	Middlesex County	0	0	$217,522	Thunderstorm
10/29/2012	New Haven County	0	0	$0	Flood
10/29/2012	New Haven County	0	0	$326,283	Thunderstorm
10/29/2012	New Haven County	0	0	$217,522	Thunderstorm
10/29/2012	New London County	0	0	$0	Flood
10/29/2012	New London County	0	0	$1,087,611	Thunderstorm
10/29/2012	New London County	0	0	$326,283	Thunderstorm
10/29/2012	Tolland County	1	2	$477,461	Thunderstorm
10/29/2012	Windham County	0	0	$476,374	Thunderstorm
11/7/2012	Fairfield County	0	0	$0	Winter
11/7/2012	Fairfield County	0	0	$0	Winter
11/7/2012	Hartford County	0	0	$0	Winter
11/7/2012	Litchfield County	0	0	$0	Winter
11/7/2012	Litchfield County	0	0	$0	Winter
11/7/2012	Middlesex County	0	0	$0	Winter
11/7/2012	New Haven County	0	0	$0	Winter
11/7/2012	New Haven County	0	0	$0	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
11/7/2012	New London County	0	0	$217,522	Thunderstorm
11/7/2012	Tolland County	0	0	$0	Winter
11/7/2012	Windham County	0	0	$0	Winter
12/26/2012	Litchfield County	0	0	$0	Winter
12/26/2012	Litchfield County	0	0	$0	Winter
12/26/2012	New London County	0	0	$2,175	Thunderstorm
12/29/2012	Fairfield County	0	0	$0	Winter
12/29/2012	Fairfield County	0	0	$0	Winter
12/29/2012	Hartford County	0	0	$0	Winter
12/29/2012	Litchfield County	0	0	$0	Winter
12/29/2012	Litchfield County	0	0	$0	Winter
12/29/2012	Middlesex County	0	0	$0	Winter
12/29/2012	Middlesex County	0	0	$0	Winter
12/29/2012	New Haven County	0	0	$0	Winter
12/29/2012	New Haven County	0	0	$0	Winter
12/29/2012	New London County	0	0	$0	Winter
12/29/2012	New London County	0	0	$0	Winter
12/29/2012	Tolland County	0	0	$0	Winter
12/29/2012	Windham County	0	0	$0	Winter
1/16/2013	Litchfield County	0	0	$0	Winter
1/16/2013	Litchfield County	0	0	$0	Winter
1/22/2013	Litchfield County	0	0	$0	Winter
1/24/2013	Litchfield County	0	0	$0	Winter
1/31/2013	Fairfield County	0	0	$107,191	Thunderstorm
1/31/2013	Hartford County	0	0	$37,517	Thunderstorm
1/31/2013	Litchfield County	0	0	$0	Thunderstorm
1/31/2013	Litchfield County	0	0	$0	Thunderstorm
1/31/2013	Middlesex County	0	0	$10,719	Thunderstorm
1/31/2013	New Haven County	0	0	$10,719	Thunderstorm
1/31/2013	New Haven County	0	0	$0	Thunderstorm
1/31/2013	New London County	0	0	$53,596	Thunderstorm
1/31/2013	New London County	0	0	$10,719	Thunderstorm
1/31/2013	Tolland County	0	0	$21,438	Thunderstorm
1/31/2013	Windham County	0	0	$16,079	Thunderstorm
2/8/2013	Fairfield County	0	0	$0	Winter
2/8/2013	Fairfield County	0	0	$0	Winter
2/8/2013	Hartford County	0	0	$0	Winter
2/8/2013	Hartford County	0	0	$0	Winter
2/8/2013	Litchfield County	0	0	$0	Winter
2/8/2013	Litchfield County	0	0	$0	Winter
2/8/2013	Middlesex County	0	0	$0	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
2/8/2013	Middlesex County	0	0	$0	Winter
2/8/2013	New Haven County	0	0	$0	Winter
2/8/2013	New Haven County	0	0	$0	Winter
2/8/2013	New London County	0	0	$0	Winter
2/8/2013	New London County	0	0	$0	Winter
2/8/2013	Tolland County	0	0	$0	Winter
2/8/2013	Windham County	0	0	$0	Winter
2/9/2013	Litchfield County	0	0	$0	Winter
2/9/2013	Litchfield County	0	0	$0	Winter
2/27/2013	Fairfield County	0	0	$0	Flood
2/27/2013	Fairfield County	0	0	$10,719	Thunderstorm
2/27/2013	New Haven County	0	0	$0	Flood
3/7/2013	Fairfield County	0	0	$0	Winter
3/7/2013	Hartford County	0	0	$0	Winter
3/7/2013	Litchfield County	0	0	$0	Winter
3/7/2013	Litchfield County	0	0	$0	Winter
3/7/2013	Middlesex County	0	0	$0	Winter
3/7/2013	Middlesex County	0	0	$0	Winter
3/7/2013	New Haven County	0	0	$0	Winter
3/7/2013	New Haven County	0	0	$0	Winter
3/7/2013	New London County	0	0	$0	Winter
3/7/2013	Tolland County	0	0	$0	Winter
3/7/2013	Windham County	0	0	$0	Winter
3/8/2013	Fairfield County	0	0	$0	Winter
3/18/2013	Fairfield County	0	0	$0	Winter
3/18/2013	Hartford County	0	0	$0	Winter
3/18/2013	Litchfield County	0	0	$0	Winter
3/18/2013	Litchfield County	0	0	$0	Winter
3/18/2013	Tolland County	0	0	$0	Winter
3/18/2013	Windham County	0	0	$0	Winter
5/21/2013	Hartford County	0	0	$0	Thunderstorm
5/21/2013	Hartford County	0	0	$0	Thunderstorm
5/21/2013	Litchfield County	0	0	$0	Thunderstorm
5/21/2013	Litchfield County	0	0	$0	Thunderstorm
5/21/2013	Litchfield County	0	0	$0	Thunderstorm
5/21/2013	Litchfield County	0	0	$0	Thunderstorm
5/21/2013	Litchfield County	0	0	$0	Thunderstorm
5/21/2013	Litchfield County	0	0	$0	Thunderstorm
5/21/2013	Litchfield County	0	0	$0	Thunderstorm
5/21/2013	Windham County	0	0	$0	Thunderstorm
5/21/2013	Windham County	0	0	$0	Thunderstorm
5/23/2013	Fairfield County	0	0	$0	Flood

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
5/23/2013	Fairfield County	0	0	$536	Thunderstorm
5/23/2013	New Haven County	0	0	$5,360	Thunderstorm
5/29/2013	Hartford County	0	0	$10,719	Thunderstorm
5/29/2013	Litchfield County	0	0	$0	Thunderstorm
5/29/2013	Litchfield County	0	0	$0	Thunderstorm
5/29/2013	Litchfield County	0	0	$0	Thunderstorm
5/29/2013	Litchfield County	0	0	$0	Thunderstorm
6/2/2013	Litchfield County	0	0	$0	Thunderstorm
6/2/2013	Litchfield County	0	0	$0	Thunderstorm
6/7/2013	Fairfield County	0	0	$0	Flood
6/7/2013	New London County	0	0	$0	Flood
6/11/2013	Tolland County	0	0	$16,079	Thunderstorm
6/17/2013	Fairfield County	0	0	$4,288	Thunderstorm
6/17/2013	Fairfield County	0	0	$0	Thunderstorm
6/17/2013	Fairfield County	0	0	$2,144	Thunderstorm
6/17/2013	Hartford County	0	0	$5,360	Thunderstorm
6/17/2013	Hartford County	0	0	$10,719	Thunderstorm
6/17/2013	New Haven County	0	0	$2,680	Thunderstorm
6/17/2013	Tolland County	0	0	$10,719	Thunderstorm
6/17/2013	Windham County	0	0	$10,719	Thunderstorm
6/18/2013	Hartford County	0	0	$0	Thunderstorm
6/18/2013	Litchfield County	0	0	$0	Thunderstorm
6/18/2013	New London County	0	0	$1,072	Thunderstorm
6/18/2013	Windham County	0	0	$16,079	Flood
6/24/2013	New Haven County	0	0	$2,144	Thunderstorm
6/25/2013	Tolland County	0	0	$5,360	Thunderstorm
6/25/2013	Tolland County	0	0	$5,360	Thunderstorm
6/30/2013	Litchfield County	0	0	$0	Flood
7/1/2013	Fairfield County	0	0	$0	Tornado
7/1/2013	Fairfield County	0	0	$0	Flood
7/1/2013	Fairfield County	0	0	$0	Flood
7/1/2013	Fairfield County	0	0	$2,144	Thunderstorm
7/1/2013	Fairfield County	0	0	$2,144	Thunderstorm
7/1/2013	Hartford County	0	0	$5,359,551	Tornado
7/1/2013	Hartford County	0	0	$26,798	Tornado
7/7/2013	Hartford County	0	0	$32,157	Thunderstorm
7/9/2013	New Haven County	0	0	$0	Flood
7/10/2013	Hartford County	0	0	$3,216	Flood
7/10/2013	Tolland County	0	0	$53,596	Tornado
7/10/2013	Tolland County	0	0	$26,798	Thunderstorm
7/11/2013	Fairfield County	0	0	$4,288	Thunderstorm
7/11/2013	Fairfield County	0	0	$1,072	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
7/11/2013	Fairfield County	0	0	$2,144	Thunderstorm
7/11/2013	Fairfield County	0	0	$2,144	Thunderstorm
7/11/2013	Fairfield County	0	0	$2,144	Thunderstorm
7/11/2013	Fairfield County	0	0	$1,072	Thunderstorm
7/11/2013	Middlesex County	0	0	$3,216	Thunderstorm
7/20/2013	Litchfield County	0	0	$0	Thunderstorm
7/20/2013	Litchfield County	0	0	$0	Thunderstorm
7/20/2013	Middlesex County	0	0	$2,144	Thunderstorm
7/20/2013	Middlesex County	0	0	$2,144	Thunderstorm
7/20/2013	Middlesex County	0	0	$1,072	Thunderstorm
7/20/2013	Middlesex County	0	0	$1,072	Thunderstorm
7/20/2013	Middlesex County	0	0	$1,072	Thunderstorm
7/20/2013	Middlesex County	0	0	$2,144	Thunderstorm
7/20/2013	Middlesex County	0	0	$1,072	Thunderstorm
7/20/2013	Windham County	0	0	$10,719	Thunderstorm
7/20/2013	Windham County	0	0	$10,719	Thunderstorm
7/20/2013	Windham County	0	0	$10,719	Thunderstorm
7/20/2013	Windham County	0	0	$10,719	Thunderstorm
7/20/2013	Windham County	0	0	$0	Thunderstorm
7/23/2013	Litchfield County	0	0	$0	Thunderstorm
7/23/2013	New Haven County	0	0	$2,144	Thunderstorm
7/25/2013	New London County	0	0	$0	Flood
7/25/2013	New London County	0	0	$0	Flood
7/25/2013	New London County	0	0	$0	Flood
7/25/2013	New London County	0	0	$0	Flood
7/25/2013	New London County	0	0	$0	Flood
7/25/2013	New London County	0	0	$0	Flood
7/25/2013	New London County	0	0	$0	Flood
8/4/2013	Tolland County	0	0	$5,360	Thunderstorm
8/9/2013	Hartford County	0	0	$32,157	Flood
8/9/2013	Litchfield County	0	0	$0	Flood
8/9/2013	Litchfield County	0	0	$0	Flood
8/9/2013	Litchfield County	0	0	$0	Flood
8/9/2013	Litchfield County	0	0	$0	Flood
8/9/2013	Litchfield County	0	0	$0	Flood
8/9/2013	Litchfield County	0	0	$0	Flood
8/9/2013	Litchfield County	0	0	$0	Flood
8/28/2013	Fairfield County	0	0	$0	Flood
8/28/2013	Fairfield County	0	0	$1,072	Thunderstorm
8/28/2013	Litchfield County	0	0	$0	Flood

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
8/28/2013	Litchfield County	0	0	$0	Flood
8/28/2013	Middlesex County	0	0	$10,719	Thunderstorm
8/28/2013	New Haven County	0	0	$3,216	Thunderstorm
9/1/2013	Litchfield County	0	0	$0	Flood
9/2/2013	Fairfield County	0	0	$0	Flood
9/2/2013	Fairfield County	0	0	$0	Flood
9/2/2013	Hartford County	0	0	$5,360	Flood
9/2/2013	New London County	0	0	$0	Flood
9/2/2013	New London County	0	0	$0	Flood
9/3/2013	New London County	0	0	$0	Thunderstorm
9/3/2013	New London County	0	0	$0	Thunderstorm
9/3/2013	New London County	0	0	$0	Thunderstorm
9/3/2013	New London County	0	0	$0	Thunderstorm
9/3/2013	New London County	0	0	$0	Thunderstorm
9/12/2013	Middlesex County	0	0	$3,216	Thunderstorm
10/7/2013	Fairfield County	0	0	$13,935	Thunderstorm
10/7/2013	Fairfield County	0	0	$1,608	Thunderstorm
10/7/2013	Hartford County	0	0	$16,079	Thunderstorm
10/7/2013	Middlesex County	0	0	$3,216	Thunderstorm
10/7/2013	Middlesex County	0	0	$1,072	Thunderstorm
10/7/2013	Middlesex County	0	0	$1,072	Thunderstorm
10/7/2013	Tolland County	0	0	$5,360	Thunderstorm
11/1/2013	Hartford County	0	0	$26,798	Thunderstorm
11/1/2013	Litchfield County	0	0	$0	Thunderstorm
11/1/2013	Litchfield County	0	0	$0	Thunderstorm
11/1/2013	Litchfield County	0	0	$0	Thunderstorm
11/1/2013	Litchfield County	0	0	$0	Thunderstorm
11/1/2013	Tolland County	0	0	$5,360	Thunderstorm
11/24/2013	Fairfield County	0	0	$10,719	Thunderstorm
11/24/2013	New Haven County	0	0	$10,719	Thunderstorm
11/27/2013	Fairfield County	0	0	$0	Flood
11/27/2013	New Haven County	0	0	$32,157	Thunderstorm
11/27/2013	Tolland County	0	0	$16,079	Thunderstorm
12/14/2013	Fairfield County	0	0	$0	Winter
12/14/2013	Fairfield County	0	0	$0	Winter
12/14/2013	Hartford County	0	0	$0	Winter
12/14/2013	Litchfield County	0	0	$0	Winter
12/14/2013	Litchfield County	0	0	$0	Winter
12/14/2013	Middlesex County	0	0	$0	Winter
12/14/2013	Middlesex County	0	0	$0	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
12/14/2013	New Haven County	0	0	$0	Winter
12/14/2013	New Haven County	0	0	$0	Winter
12/14/2013	Tolland County	0	0	$0	Winter
12/17/2013	Litchfield County	0	0	$0	Winter
12/17/2013	Litchfield County	0	0	$0	Winter
1/1/2014	Litchfield County	0	0	$0	Winter
1/1/2014	Litchfield County	0	0	$0	Winter
1/2/2014	Fairfield County	0	0	$0	Winter
1/2/2014	Fairfield County	0	0	$0	Winter
1/2/2014	Hartford County	0	0	$0	Winter
1/2/2014	New Haven County	0	0	$0	Winter
1/2/2014	New Haven County	0	0	$0	Winter
1/2/2014	New London County	0	0	$0	Winter
1/2/2014	Tolland County	0	0	$0	Winter
1/2/2014	Windham County	0	0	$0	Winter
1/3/2014	Litchfield County	0	0	$0	Winter
1/3/2014	Litchfield County	0	0	$0	Winter
1/7/2014	Litchfield County	0	0	$0	Winter
1/7/2014	Litchfield County	0	0	$0	Winter
1/18/2014	Litchfield County	0	0	$0	Winter
1/21/2014	Fairfield County	0	0	$0	Winter
1/21/2014	Fairfield County	0	0	$0	Winter
1/21/2014	Litchfield County	0	0	$0	Winter
1/21/2014	Litchfield County	0	0	$0	Winter
1/21/2014	Middlesex County	0	0	$0	Winter
1/21/2014	Middlesex County	0	0	$0	Winter
1/21/2014	New Haven County	0	0	$0	Winter
1/21/2014	New Haven County	0	0	$0	Winter
1/21/2014	New London County	0	0	$0	Winter
1/21/2014	New London County	0	0	$0	Winter
1/21/2014	Windham County	0	0	$0	Winter
2/3/2014	Fairfield County	0	0	$0	Winter
2/3/2014	Fairfield County	0	0	$0	Winter
2/3/2014	Middlesex County	0	0	$0	Winter
2/3/2014	New Haven County	0	0	$0	Winter
2/3/2014	New Haven County	0	0	$0	Winter
2/5/2014	Fairfield County	0	0	$0	Winter
2/5/2014	Fairfield County	0	0	$0	Winter
2/5/2014	Hartford County	0	0	$0	Winter
2/5/2014	Litchfield County	0	0	$0	Winter
2/5/2014	Litchfield County	0	0	$0	Winter
2/5/2014	Middlesex County	0	0	$0	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
2/5/2014	New Haven County	0	0	$0	Winter
2/5/2014	New Haven County	0	0	$0	Winter
2/5/2014	Tolland County	0	0	$0	Winter
2/5/2014	Windham County	0	0	$0	Winter
2/13/2014	Fairfield County	0	0	$0	Winter
2/13/2014	Fairfield County	0	0	$0	Winter
2/13/2014	Hartford County	0	0	$0	Winter
2/13/2014	Litchfield County	0	0	$0	Winter
2/13/2014	Litchfield County	0	0	$0	Winter
2/13/2014	Middlesex County	0	0	$0	Winter
2/13/2014	Middlesex County	0	0	$0	Winter
2/13/2014	New Haven County	0	0	$0	Winter
2/13/2014	New Haven County	0	0	$0	Winter
2/13/2014	New London County	0	0	$0	Winter
2/13/2014	New London County	0	0	$0	Winter
2/13/2014	Tolland County	0	0	$0	Winter
2/13/2014	Windham County	0	0	$0	Winter
2/15/2014	New London County	0	0	$0	Winter
3/12/2014	Litchfield County	0	0	$0	Winter
3/12/2014	Litchfield County	0	0	$0	Winter
3/26/2014	New Haven County	0	0	$31,644	Thunderstorm
3/30/2014	New London County	0	0	$0	Flood
3/30/2014	Windham County	0	0	$0	Flood
3/31/2014	New Haven County	0	0	$0	Winter
3/31/2014	New Haven County	0	0	$0	Winter
4/15/2014	New Haven County	0	0	$5,274	Thunderstorm
5/1/2014	New Haven County	0	0	$0	Flood
5/10/2014	Middlesex County	0	0	$0	Thunderstorm
5/22/2014	Fairfield County	0	0	$2,110	Thunderstorm
5/25/2014	New London County	0	0	$0	Thunderstorm
5/25/2014	New London County	0	1	$0	Thunderstorm
5/25/2014	New London County	0	0	$0	Thunderstorm
5/25/2014	New London County	0	0	$0	Thunderstorm
5/25/2014	Windham County	0	0	$0	Thunderstorm
5/25/2014	Windham County	0	0	$0	Thunderstorm
5/27/2014	Litchfield County	0	0	$0	Thunderstorm
5/27/2014	Litchfield County	0	0	$0	Thunderstorm
5/27/2014	New Haven County	0	0	$8,438	Thunderstorm
5/27/2014	New Haven County	0	0	$0	Flood
5/27/2014	New Haven County	0	0	$0	Flood

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
6/13/2014	New Haven County	0	0	$0	Flood
6/13/2014	New Haven County	0	0	$0	Flood
6/18/2014	Litchfield County	0	0	$0	Thunderstorm
7/2/2014	Hartford County	0	0	$3,164	Thunderstorm
7/2/2014	Litchfield County	0	0	$0	Thunderstorm
7/2/2014	Litchfield County	0	0	$0	Thunderstorm
7/3/2014	Fairfield County	0	0	$0	Thunderstorm
7/3/2014	Hartford County	0	0	$12,658	Thunderstorm
7/3/2014	Litchfield County	0	0	$0	Thunderstorm
7/3/2014	Litchfield County	0	0	$0	Thunderstorm
7/3/2014	Litchfield County	0	0	$0	Thunderstorm
7/3/2014	New Haven County	0	0	$3,164	Thunderstorm
7/3/2014	Tolland County	0	0	$10,548	Thunderstorm
7/3/2014	Windham County	0	0	$15,822	Thunderstorm
7/4/2014	New London County	0	0	$0	Flood
7/4/2014	New London County	0	0	$0	Flood
7/7/2014	Fairfield County	0	0	$4,219	Thunderstorm
7/7/2014	Litchfield County	0	0	$0	Thunderstorm
7/7/2014	New Haven County	0	0	$4,219	Thunderstorm
7/7/2014	New Haven County	0	0	$2,110	Thunderstorm
7/7/2014	New Haven County	0	0	$3,164	Thunderstorm
7/7/2014	New Haven County	0	0	$2,110	Thunderstorm
7/9/2014	Fairfield County	0	0	$2,110	Thunderstorm
7/9/2014	Fairfield County	0	0	$2,110	Thunderstorm
7/9/2014	Hartford County	0	0	$10,548	Thunderstorm
7/9/2014	Hartford County	0	0	$3,164	Thunderstorm
7/9/2014	Litchfield County	0	0	$0	Thunderstorm
7/9/2014	Litchfield County	0	0	$0	Thunderstorm
7/9/2014	Litchfield County	0	0	$0	Thunderstorm
7/9/2014	Litchfield County	0	0	$0	Thunderstorm
7/9/2014	New Haven County	0	0	$2,110	Thunderstorm
7/9/2014	New Haven County	0	0	$2,110	Thunderstorm
7/13/2014	Litchfield County	0	0	$0	Thunderstorm
7/14/2014	Fairfield County	0	0	$0	Flood
7/14/2014	Fairfield County	0	0	$0	Flood
7/14/2014	Fairfield County	0	0	$0	Flood
7/15/2014	Middlesex County	0	0	$1,055	Thunderstorm
7/23/2014	Fairfield County	0	0	$5,274	Thunderstorm
7/23/2014	Fairfield County	0	0	$2,110	Thunderstorm
7/23/2014	Litchfield County	0	0	$0	Thunderstorm
7/23/2014	Litchfield County	0	0	$0	Thunderstorm
7/27/2014	Hartford County	0	0	$52,740	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
7/27/2014	Hartford County	0	0	$5,274	Thunderstorm
7/27/2014	Hartford County	0	0	$10,548	Thunderstorm
7/27/2014	Hartford County	0	0	$0	Thunderstorm
7/27/2014	New Haven County	0	0	$26,370	Tornado
7/27/2014	Tolland County	0	0	$10,548	Thunderstorm
7/27/2014	Tolland County	0	0	$5,274	Thunderstorm
7/27/2014	Tolland County	0	0	$52,740	Thunderstorm
7/27/2014	Tolland County	0	0	$5,274	Thunderstorm
7/27/2014	Tolland County	0	0	$10,548	Thunderstorm
7/27/2014	Tolland County	0	0	$10,548	Thunderstorm
7/27/2014	Tolland County	0	0	$0	Thunderstorm
7/27/2014	Tolland County	0	0	$0	Thunderstorm
7/28/2014	Hartford County	0	0	$21,096	Thunderstorm
7/28/2014	Tolland County	0	0	$10,548	Thunderstorm
8/6/2014	Fairfield County	0	0	$2,110	Thunderstorm
8/7/2014	Tolland County	0	0	$0	Thunderstorm
8/13/2014	New Haven County	0	0	$0	Flood
8/13/2014	New Haven County	0	0	$0	Flood
8/13/2014	Windham County	0	0	$5,274	Thunderstorm
9/2/2014	Tolland County	0	0	$5,274	Thunderstorm
9/6/2014	Fairfield County	0	0	$0	Thunderstorm
9/6/2014	Fairfield County	0	0	$0	Thunderstorm
9/6/2014	Fairfield County	0	0	$0	Thunderstorm
9/6/2014	Fairfield County	0	0	$0	Flood
9/6/2014	Fairfield County	0	0	$0	Thunderstorm
9/6/2014	Fairfield County	0	0	$0	Thunderstorm
9/6/2014	Litchfield County	0	0	$0	Thunderstorm
9/6/2014	Litchfield County	0	0	$0	Thunderstorm
9/6/2014	Litchfield County	0	0	$0	Thunderstorm
9/6/2014	Litchfield County	0	0	$0	Thunderstorm
9/6/2014	Litchfield County	0	0	$0	Thunderstorm
9/6/2014	Litchfield County	0	0	$0	Thunderstorm
10/8/2014	Hartford County	0	0	$10,548	Thunderstorm
10/22/2014	Fairfield County	0	0	$21,096	Thunderstorm
10/22/2014	New Haven County	0	0	$21,096	Thunderstorm
11/2/2014	Fairfield County	0	0	$21,096	Thunderstorm
11/2/2014	Fairfield County	0	0	$21,096	Thunderstorm
11/2/2014	Middlesex County	0	0	$21,096	Thunderstorm
11/2/2014	New London County	0	0	$21,096	Thunderstorm
11/26/2014	Fairfield County	0	0	$0	Winter
11/26/2014	Hartford County	0	0	$0	Winter
11/26/2014	Litchfield County	0	0	$0	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
11/26/2014	Litchfield County	0	0	$0	Winter
11/26/2014	New Haven County	0	0	$0	Winter
12/9/2014	Fairfield County	0	0	$10,548	Thunderstorm
12/9/2014	Fairfield County	0	0	$0	Flood
12/9/2014	Hartford County	0	0	$0	Winter
12/9/2014	Litchfield County	0	0	$0	Winter
12/9/2014	Litchfield County	0	0	$0	Winter
12/9/2014	New Haven County	0	0	$10,548	Thunderstorm
12/9/2014	New London County	0	0	$10,548	Thunderstorm
1/3/2015	Litchfield County	0	0	$0	Winter
1/3/2015	Litchfield County	0	0	$0	Winter
1/7/2015	Litchfield County	0	0	$0	Winter
1/7/2015	Litchfield County	0	0	$0	Winter
1/18/2015	Fairfield County	0	0	$0	Winter
1/18/2015	Fairfield County	0	0	$0	Winter
1/18/2015	Hartford County	0	0	$0	Winter
1/18/2015	Litchfield County	0	0	$0	Winter
1/18/2015	Litchfield County	0	0	$0	Winter
1/18/2015	Middlesex County	0	0	$0	Winter
1/18/2015	Middlesex County	0	0	$0	Winter
1/18/2015	New Haven County	1	0	$0	Winter
1/18/2015	New Haven County	0	0	$0	Winter
1/18/2015	New London County	0	0	$0	Winter
1/18/2015	New London County	0	0	$0	Winter
1/24/2015	Fairfield County	0	0	$0	Winter
1/24/2015	Fairfield County	0	0	$0	Winter
1/24/2015	Litchfield County	0	0	$0	Winter
1/24/2015	Litchfield County	0	0	$0	Winter
1/24/2015	Middlesex County	0	0	$0	Winter
1/24/2015	New Haven County	0	0	$0	Winter
1/24/2015	Tolland County	0	0	$0	Winter
1/26/2015	Fairfield County	0	0	$0	Winter
1/26/2015	Fairfield County	0	0	$0	Winter
1/26/2015	Hartford County	0	0	$0	Winter
1/26/2015	Litchfield County	0	0	$0	Winter
1/26/2015	Litchfield County	0	0	$0	Winter
1/26/2015	Middlesex County	0	0	$0	Winter
1/26/2015	Middlesex County	0	0	$0	Winter
1/26/2015	New Haven County	0	0	$0	Winter
1/26/2015	New Haven County	0	0	$0	Winter
1/26/2015	New London County	0	0	$0	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
1/26/2015	New London County	0	0	$0	Winter
1/26/2015	Tolland County	0	0	$0	Winter
1/26/2015	Windham County	0	0	$0	Winter
1/27/2015	Middlesex County	0	0	$0	Winter
1/27/2015	Middlesex County	0	0	$0	Winter
1/27/2015	New London County	0	0	$0	Winter
1/27/2015	New London County	0	0	$0	Winter
1/30/2015	Litchfield County	0	0	$0	Winter
2/1/2015	Fairfield County	0	0	$0	Winter
2/1/2015	Fairfield County	0	0	$0	Winter
2/1/2015	Litchfield County	0	0	$0	Winter
2/1/2015	Litchfield County	0	0	$0	Winter
2/1/2015	Middlesex County	0	0	$0	Winter
2/1/2015	Middlesex County	0	0	$0	Winter
2/1/2015	New Haven County	0	0	$0	Winter
2/1/2015	New Haven County	0	0	$0	Winter
2/2/2015	Hartford County	0	0	$0	Winter
2/2/2015	Litchfield County	0	0	$0	Winter
2/2/2015	New London County	0	0	$0	Winter
2/2/2015	New London County	0	0	$0	Winter
2/2/2015	Tolland County	0	0	$0	Winter
2/2/2015	Windham County	0	0	$0	Winter
2/5/2015	Tolland County	0	0	$0	Winter
2/7/2015	Litchfield County	0	0	$0	Winter
2/7/2015	Litchfield County	0	0	$0	Winter
2/8/2015	Fairfield County	0	0	$0	Winter
2/8/2015	Hartford County	0	0	$0	Winter
2/8/2015	New Haven County	0	0	$0	Winter
2/8/2015	New London County	0	0	$0	Winter
2/8/2015	Tolland County	0	0	$0	Winter
2/8/2015	Windham County	0	0	$0	Winter
2/13/2015	Litchfield County	0	0	$0	Winter
2/13/2015	Litchfield County	0	0	$0	Winter
2/14/2015	Hartford County	0	0	$0	Winter
2/14/2015	Tolland County	0	0	$0	Winter
2/14/2015	Windham County	0	0	$0	Winter
2/15/2015	Fairfield County	0	0	$10,535	Thunderstorm
2/15/2015	Litchfield County	0	0	$0	Winter
2/15/2015	Litchfield County	0	0	$0	Winter
2/15/2015	New Haven County	0	0	$0	Winter
2/15/2015	New Haven County	0	0	$10,535	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
2/15/2015	New London County	0	0	$10,535	Thunderstorm
2/19/2015	Litchfield County	0	0	$0	Winter
2/19/2015	Litchfield County	0	0	$0	Winter
2/21/2015	Fairfield County	0	0	$0	Winter
2/21/2015	Fairfield County	0	0	$0	Winter
2/21/2015	Hartford County	0	0	$0	Winter
2/21/2015	Litchfield County	0	0	$0	Winter
2/21/2015	Litchfield County	0	0	$0	Winter
2/21/2015	New Haven County	0	0	$0	Winter
2/21/2015	New Haven County	0	0	$0	Winter
2/21/2015	Tolland County	0	0	$0	Winter
2/21/2015	Windham County	0	0	$0	Winter
2/23/2015	Litchfield County	0	0	$0	Winter
3/1/2015	Fairfield County	0	0	$0	Winter
3/1/2015	Fairfield County	0	0	$0	Winter
3/1/2015	Hartford County	0	0	$0	Winter
3/1/2015	Middlesex County	0	0	$0	Winter
3/1/2015	Middlesex County	0	0	$0	Winter
3/1/2015	New Haven County	0	0	$0	Winter
3/1/2015	New Haven County	0	0	$0	Winter
3/1/2015	New London County	0	0	$0	Winter
3/1/2015	New London County	0	0	$0	Winter
3/1/2015	Tolland County	0	0	$0	Winter
3/1/2015	Windham County	0	0	$0	Winter
3/5/2015	Fairfield County	0	0	$0	Winter
3/5/2015	Middlesex County	0	0	$0	Winter
3/5/2015	New Haven County	0	0	$0	Winter
3/5/2015	New London County	0	0	$0	Winter
3/5/2015	New London County	0	0	$0	Winter
3/17/2015	Hartford County	0	0	$5,268	Thunderstorm
3/17/2015	Litchfield County	0	1	$10,535	Thunderstorm
3/17/2015	Litchfield County	0	0	$10,535	Thunderstorm
3/17/2015	New London County	0	0	$10,535	Thunderstorm
3/17/2015	Windham County	0	0	$10,535	Thunderstorm
4/4/2015	Fairfield County	0	0	$10,535	Thunderstorm
4/4/2015	Hartford County	0	0	$26,339	Thunderstorm
4/4/2015	New London County	0	0	$31,606	Thunderstorm
4/21/2015	Litchfield County	0	0	$1,053,549	Thunderstorm
5/19/2015	Litchfield County	0	0	$5,268	Thunderstorm
5/19/2015	Litchfield County	0	0	$105,355	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
5/19/2015	Litchfield County	0	0	$0	Thunderstorm
5/19/2015	Litchfield County	0	0	$0	Thunderstorm
5/19/2015	Litchfield County	0	0	$0	Thunderstorm
5/19/2015	Litchfield County	0	0	$0	Thunderstorm
5/19/2015	Middlesex County	0	0	$0	Thunderstorm
5/27/2015	Litchfield County	0	0	$0	Thunderstorm
5/28/2015	Fairfield County	0	0	$1,054	Thunderstorm
5/28/2015	Fairfield County	0	0	$5,268	Thunderstorm
5/28/2015	Fairfield County	0	0	$0	Thunderstorm
5/31/2015	Hartford County	0	0	$0	Flood
5/31/2015	Hartford County	0	0	$0	Flood
6/9/2015	Litchfield County	0	0	$0	Thunderstorm
6/23/2015	Fairfield County	0	0	$26,339	Thunderstorm
6/23/2015	Fairfield County	0	0	$10,535	Thunderstorm
6/23/2015	Fairfield County	0	0	$10,535	Thunderstorm
6/23/2015	Fairfield County	0	0	$13,169	Thunderstorm
6/23/2015	Hartford County	0	0	$42,142	Thunderstorm
6/23/2015	Hartford County	0	0	$15,803	Thunderstorm
6/23/2015	Litchfield County	0	0	$0	Tornado
6/23/2015	Litchfield County	0	0	$0	Thunderstorm
6/23/2015	Litchfield County	0	0	$0	Thunderstorm
6/23/2015	Middlesex County	0	0	$15,803	Thunderstorm
6/23/2015	New Haven County	0	0	$7,902	Thunderstorm
6/23/2015	New Haven County	0	0	$5,268	Thunderstorm
6/23/2015	New Haven County	0	0	$2,107	Thunderstorm
6/23/2015	New Haven County	0	0	$15,803	Thunderstorm
6/23/2015	New Haven County	0	0	$7,902	Thunderstorm
6/23/2015	New London County	0	0	$7,902	Thunderstorm
6/23/2015	New London County	0	0	$7,902	Thunderstorm
6/23/2015	New London County	0	0	$1,054	Thunderstorm
6/23/2015	New London County	0	0	$3,161	Thunderstorm
6/23/2015	New London County	0	0	$5,268	Thunderstorm
6/23/2015	New London County	0	0	$1,580	Thunderstorm
6/23/2015	New London County	0	0	$3,161	Thunderstorm
7/1/2015	New London County	0	0	$1,580	Thunderstorm
7/20/2015	New London County	0	0	$7,902	Thunderstorm
7/20/2015	New London County	0	0	$3,161	Thunderstorm
7/20/2015	New London County	0	0	$1,580	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
7/20/2015	New London County	0	0	$3,161	Thunderstorm
7/20/2015	New London County	0	0	$3,161	Thunderstorm
7/21/2015	Litchfield County	0	2	$0	Thunderstorm
7/30/2015	Hartford County	0	0	$0	Flood
8/4/2015	Fairfield County	0	0	$15,803	Thunderstorm
8/4/2015	Fairfield County	0	0	$4,214	Thunderstorm
8/4/2015	New London County	0	0	$0	Thunderstorm
8/4/2015	New London County	1	0	$10,535	Thunderstorm
8/25/2015	Hartford County	0	0	$0	Flood
8/25/2015	Hartford County	0	0	$5,268	Thunderstorm
9/10/2015	New London County	0	0	$0	Flood
9/10/2015	New London County	0	0	$0	Flood
9/10/2015	New London County	0	0	$0	Flood
9/13/2015	Hartford County	0	0	$3,161	Thunderstorm
9/13/2015	New Haven County	0	0	$527	Thunderstorm
12/28/2015	Litchfield County	0	0	$0	Winter
12/28/2015	Litchfield County	0	0	$0	Winter
12/29/2015	Hartford County	0	0	$0	Winter
12/29/2015	Tolland County	0	0	$0	Winter
1/13/2016	Windham County	0	0	$5,202	Thunderstorm
1/23/2016	Fairfield County	0	0	$0	Winter
1/23/2016	Fairfield County	0	0	$0	Flood
1/23/2016	Fairfield County	0	0	$0	Winter
1/23/2016	Fairfield County	0	0	$0	Winter
1/23/2016	Hartford County	0	0	$0	Winter
1/23/2016	Middlesex County	0	0	$0	Winter
1/23/2016	Middlesex County	0	0	$0	Winter
1/23/2016	New Haven County	0	0	$0	Winter
1/23/2016	New Haven County	0	0	$0	Winter
1/23/2016	New London County	0	0	$0	Winter
1/23/2016	New London County	0	0	$0	Winter
1/23/2016	Tolland County	0	0	$0	Winter
1/23/2016	Windham County	0	0	$0	Winter
2/5/2016	Fairfield County	0	0	$0	Winter
2/5/2016	Fairfield County	0	0	$0	Winter
2/5/2016	Hartford County	0	0	$0	Winter
2/5/2016	Litchfield County	0	0	$0	Winter
2/5/2016	Middlesex County	0	0	$0	Winter
2/5/2016	Middlesex County	0	0	$0	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
2/5/2016	New Haven County	0	0	$0	Winter
2/5/2016	New Haven County	0	0	$0	Winter
2/5/2016	New London County	0	0	$0	Winter
2/5/2016	New London County	0	0	$0	Winter
2/5/2016	Tolland County	0	0	$0	Winter
2/5/2016	Windham County	0	0	$52,021	Winter
2/8/2016	Fairfield County	0	0	$0	Winter
2/8/2016	Hartford County	0	0	$0	Winter
2/8/2016	Litchfield County	0	0	$0	Winter
2/8/2016	Litchfield County	0	0	$0	Winter
2/8/2016	New Haven County	0	0	$0	Winter
2/8/2016	New London County	0	0	$0	Winter
2/8/2016	Tolland County	0	0	$0	Winter
2/8/2016	Windham County	0	0	$0	Winter
2/13/2016	Litchfield County	0	0	$0	Winter
2/13/2016	Litchfield County	0	0	$0	Winter
2/14/2016	Hartford County	0	0	$0	Winter
2/16/2016	Fairfield County	0	0	$52,021	Thunderstorm
2/16/2016	New London County	0	0	$52,021	Thunderstorm
2/16/2016	New London County	0	0	$104,042	Thunderstorm
2/24/2016	Fairfield County	0	0	$104,042	Thunderstorm
2/24/2016	Fairfield County	0	0	$104,042	Thunderstorm
2/24/2016	Hartford County	0	0	$5,202	Thunderstorm
2/24/2016	Litchfield County	0	0	$0	Thunderstorm
2/24/2016	Litchfield County	0	0	$0	Thunderstorm
2/25/2016	Fairfield County	0	0	$10,404	Thunderstorm
2/25/2016	Fairfield County	0	0	$0	Thunderstorm
2/25/2016	Hartford County	0	0	$2,081	Thunderstorm
2/25/2016	Hartford County	0	0	$0	Thunderstorm
2/25/2016	Hartford County	0	0	$31,213	Thunderstorm
2/25/2016	Hartford County	0	0	$5,202	Thunderstorm
2/25/2016	Hartford County	0	0	$5,202	Thunderstorm
2/25/2016	Hartford County	0	0	$10,404	Thunderstorm
2/25/2016	Hartford County	0	0	$5,202	Thunderstorm
2/25/2016	Hartford County	0	0	$10,404	Thunderstorm
2/25/2016	Hartford County	0	0	$5,202	Thunderstorm
2/25/2016	Middlesex County	0	0	$4,162	Thunderstorm
2/25/2016	Middlesex County	0	0	$7,803	Thunderstorm
2/25/2016	New Haven County	0	0	$10,404	Thunderstorm
2/25/2016	New London County	0	0	$5,202	Thunderstorm
2/25/2016	Tolland County	0	0	$5,202	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
2/25/2016	Tolland County	0	0	$10,404	Thunderstorm
2/25/2016	Tolland County	0	0	$5,202	Thunderstorm
2/25/2016	Tolland County	0	0	$5,202	Thunderstorm
2/25/2016	Tolland County	0	0	$10,404	Thunderstorm
2/25/2016	Tolland County	0	0	$5,202	Thunderstorm
2/25/2016	Tolland County	0	0	$10,404	Thunderstorm
2/25/2016	Tolland County	0	0	$5,202	Thunderstorm
2/25/2016	Windham County	0	0	$10,404	Thunderstorm
2/25/2016	Windham County	0	0	$0	Thunderstorm
2/25/2016	Windham County	0	0	$15,606	Thunderstorm
3/17/2016	Hartford County	0	0	$5,202	Thunderstorm
3/17/2016	Hartford County	0	0	$520	Thunderstorm
3/17/2016	Tolland County	0	0	$15,606	Thunderstorm
3/21/2016	Hartford County	0	0	$0	Winter
3/21/2016	Tolland County	0	0	$0	Winter
3/21/2016	Windham County	0	0	$0	Winter
3/28/2016	Fairfield County	0	0	$41,617	Thunderstorm
4/3/2016	Hartford County	0	0	$5,202	Thunderstorm
4/3/2016	Hartford County	0	0	$0	Winter
4/3/2016	Tolland County	0	0	$0	Winter
4/3/2016	Windham County	0	0	$0	Winter
4/4/2016	Hartford County	0	0	$0	Winter
4/4/2016	Tolland County	0	0	$0	Winter
4/4/2016	Windham County	0	0	$0	Winter
6/5/2016	Fairfield County	0	0	$5,202	Thunderstorm
7/1/2016	Litchfield County	0	0	$0	Thunderstorm
7/7/2016	New Haven County	0	2	$0	Thunderstorm
7/18/2016	Fairfield County	0	0	$2,081	Thunderstorm
7/18/2016	Hartford County	0	0	$41,617	Thunderstorm
7/18/2016	Hartford County	0	0	$5,202	Thunderstorm
7/18/2016	Hartford County	0	0	$15,606	Thunderstorm
7/18/2016	Litchfield County	0	0	$0	Thunderstorm
7/18/2016	New Haven County	0	0	$2,081	Thunderstorm
7/18/2016	New Haven County	0	0	$4,162	Thunderstorm
7/22/2016	Hartford County	0	0	$31,213	Thunderstorm
7/22/2016	Hartford County	0	0	$31,213	Thunderstorm
7/22/2016	Hartford County	0	0	$78,032	Thunderstorm
7/22/2016	Tolland County	0	0	$15,606	Thunderstorm
7/22/2016	Tolland County	0	0	$52,021	Thunderstorm
7/22/2016	Tolland County	0	0	$31,213	Thunderstorm
7/22/2016	Windham County	0	0	$3,121	Thunderstorm
7/22/2016	Windham County	0	0	$15,606	Thunderstorm
7/22/2016	Windham County	0	0	$15,606	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
7/25/2016	Fairfield County	0	0	$3,121	Thunderstorm
7/25/2016	Fairfield County	0	0	$780	Thunderstorm
7/25/2016	Fairfield County	0	0	$5,202	Thunderstorm
7/25/2016	New Haven County	0	0	$2,081	Thunderstorm
7/25/2016	New Haven County	0	0	$1,821	Thunderstorm
8/9/2016	Windham County	0	0	$0	Drought
8/10/2016	New Haven County	0	0	$15,606	Tornado
8/11/2016	Fairfield County	0	0	$2,601	Thunderstorm
8/11/2016	Fairfield County	0	0	$1,040	Thunderstorm
8/11/2016	Hartford County	0	0	$1,040	Thunderstorm
8/11/2016	Hartford County	0	0	$10,404	Thunderstorm
8/11/2016	Hartford County	0	0	$15,606	Thunderstorm
8/11/2016	Hartford County	0	0	$15,606	Thunderstorm
8/11/2016	Hartford County	0	0	$0	Flood
8/11/2016	Hartford County	0	0	$0	Flood
8/11/2016	Hartford County	0	0	$5,202	Thunderstorm
8/11/2016	Hartford County	0	0	$15,606	Thunderstorm
8/11/2016	Hartford County	0	0	$15,606	Thunderstorm
8/11/2016	Hartford County	0	0	$31,213	Thunderstorm
8/11/2016	Hartford County	0	0	$20,808	Thunderstorm
8/11/2016	Middlesex County	0	0	$4,162	Thunderstorm
8/11/2016	Middlesex County	0	0	$10,404	Thunderstorm
8/11/2016	Middlesex County	0	0	$10,404	Thunderstorm
8/11/2016	Middlesex County	0	0	$0	Flood
8/11/2016	Middlesex County	0	0	$0	Flood
8/11/2016	Tolland County	0	0	$5,202	Thunderstorm
8/11/2016	Tolland County	0	1	$0	Thunderstorm
8/11/2016	Tolland County	0	0	$5,202	Thunderstorm
8/12/2016	Windham County	0	0	$15,606	Thunderstorm
8/12/2016	Windham County	0	0	$31,213	Thunderstorm
8/12/2016	Windham County	0	0	$41,617	Thunderstorm
8/12/2016	Windham County	0	0	$15,606	Thunderstorm
8/12/2016	Windham County	0	0	$5,202	Thunderstorm
8/12/2016	Windham County	0	0	$10,404	Thunderstorm
8/12/2016	Windham County	0	0	$15,606	Thunderstorm
8/12/2016	Windham County	0	0	$104,042	Flood
8/13/2016	Fairfield County	0	0	$780	Thunderstorm
8/13/2016	Fairfield County	0	0	$5,202	Thunderstorm
8/13/2016	Fairfield County	0	0	$2,081	Thunderstorm
8/13/2016	Fairfield County	0	0	$2,601	Thunderstorm
8/13/2016	Fairfield County	0	0	$7,803	Thunderstorm
8/13/2016	Fairfield County	0	0	$4,162	Thunderstorm
8/13/2016	Hartford County	0	0	$1,040	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
8/13/2016	Hartford County	0	0	$5,202	Thunderstorm
8/13/2016	Hartford County	0	0	$5,202	Thunderstorm
8/13/2016	Litchfield County	0	0	$0	Thunderstorm
8/13/2016	Litchfield County	0	0	$0	Thunderstorm
8/13/2016	Litchfield County	0	0	$0	Thunderstorm
8/13/2016	Middlesex County	0	0	$1,040	Thunderstorm
8/13/2016	Middlesex County	0	0	$1,040	Thunderstorm
8/13/2016	Tolland County	0	0	$41,617	Thunderstorm
8/13/2016	Windham County	0	0	$15,606	Thunderstorm
8/13/2016	Windham County	0	0	$15,606	Thunderstorm
8/13/2016	Windham County	0	0	$15,606	Thunderstorm
8/14/2016	New London County	0	0	$3,121	Thunderstorm
8/14/2016	New London County	0	1	$0	Thunderstorm
9/5/2016	Windham County	0	0	$10,404	Thunderstorm
9/11/2016	Hartford County	0	0	$5,202	Thunderstorm
9/11/2016	Litchfield County	0	0	$0	Thunderstorm
9/11/2016	Litchfield County	0	0	$0	Thunderstorm
9/13/2016	Hartford County	0	0	$0	Drought
9/13/2016	Tolland County	0	0	$0	Drought
9/14/2016	Fairfield County	0	0	$1,040	Thunderstorm
9/19/2016	New London County	0	0	$0	Flood
10/1/2016	Hartford County	0	0	$0	Drought
10/1/2016	Tolland County	0	0	$0	Drought
10/1/2016	Windham County	0	0	$0	Drought
10/21/2016	Windham County	0	0	$5,202	Flood
10/22/2016	Litchfield County	0	0	$1,040	Thunderstorm
10/22/2016	Litchfield County	0	0	$1,040	Thunderstorm
10/23/2016	Fairfield County	0	0	$31,213	Thunderstorm
10/27/2016	Litchfield County	0	0	$0	Winter
10/27/2016	Litchfield County	0	0	$0	Winter
11/1/2016	Hartford County	0	0	$0	Drought
11/1/2016	Tolland County	0	0	$0	Drought
11/1/2016	Windham County	0	0	$0	Drought
11/11/2016	Hartford County	0	0	$312	Thunderstorm
11/20/2016	Litchfield County	0	0	$0	Winter
11/20/2016	Litchfield County	0	0	$0	Winter
12/1/2016	Hartford County	0	0	$0	Drought
12/1/2016	Tolland County	0	0	$0	Drought
12/1/2016	Windham County	0	0	$0	Drought
12/11/2016	Litchfield County	0	0	$0	Winter
12/15/2016	Fairfield County	0	0	$52,021	Thunderstorm
12/15/2016	Hartford County	0	0	$2,081	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
12/15/2016	Litchfield County	0	0	$0	Winter
12/15/2016	New London County	0	0	$52,021	Thunderstorm
12/17/2016	Fairfield County	0	0	$0	Winter
12/17/2016	Fairfield County	0	0	$0	Winter
12/17/2016	Hartford County	0	0	$0	Winter
12/17/2016	Litchfield County	0	0	$0	Winter
12/17/2016	Litchfield County	0	0	$0	Winter
12/17/2016	Middlesex County	0	0	$0	Winter
12/17/2016	New Haven County	0	0	$0	Winter
12/17/2016	New Haven County	0	0	$0	Winter
12/17/2016	New London County	0	0	$0	Winter
12/17/2016	New London County	0	0	$0	Winter
12/17/2016	Tolland County	0	0	$0	Winter
12/17/2016	Windham County	0	0	$0	Winter
1/1/2017	Hartford County	0	0	$0	Drought
1/1/2017	Tolland County	0	0	$0	Drought
1/1/2017	Windham County	0	0	$0	Drought
1/7/2017	Fairfield County	0	0	$0	Winter
1/7/2017	Fairfield County	0	0	$0	Winter
1/7/2017	Litchfield County	0	0	$0	Winter
1/7/2017	Middlesex County	0	0	$0	Winter
1/7/2017	Middlesex County	0	0	$0	Winter
1/7/2017	New Haven County	0	0	$0	Winter
1/7/2017	New Haven County	0	0	$0	Winter
1/7/2017	New London County	0	0	$0	Winter
1/7/2017	New London County	0	0	$0	Winter
1/7/2017	Windham County	0	0	$0	Winter
1/23/2017	Fairfield County	0	0	$10,158	Thunderstorm
1/23/2017	Litchfield County	0	0	$0	Winter
1/23/2017	Litchfield County	0	0	$0	Winter
1/23/2017	New London County	0	0	$101,580	Thunderstorm
1/24/2017	New London County	0	0	$50,790	Thunderstorm
2/1/2017	Hartford County	0	0	$0	Drought
2/1/2017	Tolland County	0	0	$0	Drought
2/1/2017	Windham County	0	0	$0	Drought
2/9/2017	Fairfield County	0	0	$0	Winter
2/9/2017	Fairfield County	0	0	$0	Winter
2/9/2017	Fairfield County	0	0	$0	Winter
2/9/2017	Hartford County	0	0	$0	Winter
2/9/2017	Litchfield County	0	0	$0	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
2/9/2017	Litchfield County	0	0	$0	Winter
2/9/2017	Middlesex County	0	0	$0	Winter
2/9/2017	Middlesex County	0	0	$0	Winter
2/9/2017	Middlesex County	0	0	$0	Winter
2/9/2017	Middlesex County	0	0	$0	Winter
2/9/2017	New Haven County	0	0	$0	Winter
2/9/2017	New Haven County	0	0	$0	Winter
2/9/2017	New Haven County	0	0	$0	Winter
2/9/2017	New Haven County	0	0	$0	Winter
2/9/2017	New London County	0	0	$0	Winter
2/9/2017	New London County	0	0	$0	Winter
2/9/2017	New London County	0	0	$0	Winter
2/9/2017	New London County	0	0	$0	Winter
2/9/2017	Tolland County	0	0	$0	Winter
2/9/2017	Windham County	0	0	$0	Winter
2/12/2017	Fairfield County	0	0	$0	Winter
2/12/2017	Litchfield County	0	0	$0	Winter
2/12/2017	Litchfield County	0	0	$0	Winter
2/13/2017	Fairfield County	0	0	$203,161	Thunderstorm
2/13/2017	Hartford County	0	0	$0	Thunderstorm
2/13/2017	New Haven County	0	0	$101,580	Thunderstorm
2/13/2017	New Haven County	0	0	$50,790	Thunderstorm
2/13/2017	New London County	0	0	$50,790	Thunderstorm
3/1/2017	Hartford County	0	0	$0	Drought
3/1/2017	Litchfield County	0	0	$0	Thunderstorm
3/1/2017	Litchfield County	0	0	$0	Thunderstorm
3/1/2017	Tolland County	0	0	$0	Drought
3/2/2017	Fairfield County	0	0	$101,580	Thunderstorm
3/2/2017	Fairfield County	0	0	$50,790	Thunderstorm
3/2/2017	Hartford County	0	0	$0	Thunderstorm
3/2/2017	New Haven County	0	0	$50,790	Thunderstorm
3/2/2017	New Haven County	0	0	$101,580	Thunderstorm
3/14/2017	Fairfield County	0	0	$0	Flood
3/14/2017	Fairfield County	0	0	$0	Winter
3/14/2017	Fairfield County	0	0	$0	Winter
3/14/2017	Hartford County	0	0	$0	Winter
3/14/2017	Litchfield County	0	0	$0	Winter
3/14/2017	Litchfield County	0	0	$0	Winter
3/14/2017	Middlesex County	0	0	$0	Winter
3/14/2017	New Haven County	0	0	$0	Winter
3/14/2017	New Haven County	0	0	$0	Flood

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
3/14/2017	New Haven County	0	0	$0	Winter
3/14/2017	New Haven County	0	0	$0	Winter
3/14/2017	New London County	0	0	$0	Winter
3/14/2017	New London County	0	0	$50,790	Thunderstorm
3/14/2017	Tolland County	0	0	$0	Winter
3/14/2017	Windham County	0	0	$0	Winter
3/22/2017	Fairfield County	0	0	$10,158	Thunderstorm
3/22/2017	Fairfield County	0	0	$10,158	Thunderstorm
3/22/2017	Hartford County	1	1	$7,111	Thunderstorm
3/22/2017	New Haven County	0	0	$10,158	Thunderstorm
3/22/2017	Tolland County	0	0	$1,016	Thunderstorm
4/1/2017	Hartford County	0	0	$0	Drought
4/1/2017	Tolland County	0	0	$0	Drought
4/6/2017	Fairfield County	0	0	$0	Flood
4/6/2017	Hartford County	0	0	$2,540	Thunderstorm
4/6/2017	Tolland County	0	0	$2,540	Thunderstorm
4/16/2017	Litchfield County	0	0	$1,016	Thunderstorm
4/16/2017	Litchfield County	0	0	$0	Thunderstorm
5/18/2017	Litchfield County	0	0	$0	Thunderstorm
5/31/2017	Litchfield County	0	0	$0	Thunderstorm
5/31/2017	Litchfield County	0	0	$0	Thunderstorm
6/19/2017	Fairfield County	0	0	$2,032	Thunderstorm
6/19/2017	Hartford County	0	0	$1,016	Thunderstorm
6/19/2017	Litchfield County	0	0	$0	Thunderstorm
6/19/2017	Litchfield County	0	0	$0	Thunderstorm
6/19/2017	Litchfield County	0	0	$0	Thunderstorm
6/19/2017	Litchfield County	0	0	$0	Thunderstorm
6/19/2017	Litchfield County	0	0	$0	Thunderstorm
6/19/2017	New Haven County	0	0	$762	Thunderstorm
6/19/2017	New Haven County	0	0	$1,524	Thunderstorm
6/21/2017	Litchfield County	0	0	$0	Thunderstorm
6/21/2017	Litchfield County	0	0	$0	Thunderstorm
6/27/2017	Hartford County	0	0	$0	Thunderstorm
6/27/2017	Hartford County	0	0	$0	Thunderstorm
6/27/2017	Hartford County	0	0	$0	Thunderstorm
6/27/2017	Hartford County	0	0	$0	Thunderstorm
6/27/2017	Hartford County	0	0	$0	Thunderstorm
6/27/2017	Hartford County	0	0	$0	Thunderstorm
6/27/2017	Litchfield County	0	0	$0	Thunderstorm
6/27/2017	Tolland County	0	0	$0	Thunderstorm
6/27/2017	Tolland County	0	0	$0	Thunderstorm
6/27/2017	Windham County	0	0	$0	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
6/30/2017	Fairfield County	0	0	$1,016	Thunderstorm
6/30/2017	Hartford County	0	0	$0	Flood
6/30/2017	Hartford County	0	0	$5,079	Thunderstorm
6/30/2017	Hartford County	0	0	$10,158	Thunderstorm
6/30/2017	Litchfield County	0	0	$0	Thunderstorm
6/30/2017	Litchfield County	0	0	$0	Thunderstorm
6/30/2017	New Haven County	0	0	$5,079	Thunderstorm
6/30/2017	New Haven County	0	0	$11,174	Thunderstorm
7/12/2017	Hartford County	0	0	$0	Thunderstorm
7/12/2017	Hartford County	0	0	$0	Thunderstorm
7/12/2017	Hartford County	0	0	$0	Thunderstorm
7/12/2017	Hartford County	0	0	$0	Thunderstorm
7/12/2017	Windham County	0	0	$5,079	Thunderstorm
7/12/2017	Windham County	0	0	$4,063	Thunderstorm
7/13/2017	Fairfield County	0	0	$1,016	Thunderstorm
7/13/2017	Fairfield County	0	0	$5,079	Thunderstorm
7/13/2017	Fairfield County	0	0	$5,079	Thunderstorm
7/13/2017	Fairfield County	0	0	$1,016	Thunderstorm
7/13/2017	Hartford County	0	0	$1,016	Thunderstorm
7/13/2017	Litchfield County	0	0	$0	Thunderstorm
7/13/2017	Litchfield County	0	0	$0	Thunderstorm
7/13/2017	New Haven County	0	0	$5,079	Thunderstorm
7/13/2017	New Haven County	0	0	$1,016	Thunderstorm
7/13/2017	New Haven County	0	0	$2,032	Thunderstorm
7/13/2017	New London County	0	1	$0	Thunderstorm
8/2/2017	Hartford County	0	0	$0	Thunderstorm
8/2/2017	Hartford County	0	0	$10,158	Flood
8/2/2017	Hartford County	0	0	$0	Thunderstorm
8/2/2017	Litchfield County	0	0	$0	Thunderstorm
8/2/2017	Litchfield County	0	0	$0	Thunderstorm
8/2/2017	Litchfield County	0	0	$0	Thunderstorm
8/2/2017	Litchfield County	0	0	$1,016	Thunderstorm
8/2/2017	Litchfield County	0	0	$0	Thunderstorm
8/2/2017	Litchfield County	0	0	$5,079	Flood
8/2/2017	Litchfield County	0	0	$0	Thunderstorm
8/2/2017	Litchfield County	0	0	$0	Thunderstorm
8/2/2017	Litchfield County	0	0	$0	Thunderstorm
8/2/2017	Litchfield County	0	0	$1,016	Flood
8/2/2017	Tolland County	0	0	$0	Thunderstorm
8/4/2017	Litchfield County	0	0	$0	Thunderstorm
9/5/2017	Fairfield County	0	0	$7,111	Thunderstorm
9/5/2017	Litchfield County	0	0	$0	Thunderstorm

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
9/5/2017	Litchfield County	0	0	$0	Thunderstorm
9/5/2017	Litchfield County	0	0	$0	Thunderstorm
9/6/2017	New London County	0	0	$10,158	Thunderstorm
9/6/2017	New London County	1	1	$15,237	Thunderstorm
9/6/2017	New London County	0	0	$5,079	Thunderstorm
10/24/2017	Fairfield County	0	0	$0	Flood
10/24/2017	Hartford County	0	0	$1,524	Thunderstorm
10/24/2017	Hartford County	0	0	$0	Flood
10/24/2017	New Haven County	0	0	$50,790	Thunderstorm
10/24/2017	New Haven County	0	0	$0	Flood
10/24/2017	Windham County	0	0	$1,016	Thunderstorm
10/25/2017	Hartford County	0	0	$0	Flood
10/29/2017	Fairfield County	0	0	$50,790	Thunderstorm
10/29/2017	Hartford County	0	0	$15,237	Thunderstorm
10/29/2017	Litchfield County	0	0	$0	Thunderstorm
10/29/2017	Litchfield County	0	0	$0	Thunderstorm
10/29/2017	Litchfield County	0	0	$1,016	Thunderstorm
10/29/2017	Litchfield County	0	0	$1,016	Thunderstorm
10/29/2017	New Haven County	0	0	$0	Flood
10/29/2017	New Haven County	0	0	$50,790	Thunderstorm
10/29/2017	New Haven County	0	0	$50,790	Thunderstorm
10/29/2017	New London County	0	0	$50,790	Thunderstorm
10/30/2017	Hartford County	0	0	$0	Flood
10/30/2017	Litchfield County	0	0	$1,016	Thunderstorm
10/30/2017	Litchfield County	0	0	$1,016	Thunderstorm
10/30/2017	Windham County	0	0	$6,095	Thunderstorm
11/10/2017	Litchfield County	0	0	$1,016	Thunderstorm
11/10/2017	Litchfield County	0	0	$1,016	Thunderstorm
11/16/2017	Litchfield County	0	0	$35,553	Thunderstorm
11/19/2017	Litchfield County	0	0	$1,016	Thunderstorm
11/19/2017	Litchfield County	0	0	$1,016	Thunderstorm
11/19/2017	New London County	0	0	$50,790	Thunderstorm
11/19/2017	Windham County	0	0	$3,047	Thunderstorm
12/9/2017	Fairfield County	0	0	$0	Winter
12/9/2017	Fairfield County	0	0	$0	Winter
12/9/2017	Hartford County	0	0	$0	Winter
12/9/2017	Litchfield County	0	0	$0	Winter
12/9/2017	Litchfield County	0	0	$0	Winter
12/9/2017	New Haven County	0	0	$0	Winter
12/9/2017	New Haven County	0	0	$0	Winter
12/9/2017	Tolland County	0	0	$0	Winter

Begin Date	County	Fatalities	Injuries	Property Damages (2017 Inflated)	HIRA Type
12/9/2017	Windham County	0	0	$0	Winter
12/23/2017	Hartford County	0	0	$0	Winter
12/23/2017	Windham County	0	0	$0	Winter
12/24/2017	Hartford County	0	0	$0	Winter
12/24/2017	Tolland County	0	0	$0	Winter
12/27/2017	Litchfield County	0	0	$0	Winter
12/27/2017	Litchfield County	0	0	$0	Winter
12/31/2017	Litchfield County	0	0	$0	Winter
12/31/2017	Litchfield County	0	0	$0	Winter

NFIP Statistics

Community Name	Status	Emergency Entry Date	Regular Entry Date	Current Map Date	FIRM Status	Initial FIRM Date	CRS Participant
BETHEL, TOWN OF	PARTICIPATING	07/25/1975	02/15/1984	06/18/2010	REVISED	02/15/1984	N
BRIDGEPORT, CITY OF	PARTICIPATING	08/07/1973	10/15/1980	07/08/2013	REVISED	10/15/1980	N
BROOKFIELD, TOWN OF	PARTICIPATING	06/25/1975	06/15/1979	06/18/2010	REVISED	06/15/1979	N
DANBURY, CITY OF	PARTICIPATING	11/19/1971	05/02/1977	06/18/2010	REVISED	05/02/1977	N
DARIEN, TOWN OF	PARTICIPATING	01/19/1973	01/02/1981	07/08/2013	REVISED	01/02/1981	N
EASTON, TOWN OF	PARTICIPATING	01/07/1975	09/30/1983	06/18/2010	REVISED	09/30/1983	N
FAIRFIELD, TOWN OF	PARTICIPATING	04/07/1972	08/15/1978	07/08/2013	REVISED	08/15/1978	Y
GREENWICH, TOWN OF	PARTICIPATING	02/04/1972	09/30/1977	07/08/2013	REVISED	09/30/1977	N
MONROE, TOWN OF	PARTICIPATING	04/24/1975	04/17/1985	06/18/2010	REVISED	04/17/1985	N
NEW CANAAN, TOWN OF	PARTICIPATING	04/07/1972	05/16/1977	06/18/2010	REVISED	05/16/1977	N
NEWTOWN, TOWN OF	PARTICIPATING	08/28/1975	06/15/1979	06/18/2010	REVISED	06/15/1979	Y
NORWALK, CITY OF	PARTICIPATING	03/10/1972	04/03/1978	10/16/2013	REVISED	04/03/1978	Y
RIDGEFIELD, TOWN OF	PARTICIPATING	01/24/1975	09/30/1982	06/18/2010	REVISED	09/30/1982	N
SHELTON, CITY OF	PARTICIPATING	08/31/1973	09/29/1978	06/18/2010	REVISED	09/29/1978	N
STAMFORD, CITY OF	PARTICIPATING	03/10/1972	01/16/1981	07/08/2013	REVISED	01/16/1981	Y
STRATFORD, TOWN OF	PARTICIPATING	08/18/1972	06/01/1978	07/08/2013	REVISED	06/01/1978	N
TRUMBULL, TOWN OF	PARTICIPATING	01/15/1974	12/04/1979	06/18/2010	REVISED	12/04/1979	N
WESTON, TOWN OF	PARTICIPATING	09/08/1972	10/17/1978	06/18/2010	REVISED	10/17/1978	N
WESTPORT, TOWN OF	PARTICIPATING	10/08/1971	07/02/1980	07/08/2013	REVISED	07/02/1980	Y
WILTON, TOWN OF	PARTICIPATING	07/31/1974	11/17/1982	10/16/2013	REVISED	11/17/1982	N
AVON, TOWN OF	PARTICIPATING	10/06/1972	05/16/1977	09/26/2008	REVISED	05/16/1977	N
BERLIN, TOWN OF	PARTICIPATING	01/14/1975	07/16/1980	09/26/2008	REVISED	07/16/1980	N
BRISTOL, CITY OF	PARTICIPATING	05/02/1975	11/18/1981	05/16/2017	REVISED	11/18/1981	N
COLLINSVILLE, TOWN OF	NOT A NFIP COMMUNITY				NEVER MAPPED		N
EAST GRANBY, TOWN OF	PARTICIPATING	04/09/1974	01/06/1982	09/26/2008	REVISED	01/06/1982	N
EAST HARTFORD, TOWN OF	PARTICIPATING	12/29/1972	12/18/1979	09/16/2011	REVISED	12/18/1979	N
EAST WINDSOR, TOWN OF	PARTICIPATING	01/12/1973	04/03/1978	09/26/2008	REVISED	04/03/1978	N
ENFIELD, TOWN OF	PARTICIPATING	04/04/1974	03/28/1980	09/26/2008	REVISED	03/28/1980	N
FARMINGTON, TOWN OF	PARTICIPATING	11/26/1971	08/15/1977	09/26/2008	REVISED	08/15/1977	N
MANCHESTER, TOWN OF	PARTICIPATING	02/05/1974	08/16/1982	09/26/2008	REVISED	08/16/1982	N
NEW BRITAIN, CITY OF	PARTICIPATING	08/22/1973	07/16/1981	05/16/2017	REVISED	07/16/1981	N
NEWINGTON, TOWN OF	PARTICIPATING	07/02/1974	10/16/1979	09/26/2008	REVISED	10/16/1979	N
PLAINVILLE, TOWN OF	PARTICIPATING	05/29/1974	11/19/1980	05/16/2017	REVISED	11/19/1980	N

Community Name	Status	Emergency Entry Date	Regular Entry Date	Current Map Date	FIRM Status	Initial FIRM Date	CRS Participant
SIMSBURY, TOWN OF	PARTICIPATING	12/10/1971	05/16/1977	09/26/2008	REVISED	05/16/1977	N
SOUTH WINDSOR, TOWN OF	PARTICIPATING	07/25/1974	05/01/1980	09/26/2008	REVISED	05/01/1980	N
SOUTHINGTON, TOWN OF	PARTICIPATING	07/03/1975	07/16/1981	05/16/2017	REVISED	07/16/1981	N
SUFFIELD, TOWN OF	PARTICIPATING	06/28/1978	08/15/1979	09/26/2008	REVISED	08/15/1979	N
WETHERSFIELD, TOWN OF	PARTICIPATING	04/14/1972	05/02/1977	09/16/2011	REVISED	05/02/1977	N
WINDSOR, TOWN OF	PARTICIPATING	06/25/1975	09/29/1978	09/16/2011	REVISED	09/29/1978	N
WINDSOR LOCKS, TOWN OF	PARTICIPATING	06/26/1975	01/03/1979	09/26/2008	REVISED	01/03/1979	N
BANTAM, BOROUGH OF	PARTICIPATING	07/25/1975	10/15/1981	10/15/1981	ALL ZONE A, C AND X - NO ELEVATION DETERMINED	10/15/1981	N
CANAAN, TOWN OF	PARTICIPATING	07/03/1975	09/02/1988	09/02/1988	ORIGINAL	09/02/1988	N
CORNWALL, TOWN OF	PARTICIPATING	07/25/1975	08/16/1988	08/16/1988	ORIGINAL	08/16/1988	N
HOTCHKISSVILLE, TOWN OF	NOT PARTICIPATING				NEVER MAPPED		N
LITCHFIELD, TOWN OF	PARTICIPATING	06/06/1975	06/15/1982	01/02/1992	REVISED	06/15/1982	N
NEW HARTFORD, TOWN OF	PARTICIPATING	06/02/1975	02/03/1982	02/03/1982	ORIGINAL	02/03/1982	N
NEW MILFORD,TOWN OF	PARTICIPATING	04/10/1974	04/15/1980	06/04/1987	REVISED	04/15/1980	N
PLEASANT VALLEY, TOWN OF	NOT PARTICIPATING				NEVER MAPPED		N
ROXBURY, TOWN OF	PARTICIPATING	08/19/1975	12/03/1987	12/03/1987	ORIGINAL	12/03/1987	N
SALISBURY, TOWN OF	PARTICIPATING	10/03/1974	01/05/1989	01/05/1989	ORIGINAL	01/05/1989	N
SHARON, TOWN OF	PARTICIPATING	01/17/1975	08/16/1988	08/16/1988	ORIGINAL	08/16/1988	N
TERRYVILLE, TOWN OF	NOT PARTICIPATING				NEVER MAPPED		N
THOMASTON, TOWN OF	PARTICIPATING	07/16/1975	07/05/1982	07/05/1982	ORIGINAL	07/05/1982	N
WASHINGTON, TOWN OF	PARTICIPATING	07/24/1975	06/03/1988	09/30/1992	REVISED	06/03/1988	N
WATERTOWN, TOWN OF	PARTICIPATING	12/17/1974	11/05/1980	11/05/1980	ORIGINAL	11/05/1980	N
WINSTED, CITY OF	NOT A NFIP COMMUNITY				NEVER MAPPED		N
CHESTER, TOWN OF	PARTICIPATING	01/12/1973	07/16/1980	02/06/2013	REVISED	07/16/1980	N
CLINTON, TOWN OF	PARTICIPATING	03/02/1973	09/30/1980	02/06/2013	REVISED	09/30/1980	N
DEEP RIVER, TOWN OF	PARTICIPATING	03/30/1973	01/16/1981	02/06/2013	REVISED	01/16/1981	N
EAST HADDAM, TOWN OF	PARTICIPATING	02/10/1975	11/01/1979	02/06/2013	REVISED	11/01/1979	N
EAST HAMPTON, TOWN OF	PARTICIPATING	08/21/1974	10/16/1979	02/06/2013	REVISED	10/16/1979	N
ESSEX, TOWN OF	PARTICIPATING	02/09/1973	07/16/1980	02/06/2013	REVISED	07/16/1980	N
HADDAM, TOWN OF	PARTICIPATING	05/23/1975	01/16/1980	02/06/2013	REVISED	01/16/1980	N

Community Name	Status	Emergency Entry Date	Regular Entry Date	Current Map Date	FIRM Status	Initial FIRM Date	CRS Participant
MIDDLEFIELD, TOWN OF	PARTICIPATING	10/25/1973	03/28/1980	02/06/2013	REVISED	03/28/1980	N
MIDDLETOWN, CITY OF	PARTICIPATING	08/16/1974	12/16/1980	02/06/2013	REVISED	12/16/1980	N
OLD SAYBROOK, TOWN OF	PARTICIPATING	03/31/1972	07/03/1978	02/06/2013	REVISED	07/03/1978	N
WESTBROOK,TOWN OF	PARTICIPATING	03/09/1973	12/01/1982	02/06/2013	REVISED	12/01/1982	Y
ANSONIA, CITY OF	PARTICIPATING	11/02/1974	09/02/1981	05/16/2017	REVISED	09/02/1981	N
BEACON FALLS, TOWN OF	PARTICIPATING	06/27/1975	03/01/1979	10/16/2013	REVISED	03/01/1979	N
BRANFORD, TOWN OF	PARTICIPATING	04/05/1973	12/15/1977	05/16/2017	REVISED	12/15/1977	N
CHESHIRE, TOWN OF	PARTICIPATING	03/13/1975	07/16/1981	05/16/2017	REVISED	07/16/1981	Y
DERBY, CITY OF	PARTICIPATING	02/04/1972	09/15/1977	05/16/2017	REVISED	09/15/1977	N
EAST HAVEN, TOWN OF	PARTICIPATING	04/19/1973	02/01/1978	05/16/2017	REVISED	02/01/1978	Y
GUILFORD, TOWN OF	PARTICIPATING	10/20/1972	05/01/1978	05/16/2017	REVISED	05/01/1978	N
HAMDEN, TOWN OF	PARTICIPATING	05/03/1973	06/15/1979	05/16/2017	REVISED	06/15/1979	Y
MADISON, TOWN OF	PARTICIPATING	07/19/1973	09/15/1978	07/08/2013	REVISED	09/15/1978	N
MIDDLEBURY, TOWN OF	PARTICIPATING	07/16/1975	10/16/1979	07/08/2013	REVISED	10/16/1979	N
MERIDEN, CITY OF	PARTICIPATING	04/11/1974	09/30/1982	05/16/2017	REVISED	09/30/1982	N
MILFORD, CITY OF	PARTICIPATING	01/14/1972	09/29/1978	05/16/2017	REVISED	09/29/1978	Y
NEW HAVEN, CITY OF	PARTICIPATING	10/25/1973	07/16/1980	05/16/2017	REVISED	07/16/1980	Y
NORTH BRANFORD, TOWN OF	PARTICIPATING	10/20/1972	07/03/1978	05/16/2017	REVISED	07/03/1978	N
NORTH HAVEN, TOWN OF	PARTICIPATING	07/13/1973	09/17/1980	05/16/2017	REVISED	09/17/1980	N
ORANGE, TOWN OF	PARTICIPATING	05/25/1973	03/18/1980	05/16/2017	REVISED	03/18/1980	N
SEYMOUR, TOWN OF	PARTICIPATING	12/18/1974	07/03/1978	10/16/2013	REVISED	07/03/1978	N
SOUTHBURY, TOWN OF	PARTICIPATING	08/31/1973	03/28/1980	07/08/2013	REVISED	03/28/1980	N
WALLINGFORD, TOWN OF	PARTICIPATING	06/25/1973	09/15/1978	05/16/2017	REVISED	09/15/1978	Y
WATERBURY, CITY OF	PARTICIPATING	05/23/1975	11/01/1979	07/08/2013	REVISED	11/01/1979	N
WEST HAVEN, CITY OF	PARTICIPATING	10/06/1972	01/17/1979	07/08/2013	REVISED	01/17/1979	N
WOLCOTT, TOWN OF	PARTICIPATING	08/06/1975	07/05/1982	07/08/2013	REVISED	07/05/1982	N
BOZRAH, TOWN OF	PARTICIPATING	04/23/1974	09/30/1981	07/18/2011	REVISED	09/30/1981	N
COLCHESTER, TOWN OF	PARTICIPATING	05/21/1975	06/15/1982	07/18/2011	REVISED	06/15/1982	N
EAST LYME, TOWN OF	PARTICIPATING	10/23/1973	06/15/1981	08/05/2013	REVISED	06/15/1981	Y
GROTON, TOWN OF	PARTICIPATING	02/18/1972	04/15/1977	08/05/2013	REVISED	04/15/1977	N
JEWETT CITY, BOROUGH OF	PARTICIPATING	03/15/1976	04/03/1985	07/18/2011	REVISED	04/03/1985	N
MONTVILLE, TOWN OF	PARTICIPATING	11/27/1973	07/02/1980	08/05/2013	REVISED	07/02/1980	N

Community Name	Status	Emergency Entry Date	Regular Entry Date	Current Map Date	FIRM Status	Initial FIRM Date	CRS Participant
NEW LONDON, CITY OF	PARTICIPATING	03/24/1972	05/02/1977	08/05/2013	REVISED	05/02/1977	N
NORTH STONINGTON, TOWN OF	PARTICIPATING	09/15/1975	04/03/1985	07/18/2011	REVISED	04/03/1985	N
NORWICH, CITY OF	PARTICIPATING	04/12/1973	06/15/1978	07/18/2011	REVISED	06/15/1978	N
OLD LYME, TOWN OF	PARTICIPATING	04/10/1973	07/16/1980	08/05/2013	REVISED	07/16/1980	N
POGUETANUCK, TOWN OF	NOT PARTICIPATING				NEVER MAPPED		N
SPRAGUE, TOWN OF	PARTICIPATING	04/14/1975	01/03/1985	07/18/2011	REVISED	01/03/1985	N
STONINGTON, TOWN OF	PARTICIPATING	05/28/1975	09/30/1980	08/05/2013	REVISED	09/30/1980	Y
WATERFORD, TOWN OF	PARTICIPATING	08/23/1974	02/04/1981	08/05/2013	REVISED	02/04/1981	N
BOLTON, TOWN OF	PARTICIPATING	09/04/1975	06/01/1981	06/01/1981	ORIGINAL	06/01/1981	N
COVENTRY, TOWN OF	PARTICIPATING	01/07/1974	06/04/1980	06/11/1982	REVISED	06/04/1980	N
ROCKVILLE, CITY OF	NOT PARTICIPATING				NEVER MAPPED		N
SOMERS, TOWN OF	PARTICIPATING	07/25/1975	02/17/1982	08/16/2006	REVISED	02/17/1982	N
STAFFORD SPRINGS, BOROUGH OF	DEFUNCT	08/05/1975	06/01/1982	06/01/1982	ORIGINAL	06/01/1982	N
EASTFORD, TOWN OF	PARTICIPATING	06/26/1975	05/16/1983	05/16/1983	ORIGINAL	05/16/1983	N
PLAINFIELD, TOWN OF	PARTICIPATING	02/20/1975	06/17/1991	06/17/1991	ORIGINAL	06/17/1991	N
THOMPSON, TOWN OF	PARTICIPATING	06/26/1975	11/01/1984	11/01/1984	ORIGINAL	11/01/1984	N
STERLING, TOWN OF	PARTICIPATING	07/23/1975	03/04/1985	03/04/1985	ORIGINAL	03/04/1985	N
WINDHAM, TOWN OF	PARTICIPATING	06/26/1975	02/03/1982	11/06/1998	REVISED	02/03/1982	N
WOODSTOCK, TOWN OF	PARTICIPATING	09/25/1975	11/01/1984	11/01/1984	ORIGINAL	11/01/1984	N
WILLIMANTIC, CITY OF	DEFUNCT	07/31/1975	08/02/1982	08/02/1982	RESCINDED	08/02/1982	N
BLOOMFIELD, TOWN OF	PARTICIPATING	02/18/1972	08/15/1977	09/16/2011	REVISED	08/15/1977	N
CROMWELL, TOWN OF	PARTICIPATING	11/15/1973	06/15/1978	02/06/2013	REVISED	06/15/1978	N
GLASTONBURY, TOWN OF	PARTICIPATING	12/15/1972	06/15/1978	09/16/2011	REVISED	06/15/1978	N
GRANBY, TOWN OF	PARTICIPATING	09/27/1973	02/15/1980	09/16/2011	REVISED	02/15/1980	N
GROTON, CITY OF	PARTICIPATING	09/18/1973	05/15/1980	08/05/2013	REVISED	05/15/1980	N
LYME, TOWN OF	PARTICIPATING	08/16/1973	01/03/1979	08/05/2013	REVISED	01/03/1979	N
MANSFIELD, TOWN OF	PARTICIPATING	03/09/1973	01/02/1981	01/02/1981	ORIGINAL	01/02/1981	N
NOANK FIRE DISTRICT	PARTICIPATING	09/25/1973	09/17/1980	08/05/2013	REVISED	09/17/1980	N
PORTLAND, TOWN OF	PARTICIPATING	10/31/1973	07/03/1978	02/06/2013	REVISED	07/03/1978	N
VERNON, TOWN OF	PARTICIPATING	01/26/1973	12/04/1979	08/09/1999	REVISED	12/04/1979	N
WINCHESTER, TOWN OF	PARTICIPATING	10/27/1972	07/17/1978	07/17/1978	ORIGINAL	07/17/1978	N

Community Name	Status	Emergency Entry Date	Regular Entry Date	Current Map Date	FIRM Status	Initial FIRM Date	CRS Participant
WOODBURY, TOWN OF	PARTICIPATING	02/18/1972	01/05/1978	10/20/1978	ORIGINAL	01/05/1978	N
BARKHAMSTED, TOWN OF	PARTICIPATING	03/28/1975	02/17/1982	02/17/1982	ORIGINAL	02/17/1982	N
CANTON, TOWN OF	PARTICIPATING	03/02/1974	08/02/1979	09/26/2008	REVISED	08/01/1979	N
KILLINGLY, TOWN OF	PARTICIPATING	09/05/1975	01/03/1985	01/03/1985	ALL ZONE A, C AND X - NO ELEVATION DETERMINED	01/03/1985	N
NAUGATUCK, BOROUGH OF	PARTICIPATING	06/26/1975	08/15/1979	07/08/2013	REVISED	08/15/1979	N
PLYMOUTH, TOWN OF	PARTICIPATING	09/04/1975	10/15/1982	11/06/1998	REVISED	10/15/1982	N
PRESTON, TOWN OF	PARTICIPATING	08/21/1975	03/04/1985	07/18/2011	REVISED	03/04/1985	N
PUTNAM, CITY OF	DEFUNCT	07/18/1975	11/01/1984		ALL ZONE C AND X - NO PUBLISHED FIRM		N
REDDING, TOWN OF	PARTICIPATING	09/23/1974	06/15/1982	06/18/2010	REVISED	06/15/1982	N
ROCKY HILL, TOWN OF	PARTICIPATING	05/12/1975	08/01/1980	09/26/2008	REVISED	08/01/1980	N
VOLUNTOWN, TOWN OF	PARTICIPATING	07/17/1975	06/03/1988	07/18/2011	REVISED	06/03/1988	N
BETHANY, TOWN OF	PARTICIPATING	07/24/1975	08/23/1977	07/08/2013	REVISED	08/23/1977	N
BURLINGTON, TOWN OF	PARTICIPATING	04/14/1975	06/01/1981	09/26/2008	REVISED	06/01/1981	N
HARTLAND, TOWN OF	PARTICIPATING	01/14/1975	12/16/1980	09/26/2008	REVISED	12/16/1980	N
HARWINTON, TOWN OF	PARTICIPATING	07/23/1975	02/17/1982	02/17/1982	ORIGINAL	02/17/1982	N
MARLBOROUGH, TOWN OF	PARTICIPATING	02/05/1975	05/17/1982	09/26/2008	REVISED	05/17/1982	N
NORTH CANAAN, TOWN OF	PARTICIPATING	02/21/1975	11/18/1988	01/02/2008	REVISED	11/18/1988	N
OXFORD, TOWN OF	PARTICIPATING	07/01/1975	12/04/1979	07/08/2013	REVISED	12/04/1979	N
PROSPECT, TOWN OF	PARTICIPATING	07/01/1975	02/04/1977	05/16/2017	REVISED	02/04/1977	N
STAFFORD, TOWN OF	PARTICIPATING	01/12/1982	06/01/1982	06/01/1982	ORIGINAL	06/01/1982	N
WOODBRIDGE, TOWN OF	PARTICIPATING	06/18/1975	03/16/1981	05/16/2017	REVISED	03/16/1981	N
FRANKLIN, TOWN OF	PARTICIPATING	07/23/1975	12/01/1981	07/18/2011	REVISED	12/01/1981	N
LEBANON, TOWN OF	PARTICIPATING	05/27/1976	06/03/1988	07/18/2011	REVISED	06/03/1988	N
SALEM, TOWN OF	PARTICIPATING	07/01/1982	07/16/1982	07/18/2011	REVISED	02/03/1982	N
LEDYARD, TOWN OF	PARTICIPATING	08/22/1978	04/01/1981	08/05/2013	REVISED	04/01/1981	N
ELLINGTON, TOWN OF	PARTICIPATING	07/29/1975	03/15/1982	02/05/1997	REVISED	03/15/1982	N
WILLINGTON, TOWN OF	PARTICIPATING	01/13/1976	06/15/1982	06/15/1982	ORIGINAL	06/15/1982	N
COLUMBIA, TOWN OF	PARTICIPATING	08/04/1975	09/16/1982	09/16/1982	ORIGINAL	09/16/1982	N

Community Name	Status	Emergency Entry Date	Regular Entry Date	Current Map Date	FIRM Status	Initial FIRM Date	CRS Participant
ANDOVER, TOWN OF	PARTICIPATING	11/20/1975	02/03/1982	02/03/1982	ORIGINAL	02/03/1982	N
HEBRON, TOWN OF	PARTICIPATING	10/17/1975	10/15/1981	03/18/1991	REVISED	10/15/1981	N
POMFRET, TOWN OF	PARTICIPATING	10/08/1975	04/17/1985	04/17/1985	ORIGINAL	04/17/1985	N
BROOKLYN, TOWN OF	PARTICIPATING	02/10/1976	01/03/1985	01/03/1985	ORIGINAL	01/03/1985	N
ASHFORD, TOWN OF	PARTICIPATING	11/01/1974	12/01/1981	12/01/1981	ORIGINAL	12/01/1981	N
SHERMAN,TOWN OF	PARTICIPATING	07/25/1975	06/18/1987	06/18/2010	REVISED	06/18/1987	N
GROTON LONG POINT ASSOCIATION	PARTICIPATING	08/20/1974	03/18/1980	08/05/2013	REVISED	03/18/1980	N
WOODMONT, BOROUGH OF	NOT A NFIP COMMUNITY			07/08/2013	REVISED	09/28/1978	N
DANIELSON, BOROUGH OF	PARTICIPATING	02/17/1976	11/01/1984	11/01/1984	ORIGINAL	11/01/1984	N
HAMPTON, TOWN OF	PARTICIPATING	12/29/1975	12/04/1985	12/04/1985	ALL ZONE A, C AND X - NO ELEVATION DETERMINED	12/04/1985	N
TOLLAND, TOWN OF	PARTICIPATING	05/29/1975	04/01/1982	04/01/1982	ORIGINAL	04/01/1982	N
LISBON, TOWN OF	PARTICIPATING	01/12/1976	02/15/1985	07/18/2011	REVISED	02/15/1985	N
GRISWOLD, TOWN OF	PARTICIPATING	03/15/1976	01/03/1985	07/18/2011	REVISED	01/03/1985	N
KILLINGWORTH, TOWN OF	PARTICIPATING	07/15/1975	03/15/1982	02/06/2013	REVISED	03/15/1982	N
WARREN, TOWN OF	PARTICIPATING	02/13/1976	01/03/1990	01/03/1990	ORIGINAL	01/03/1990	N
MORRIS, TOWN OF	PARTICIPATING	02/24/1975	09/30/1981	09/30/1981	ORIGINAL	09/30/1981	N
GOSHEN, TOWN OF	PARTICIPATING	08/25/1975	11/16/1990	11/16/1990	ORIGINAL	11/16/1990	N
BETHLEHEM, TOWN OF	PARTICIPATING	11/28/1975	06/04/1990	06/04/1990	ORIGINAL	06/04/1990	N
CHAPLIN, TOWN OF	PARTICIPATING	12/18/1975	01/06/1982	01/06/1982	ORIGINAL	01/06/1982	N
COLEBROOK, TOWN OF	PARTICIPATING	05/03/1976	06/03/1986	06/03/1986	ALL ZONE A, C AND X - NO ELEVATION DETERMINED	03/20/1979	N
NORFOLK, TOWN OF	PARTICIPATING	10/22/1975	12/03/1987	12/03/1987	ORIGINAL	12/03/1987	N
SCOTLAND, TOWN OF	PARTICIPATING	12/29/1976	12/04/1985	12/04/1985	ALL ZONE A, C AND X - NO ELEVATION DETERMINED	12/04/1985	N
CANTERBURY, TOWN OF	PARTICIPATING	08/05/1976	10/16/1984	10/16/1984	ORIGINAL	10/16/1984	N
BRIDGEWATER, TOWN OF	PARTICIPATING	11/11/1975	11/01/1979	11/01/1979	ORIGINAL	11/01/1979	N
DURHAM, TOWN OF	PARTICIPATING	07/15/1975	04/01/1982	02/06/2013	REVISED	04/01/1982	N
KENT, TOWN OF	PARTICIPATING	02/13/1976	03/04/1980	03/04/1980	ORIGINAL	03/04/1980	N
FENWICK, BOROUGH OF	PARTICIPATING	07/10/1979	07/10/1979	02/06/2013	REVISED	07/03/1978	N
NEW FAIRFIELD, TOWN OF	PARTICIPATING	11/17/1975	02/15/1984	06/18/2010	REVISED	02/15/1984	N

Community Name	Status	Emergency Entry Date	Regular Entry Date	Current Map Date	FIRM Status	Initial FIRM Date	CRS Participant
FAIRFIELD COUNTY	NOT A NFIP COMMUNITY				NEVER MAPPED		N
UNION, TOWN OF	PARTICIPATING	11/07/1975	12/04/1985	12/04/1985	ALL ZONE A, C AND X - NO ELEVATION DETERMINED	12/04/1985	N
LITCHFIELD, BOROUGH OF	DEFUNCT	11/11/1975		12/17/1976	NEVER MAPPED		N
COLCHESTER, BOROUGH OF	NOT A NFIP COMMUNITY	05/21/1975	06/15/1982		RESCINDED	06/15/1982	N
STONINGTON, BOROUGH OF	PARTICIPATING	05/04/1976	11/01/1979	08/05/2013	REVISED	11/01/1979	Y
PUTNAM, TOWN OF	PARTICIPATING	09/02/1975	10/18/1988	10/18/1988	ORIGINAL	10/18/1988	N
SHEFFIELD, TOWN OF	DEFUNCT				NEVER MAPPED		N
HARTFORD, CITY OF	PARTICIPATING	06/30/1970	04/28/1972	09/16/2011	REVISED	07/01/1974	N
TORRINGTON, CITY OF	PARTICIPATING	06/30/1970	05/19/1972	04/04/1983	REVISED	05/19/1972	N
WEST HARTFORD, TOWN OF	PARTICIPATING	06/19/1970	09/24/1971	09/26/2008	REVISED	07/01/1974	Y

Repetitive & Severe Repetitive Loss Properties

Repetitive & Severe Repetitive Loss Properties

Community	Number of Repetitive Loss Properties	Number of Severe Repetitive Loss Properties
AVON, TOWN OF	3	0
BERLIN, TOWN OF	5	0
BETHEL, TOWN OF	3	1
BLOOMFIELD, TOWN OF	3	0
BRANFORD, TOWN OF	121	3
BRIDGEPORT, CITY OF	85	0
BRISTOL, CITY OF	26	1
BROOKFIELD, TOWN OF	3	0
BURLINGTON, TOWN OF	1	0
CANTON, TOWN OF	7	0
CHAPLIN, TOWN OF	1	0
CHESHIRE, TOWN OF	4	0
CHESTER, TOWN OF	3	1
CLINTON, TOWN OF	54	1
COLUMBIA, TOWN OF	1	0
CROMWELL, TOWN OF	3	0
DANBURY, CITY OF	25	2
DARIEN, TOWN OF	55	5
DEEP RIVER, TOWN OF	1	1
DERBY, CITY OF	3	0
DURHAM, TOWN OF	1	0
EAST HADDAM, TOWN OF	3	0
EAST HAMPTON, TOWN OF	1	0
EAST HARTFORD, TOWN OF	5	0
EAST HAVEN, TOWN OF	190	26
EAST LYME, TOWN OF	22	1
EASTON, TOWN OF	1	0
ENFIELD, TOWN OF	5	0
ESSEX, TOWN OF	5	0
FAIRFIELD, TOWN OF	186	9
FARMINGTON, TOWN OF	5	0
FENWICK, BOROUGH OF	2	0
FRANKLIN, TOWN OF	2	0
GRANBY, TOWN OF	1	0
GREENWICH, TOWN OF	117	13
GROTON LONG POINT ASSOCIATION	5	0

GROTON, CITY OF	4	0
GROTON, TOWN OF	5	0
GUILFORD, TOWN OF	59	2
HADDAM, TOWN OF	5	0
HAMDEN, TOWN OF	46	0
HARTFORD, CITY OF	2	0
KENT, TOWN OF	3	0
KILLINGWORTH, TOWN OF	1	0
LEDYARD, TOWN OF	3	0
LITCHFIELD, TOWN OF	1	0
LYME, TOWN OF	5	0
MADISON, TOWN OF	86	1
MANCHESTER, TOWN OF	2	0
MANSFIELD, TOWN OF	2	2
MARLBOROUGH, TOWN OF	1	0
MERIDEN, CITY OF	27	0
MIDDLEBURY, TOWN OF	2	0
MIDDLETOWN, CITY OF	2	0
MILFORD, CITY OF	491	21
MONTVILLE, TOWN OF	2	0
MORRIS, TOWN OF	1	0
NEW BRITAIN, CITY OF	14	0
NEW CANAAN, TOWN OF	6	0
NEW HARTFORD, TOWN OF	3	0
NEW HAVEN, CITY OF	42	1
NEW LONDON, CITY OF	14	1
NEW MILFORD,TOWN OF	13	0
NEWINGTON, TOWN OF	4	0
NEWTOWN, TOWN OF	3	0
NORTH BRANFORD, TOWN OF	9	0
NORTH HAVEN, TOWN OF	14	3
NORTH STONINGTON, TOWN OF	2	0
NORWALK, CITY OF	227	11
NORWICH, CITY OF	20	0
OLD LYME, TOWN OF	34	2
OLD SAYBROOK, TOWN OF	93	3
ORANGE, TOWN OF	11	2
OXFORD, TOWN OF	11	2
PLAINFIELD, TOWN OF	1	0
PLAINVILLE, TOWN OF	5	0
PLYMOUTH, TOWN OF	3	0
POMFRET, TOWN OF	1	0
PORTLAND, TOWN OF	4	1

PUTNAM, TOWN OF	1	0
RIDGEFIELD, TOWN OF	6	0
ROCKY HILL, TOWN OF	1	0
SHELTON, CITY OF	14	3
SIMSBURY, TOWN OF	10	1
SOUTH WINDSOR, TOWN OF	1	0
SOUTHBURY, TOWN OF	17	0
SOUTHINGTON, TOWN OF	8	0
STAMFORD, CITY OF	102	9
STONINGTON, BOROUGH OF	2	0
STONINGTON, TOWN OF	16	0
STRATFORD, TOWN OF	68	4
THOMASTON, TOWN OF	1	0
TORRINGTON, CITY OF	3	0
TRUMBULL, TOWN OF	23	0
VERNON, TOWN OF	3	0
WALLINGFORD, TOWN OF	11	0
WARREN, TOWN OF	2	0
WASHINGTON, TOWN OF	2	0
WATERBURY, CITY OF	5	0
WATERFORD, TOWN OF	10	0
WATERTOWN, TOWN OF	3	0
WEST HARTFORD,TOWN OF	33	0
WEST HAVEN, CITY OF	62	2
WESTBROOK,TOWN OF	77	0
WESTON, TOWN OF	15	0
WESTPORT, TOWN OF	227	20
WETHERSFIELD, TOWN OF	5	0
WILTON, TOWN OF	15	1
WINDSOR LOCKS, TOWN OF	1	0
WINDSOR, TOWN OF	2	0
WOLCOTT, TOWN OF	3	0
WOODBRIDGE, TOWN OF	6	0
WOODBURY, TOWN OF	1	0
WOODSTOCK, TOWN OF	1	0
Total	2,999	156

Hazus-MH: Global Summary Reports

Hazus-MH: Flood Event Report

Region Name: CT_HurrSandy_v21

Flood Scenario: CT_SandyFinalDG

Print Date: Thursday, May 23, 2013

Disclaimer:

Totals only reflect data for those census tracts/blocks included in the user's study region.

The estimates of social and economic impacts contained in this report were produced using Hazus loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social

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General Description of the Region

Hazus is a regional multi-hazard loss estimation model that was developed by the Federal Emergency Management Agency (FEMA) and the National Institute of Building Sciences (NIBS). The primary purpose of Hazus is to provide a methodology and software application to develop multi-hazard losses at a regional scale. These loss estimates would be used primarily by local, state and regional officials to plan and stimulate efforts to reduce risks from multi-hazards and to prepare for emergency response and recovery.

The flood loss estimates provided in this report were based on a region that included 4 county(ies) from the following state(s):

- Connecticut

Note:
Appendix A contains a complete listing of the counties contained in the region.

The geographical size of the region is 2,267 square miles and contains 30,649 census blocks. The region contains over 804 thousand households and has a total population of 2,120,734 people (2000 Census Bureau data). The distribution of population by State and County for the study region is provided in Appendix B.

There are an estimated 749,640 buildings in the region with a total building replacement value (excluding contents) of 211,921 million dollars (2006 dollars). Approximately 90.04% of the buildings (and 68.02% of the building value) are associated with residential housing.

Building Inventory

General Building Stock

Hazus estimates that there are 749,640 buildings in the region which have an aggregate total replacement value of 211,921 million (2006 dollars). Table 1 and Table 2 present the relative distribution of the value with respect to the general occupancies by Study Region and Scenario respectively. Appendix B provides a general distribution of the building value by State and County.

Table 1
Building Exposure by Occupancy Type for the Study Region

Occupancy	Exposure ($1000)	Percent of Total
Residential	144,152,932	68.0%
Commercial	40,046,152	18.9%
Industrial	10,755,493	5.1%
Agricultural	826,474	0.4%
Religion	2,973,666	1.4%
Government	1,502,201	0.7%
Education	11,664,293	5.5%
Total	**211,921,211**	**100.00%**

Table 2
Building Exposure by Occupancy Type for the Scenario

Occupancy	Exposure ($1000)	Percent of Total
Residential	17,089,361	63.4%
Commercial	6,221,421	23.1%
Industrial	1,884,300	7.0%
Agricultural	76,950	0.3%
Religion	329,384	1.2%
Government	205,119	0.8%
Education	1,134,125	4.2%
Total	**26,940,660**	**100.00%**

Essential Facility Inventory

For essential facilities, there are 24 hospitals in the region with a total bed capacity of no beds.
There are 913 schools, 328 fire stations, 110 police stations and 91 emergency operation centers.

Flood Scenario Parameters

Hazus used the following set of information to define the flood parameters for the flood loss estimate provided in this report.

Study Region Name:	CT_HurrSandy_v21
Scenario Name:	CT_SandyFinalDG
Return Period Analyzed:	Mix0
Analysis Options Analyzed:	No What-Ifs

Building Damage

General Building Stock Damage

Hazus estimates that about 7,743 buildings will be at least moderately damaged. This is over 48% of the total number of buildings in the scenario. There are an estimated 283 buildings that will be completely destroyed. The definition of the 'damage states' is provided in Volume 1: Chapter 5.3 of the Hazus Flood Technical Manual. Table 3 below summarizes the expected damage by general occupancy for the buildings in the region. Table 4 summarizes the expected damage by general building type.

Table 3: Expected Building Damage by Occupancy

	1-10		11-20		21-30		31-40		41-50		Substantially	
Occupancy	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**
Agriculture	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Commercial	17	19.32	69	78.41	2	2.27	0	0.00	0	0.00	0	0.00
Education	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Government	0	0.00	2	100.00	0	0.00	0	0.00	0	0.00	0	0.00
Industrial	0	0.00	6	54.55	4	36.36	1	9.09	0	0.00	0	0.00
Religion	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Residential	0	0.00	1,165	15.21	2,990	39.04	1,874	24.47	1,347	17.59	283	3.69
Total	**17**		**1,242**		**2,996**		**1,875**		**1,347**		**283**	

Table 4: Expected Building Damage by Building Type

Building Type	1-10		11-20		21-30		31-40		41-50		Substantially	
	Count	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**
Concrete	0	0.00	6	100.00	0	0.00	0	0.00	0	0.00	0	0.00
ManufHousing	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	12	100.00
Masonry	2	1.20	25	14.97	68	40.72	36	21.56	35	20.96	1	0.60
Steel	10	16.95	44	74.58	4	6.78	1	1.69	0	0.00	0	0.00
Wood	1	0.01	1,162	15.52	2,911	38.89	1,835	24.52	1,306	17.45	270	3.61

Essential Facility Damage

Before the flood analyzed in this scenario, the region had 0 hospital beds available for use. On the day of the scenario flood event, the model estimates that 0 hospital beds are available in the region.

Table 5: Expected Damage to Essential Facilities

		# Facilities		
Classification	Total	At Least Moderate	At Least Substantial	Loss of Use
Fire Stations	328	6	0	6
Hospitals	24	0	0	0
Police Stations	110	2	0	2
Schools	913	5	0	4

If this report displays all zeros or is blank, two possibilities can explain this.

(1) None of your facilities were flooded. This can be checked by mapping the inventory data on the depth grid.

(2) The analysis was not run. This can be tested by checking the run box on the Analysis Menu and seeing if a message box asks you to replace the existing results.

Induced Flood Damage

Debris Generation

Hazus estimates the amount of debris that will be generated by the flood. The model breaks debris into three general categories: 1) Finishes (dry wall, insulation, etc.), 2) Structural (wood, brick, etc.) and 3) Foundations (concrete slab, concrete block, rebar, etc.). This distinction is made because of the different types of material handling equipment required to handle the debris.

The model estimates that a total of 246,133 tons of debris will be generated. Of the total amount, Finishes comprises 49% of the total, Structure comprises 31% of the total. If the debris tonnage is converted into an estimated number of truckloads, it will require 9,845 truckloads (@25 tons/truck) to remove the debris generated by the flood.

Social Impact

Shelter Requirements

Hazus estimates the number of households that are expected to be displaced from their homes due to the flood and the associated potential evacuation. Hazus also estimates those displaced people that will require accommodations in temporary public shelters. The model estimates 21,319 households will be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 52,155 people (out of a total population of 2,120,734) will seek temporary shelter in public shelters.

Economic Loss

The total economic loss estimated for the flood is 3,121.03 million dollars, which represents 11.58 % of the total replacement value of the scenario buildings.

Building-Related Losses

The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the flood. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the flood.

The total building-related losses were 3,101.86 million dollars. 1% of the estimated losses were related to the business interruption of the region. The residential occupancies made up 45.52% of the total loss. Table 6 below provides a summary of the losses associated with the building damage.

Table 6: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Building Loss						
	Building	855.31	290.17	110.28	30.33	1,286.08
	Content	563.54	743.63	271.16	180.14	1,758.46
	Inventory	0.00	15.57	40.07	1.68	57.32
	Subtotal	**1,418.85**	**1,049.36**	**421.50**	**212.15**	**3,101.86**
Business Interruption						
	Income	0.05	4.54	0.03	0.89	5.51
	Relocation	1.24	1.00	0.04	0.36	2.63
	Rental Income	0.31	0.66	0.00	0.01	0.98
	Wage	0.17	4.00	0.04	5.83	10.05
	Subtotal	**1.76**	**10.20**	**0.12**	**7.10**	**19.17**
ALL	**Total**	**1,420.60**	**1,059.56**	**421.62**	**219.25**	**3,121.03**

Appendix A: County Listing for the Region

Connecticut

- Fairfield
- Middlesex
- New Haven
- New London

Appendix B: Regional Population and Building Value Data

		Building Value (thousands of dollars)		
	Population	Residential	Non-Residential	Total
Connecticut				
Fairfield	882,567	62,553,857	29,462,157	92,016,014
Middlesex	155,071	11,586,940	4,850,971	16,437,911
New Haven	824,008	52,527,265	26,835,326	79,362,591
New London	259,088	17,484,870	6,619,825	24,104,695
Total	**2,120,734**	**144,152,932**	**67,768,279**	**211,921,211**
Total Study Region	**2,120,734**	**144,152,932**	**67,768,279**	**211,921,211**

Quick Assessment Report

May 23, 2013

Study Region : CT_HurrSandy_v21
Scenario : CT_SandyFinalDG
Return Period: Mix0
Analysis Option: 0

Regional Statistics

Area (Square Miles)	2,267
Number of Census Blocks	30,649
Number of Buildings	
Residential	674,998
Total	749,640
Number of People in the Region (x 1000)	2,121
Building Exposure ($ Millions)	
Residential	144,153
Total	211,921

Scenario Results

Shelter Requirements

Displaced Population (# Households)	21,319
Short Term Shelter (# People)	52,155

Economic Loss

Residential Property (Capital Stock) Losses ($ Millions)	1,419
Total Property (Capital Stock) Losses ($ Millions)	3,102
Business Interruptions (Income) Losses ($ Millions)	19

Hazus-MH: Flood Global Risk Report

Region Name: CTFrfldV4Old100Yr

Flood Scenario: RivCoast2013Yr100DG

Print Date: Monday, October 01, 2018

Disclaimer:
This version of Hazus utilizes 2010 Census Data.
Totals only reflect data for those census tracts/blocks included in the user's study region.

The estimates of social and economic impacts contained in this report were produced using Hazus loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific Flood. These results can be improved by using enhanced inventory data and flood hazard information.

Table of Contents

General Description of the Region

Hazus is a regional multi-hazard loss estimation model that was developed by the Federal Emergency Management Agency (FEMA) and the National Institute of Building Sciences (NIBS). The primary purpose of Hazus is to provide a methodology and software application to develop multi-hazard losses at a regional scale. These loss estimates would be used primarily by local, state and regional officials to plan and stimulate efforts to reduce risks from multi-hazards and to prepare for emergency response and recovery.

The flood loss estimates provided in this report were based on a region that included 1 county(ies) from the following state(s):

- Connecticut

Note:
Appendix A contains a complete listing of the counties contained in the region.

The geographical size of the region is 645 square miles and contains 14,441 census blocks. The region contains over 336 thousand households and has a total population of 916,829 people (2010 Census Bureau data). The distribution of population by State and County for the study region is provided in Appendix B.

There are an estimated 297,585 buildings in the region with a total building replacement value (excluding contents) of 131,402 million dollars (2010 dollars). Approximately 88.68% of the buildings (and 70.70% of the building value) are associated with residential housing.

Building Inventory

General Building Stock

Hazus estimates that there are 297,585 buildings in the region which have an aggregate total replacement value of 131,402 million (2014 dollars). Table 1 and Table 2 present the relative distribution of the value with respect to the general occupancies by Study Region and Scenario respectively. Appendix B provides a general distribution of the building value by State and County.

Table 1
Building Exposure by Occupancy Type for the Study Region

Occupancy	Exposure ($1000)	Percent of Total
Residential	92,896,155	70.7%
Commercial	27,303,411	20.8%
Industrial	6,512,733	5.0%
Agricultural	411,270	0.3%
Religion	1,929,355	1.5%
Government	658,820	0.5%
Education	1,690,723	1.3%
Total	**131,402,467**	**100.0%**

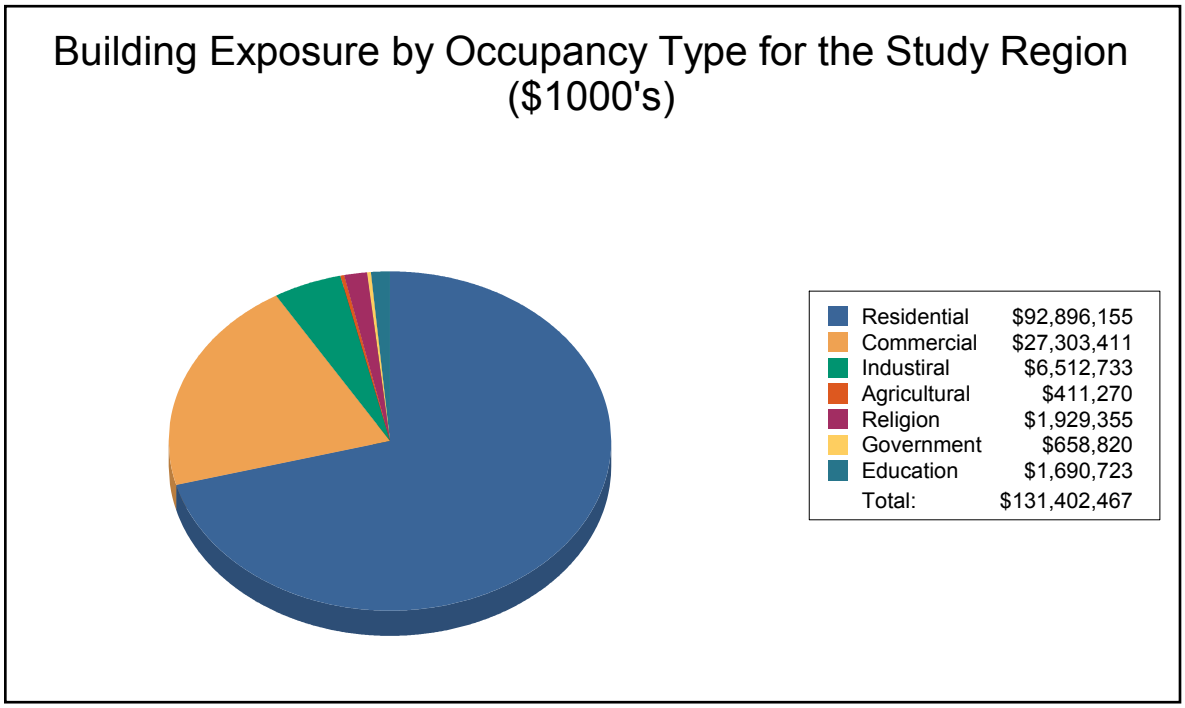
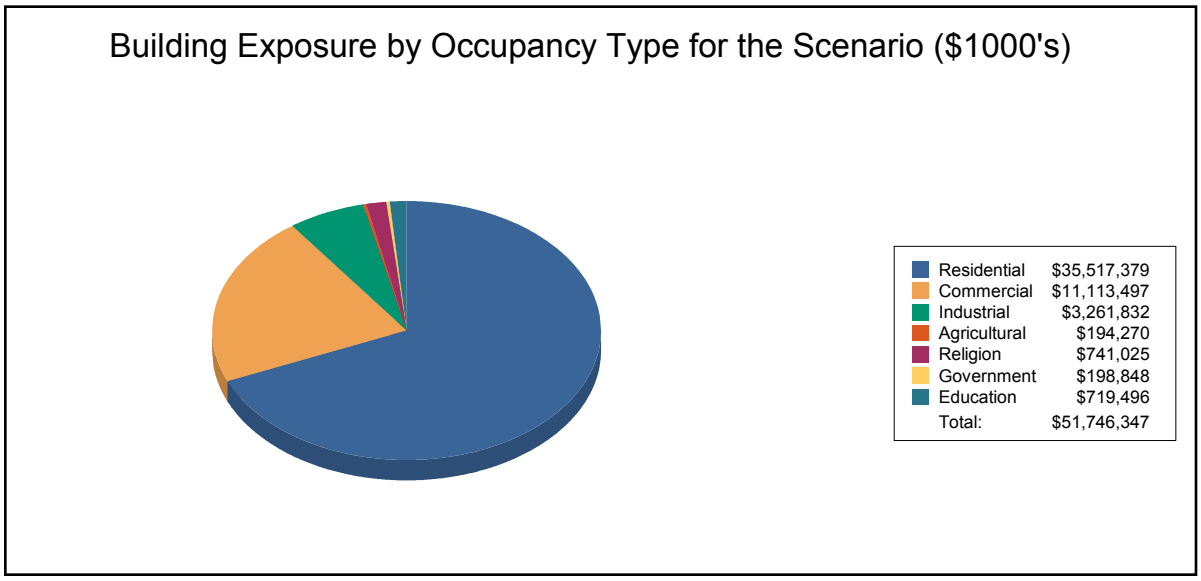


Table 2
Building Exposure by Occupancy Type for the Scenario

Occupancy	Exposure ($1000)	Percent of Total
Residential	35,517,379	68.6%
Commercial	11,113,497	21.5%
Industrial	3,261,832	6.3%
Agricultural	194,270	0.4%
Religion	741,025	1.4%
Government	198,848	0.4%
Education	719,496	1.4%
Total	**51,746,347**	**100.0%**



Essential Facility Inventory

For essential facilities, there are 8 hospitals in the region with a total bed capacity of 1,794 beds. There are 354 schools, 62 fire stations, 37 police stations and 11 emergency operation center.

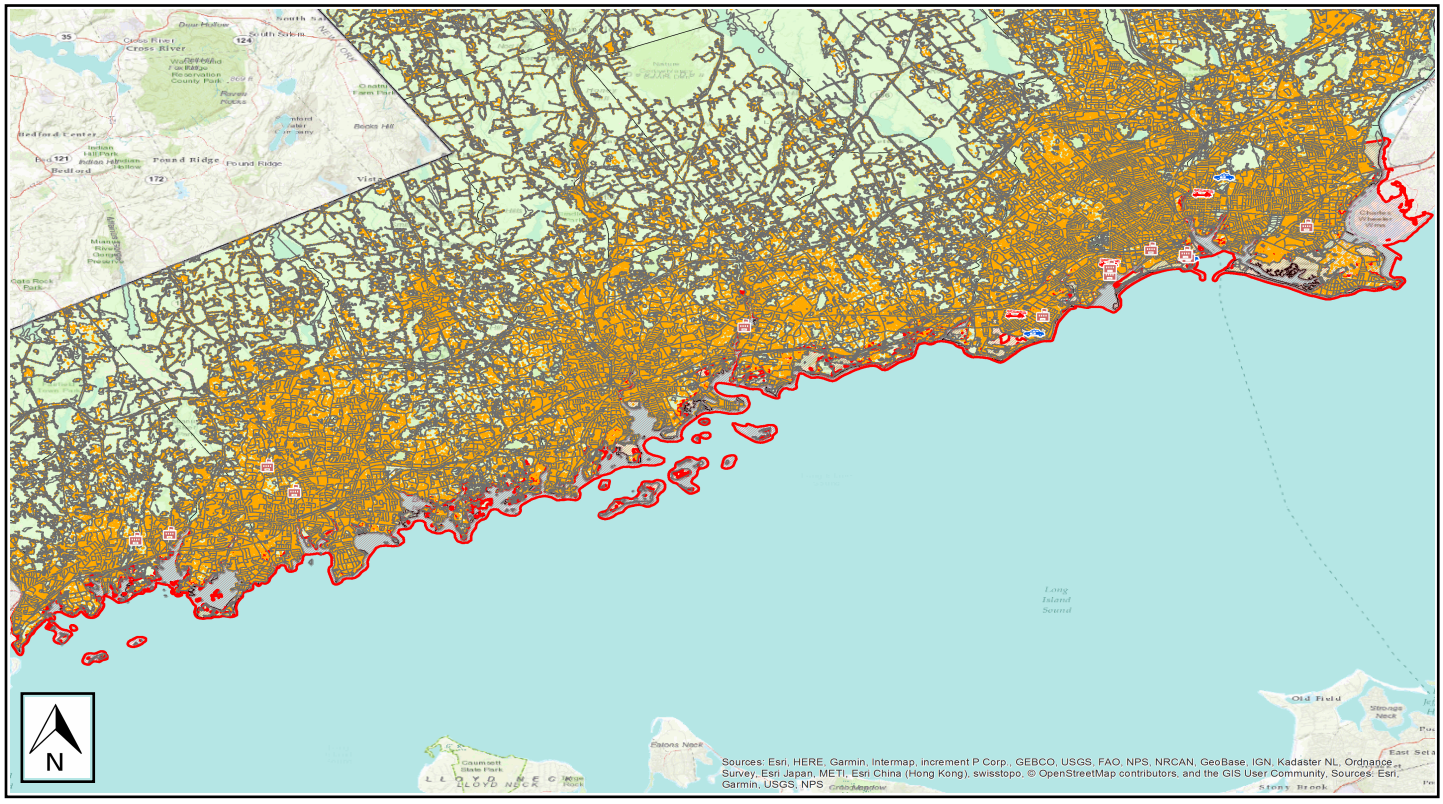
Flood Scenario Parameters

Hazus used the following set of information to define the flood parameters for the flood loss estimate provided in this report.

Study Region Name:	CTFrfldV4Old100Yr
Scenario Name:	RivCoast2013Yr100DG
Return Period Analyzed:	100
Analysis Options Analyzed:	No What-Ifs

Study Region Overview Map

Illustrating scenario flood extent, as well as exposed essential facilities and total exposure



Building Damage

General Building Stock Damage

Hazus estimates that about 5,824 buildings will be at least moderately damaged. This is over 60% of the total number of buildings in the scenario. There are an estimated 446 buildings that will be completely destroyed. The definition of the 'damage states' is provided in Volume 1: Chapter 5 of the Hazus Flood Technical Manual. Table 3 below summarizes the expected damage by general occupancy for the buildings in the region. Table 4 summarizes the expected damage by general building type.

Total Economic Loss (1 dot = $300K) Overview Map

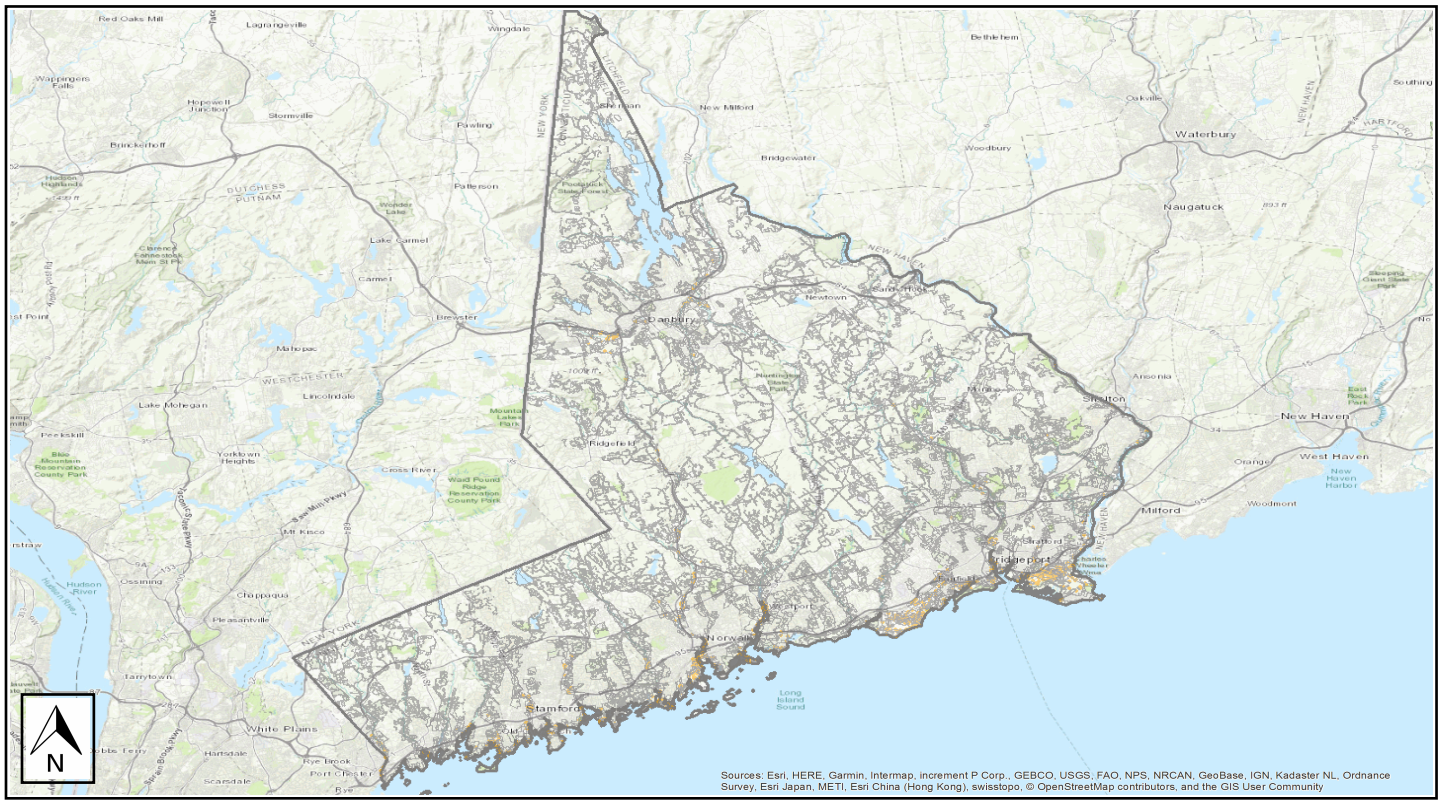


Table 3: Expected Building Damage by Occupancy

	1-10		11-20		21-30		31-40		41-50		Substantially	
Occupancy	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**
Agriculture	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Commercial	22	13.25	134	80.72	10	6.02	0	0.00	0	0.00	0	0.00
Education	2	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Government	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Industrial	2	11.76	9	52.94	5	29.41	1	5.88	0	0.00	0	0.00
Religion	0	0.00	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00
Residential	1,072	15.91	3,005	44.61	1,571	23.32	458	6.80	184	2.73	446	6.62
Total	**1,098**		**3,149**		**1,586**		**459**		**184**		**446**	

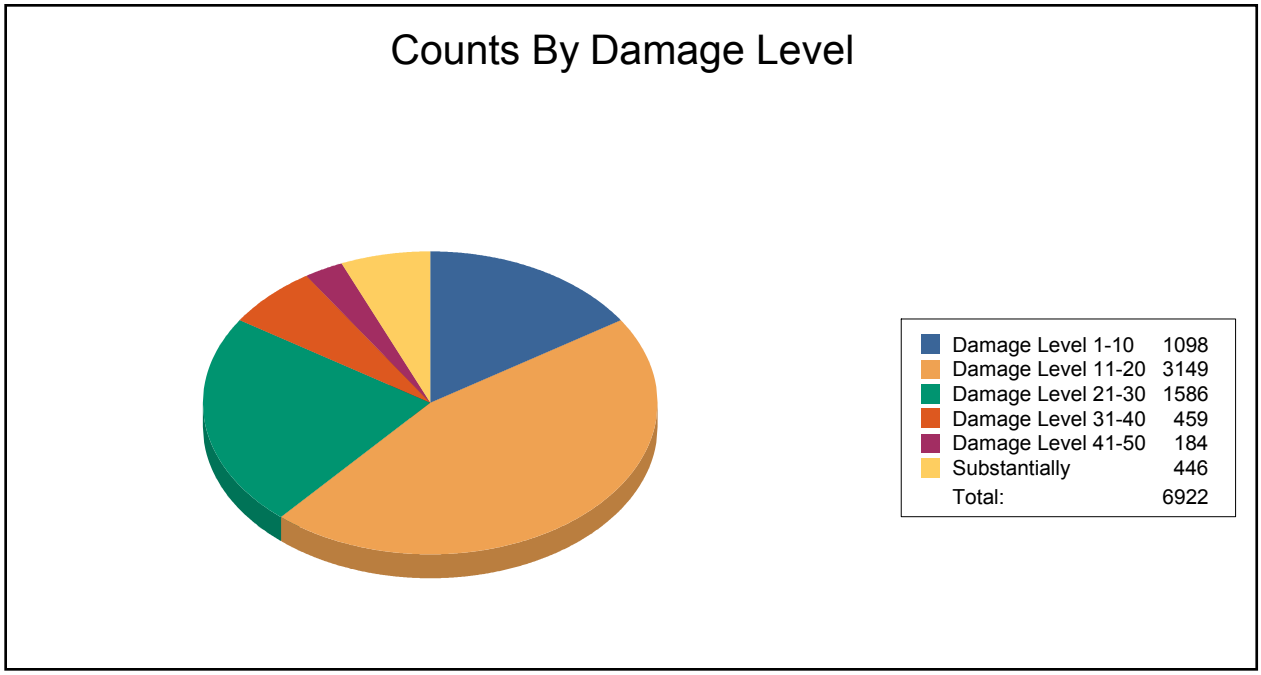


Table 4: Expected Building Damage by Building Type

Building Type	1-10		11-20		21-30		31-40		41-50		Substantially	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Concrete	0	0	9	100	0	0	0	0	0	0	0	0
ManufHousing	0	0	0	0	0	0	0	0	0	0	0	0
Masonry	17	8	137	66	42	20	5	2	3	1	3	1
Steel	15	15	75	75	9	9	1	1	0	0	0	0
Wood	1,057	16	2,912	44	1,532	23	452	7	181	3	443	7

Essential Facility Damage

Before the flood analyzed in this scenario, the region had 1,794 hospital beds available for use. On the day of the scenario flood event, the model estimates that 1,794 hospital beds are available in the region.

Table 5: Expected Damage to Essential Facilities

		# Facilities		
Classification	Total	At Least Moderate	At Least Substantial	Loss of Use
Fire Stations	62	3	0	3
Hospitals	8	0	0	0
Police Stations	37	2	0	2
Schools	354	8	1	10

If this report displays all zeros or is blank, two possibilities can explain this.

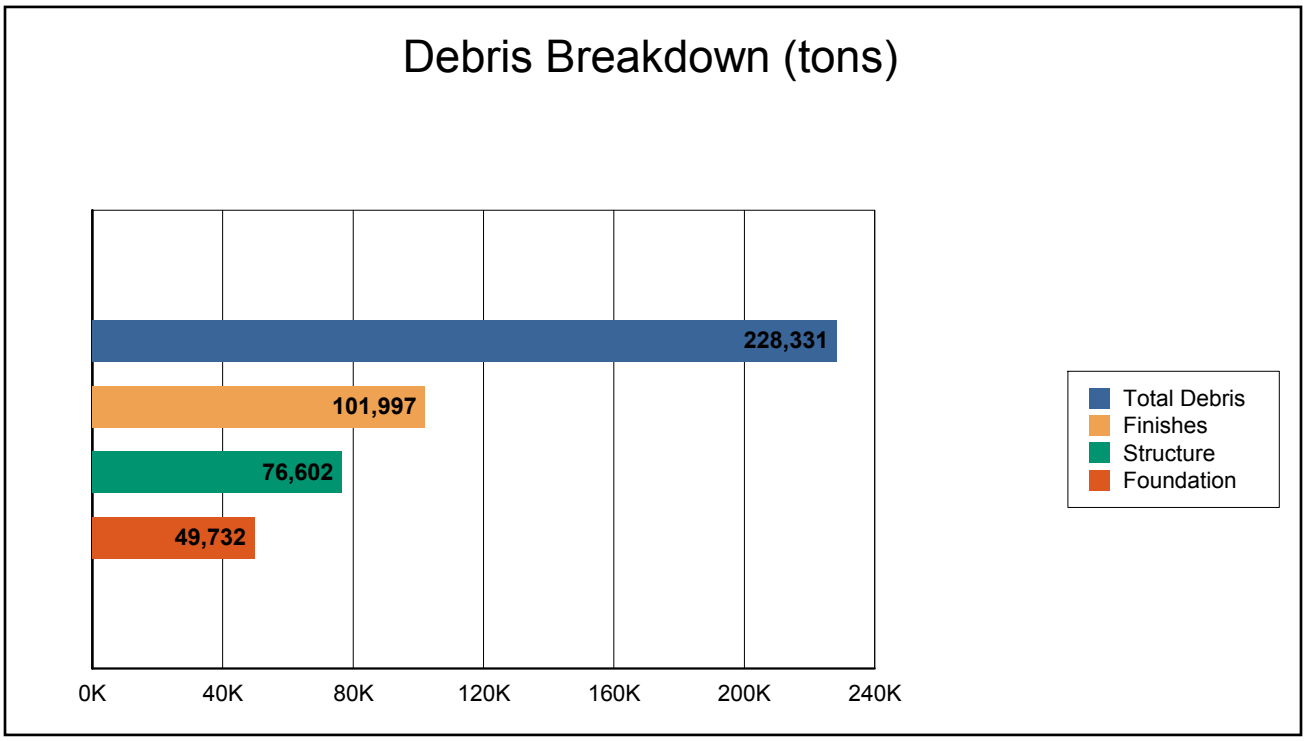
(1) None of your facilities were flooded. This can be checked by mapping the inventory data on the depth grid.

(2) The analysis was not run. This can be tested by checking the run box on the Analysis Menu and seeing if a message box asks you to replace the existing results.

Induced Flood Damage

Debris Generation

Hazus estimates the amount of debris that will be generated by the flood. The model breaks debris into three general categories: 1) Finishes (dry wall, insulation, etc.), 2) Structural (wood, brick, etc.) and 3) Foundations (concrete slab, concrete block, rebar, etc.). This distinction is made because of the different types of material handling equipment required to handle the debris.

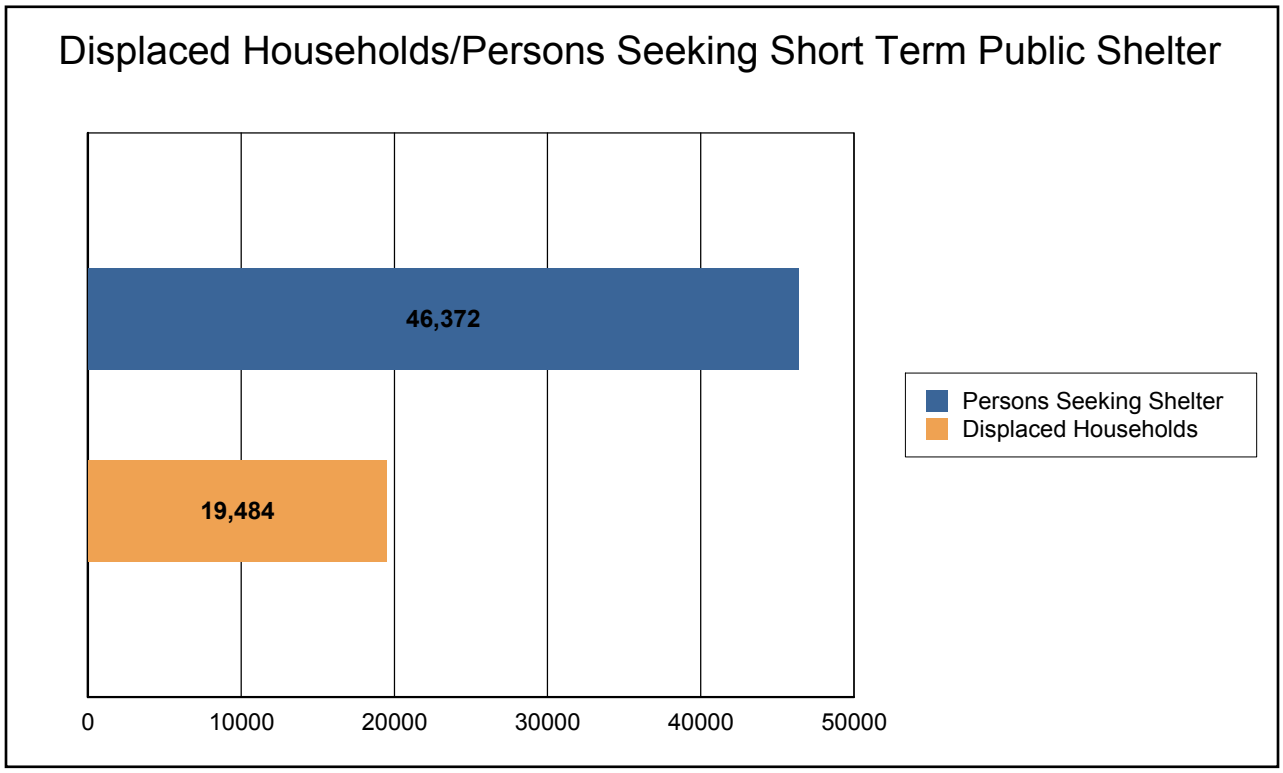


The model estimates that a total of 228,331 tons of debris will be generated. Of the total amount, Finishes comprises 45% of the total, Structure comprises 34% of the total. If the debris tonnage is converted into an estimated number of truckloads, it will require 9,133 truckloads (@25 tons/truck) to remove the debris generated by the flood.

Social Impact

Shelter Requirements

Hazus estimates the number of households that are expected to be displaced from their homes due to the flood and the associated potential evacuation. Hazus also estimates those displaced people that will require accommodations in temporary public shelters. The model estimates 19,484 households will be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 46,372 people (out of a total population of 916,829) will seek temporary shelter in public shelters.



Economic Loss

The total economic loss estimated for the flood is 4,274.17 million dollars, which represents 8.26 % of the total replacement value of the scenario buildings.

Building-Related Losses

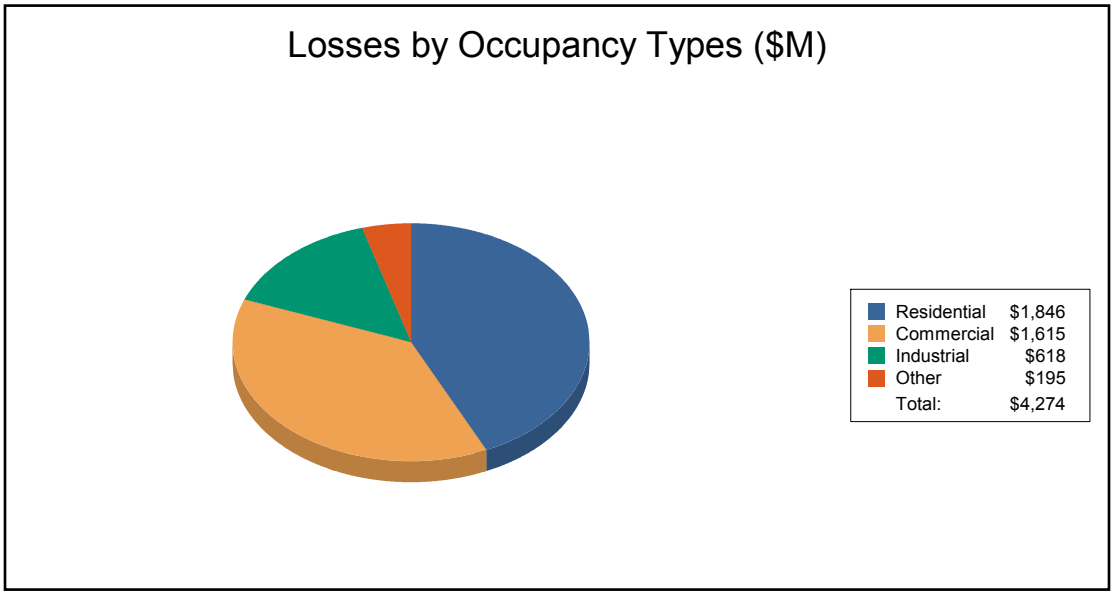
The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the flood. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the flood.

The total building-related losses were 4,256.15 million dollars. 0% of the estimated losses were related to the business interruption of the region. The residential occupancies made up 43.19% of the total loss. Table 6 below provides a summary of the losses associated with the building damage.

Table 6: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Building Loss						
	Building	1,081.38	450.39	164.76	30.85	1,727.38
	Content	762.40	1,131.00	405.38	159.52	2,458.30
	Inventory	0.00	20.60	47.80	2.08	70.47
	Subtotal	**1,843.77**	**1,601.99**	**617.93**	**192.45**	**4,256.15**
Business Interruption						
	Income	0.04	5.72	0.03	0.26	6.04
	Relocation	1.51	1.17	0.03	0.11	2.82
	Rental Income	0.46	0.74	0.00	0.01	1.21
	Wage	0.12	5.24	0.04	2.54	7.95
	Subtotal	**2.13**	**12.88**	**0.10**	**2.91**	**18.02**
ALL	**Total**	**1,845.90**	**1,614.87**	**618.04**	**195.36**	**4,274.17**



Appendix A: County Listing for the Region

Connecticut

- Fairfield

Appendix B: Regional Population and Building Value Data

	Population	Building Value (thousands of dollars)		
		Residential	Non-Residential	Total
Connecticut				
Fairfield	916,829	92,896,155	38,506,312	131,402,467
Total	**916,829**	**92,896,155**	**38,506,312**	**131,402,467**
Total Study Region	**916,829**	**92,896,155**	**38,506,312**	**131,402,467**

Hazus-MH: Flood Global Risk Report

Region Name: HrtfrdCTv4_100yrDG

Flood Scenario: InterpShape100yrDG

Print Date: Monday, October 01, 2018

Disclaimer:
This version of Hazus utilizes 2010 Census Data.
Totals only reflect data for those census tracts/blocks included in the user's study region.

The estimates of social and economic impacts contained in this report were produced using Hazus loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific Flood. These results can be improved by using enhanced inventory data and flood hazard information.

FEMA

RiskMAP
Increasing Resilience Together

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General Description of the Region

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The flood loss estimates provided in this report were based on a region that included 1 county(ies) from the following state(s):

- Connecticut

Note:
Appendix A contains a complete listing of the counties contained in the region.

The geographical size of the region is 751 square miles and contains 14,111 census blocks. The region contains over 351 thousand households and has a total population of 894,014 people (2010 Census Bureau data). The distribution of population by State and County for the study region is provided in Appendix B.

There are an estimated 291,318 buildings in the region with a total building replacement value (excluding contents) of 120,075 million dollars (2010 dollars). Approximately 89.99% of the buildings (and 70.68% of the building value) are associated with residential housing.

Building Inventory

General Building Stock

Hazus estimates that there are 291,318 buildings in the region which have an aggregate total replacement value of 120,075 million (2014 dollars). Table 1 and Table 2 present the relative distribution of the value with respect to the general occupancies by Study Region and Scenario respectively. Appendix B provides a general distribution of the building value by State and County.

Table 1
Building Exposure by Occupancy Type for the Study Region

Occupancy	Exposure ($1000)	Percent of Total
Residential	84,874,742	70.7%
Commercial	23,971,060	20.0%
Industrial	6,495,523	5.4%
Agricultural	336,949	0.3%
Religion	1,748,402	1.5%
Government	940,267	0.8%
Education	1,707,949	1.4%
Total	**120,074,892**	**100.0%**

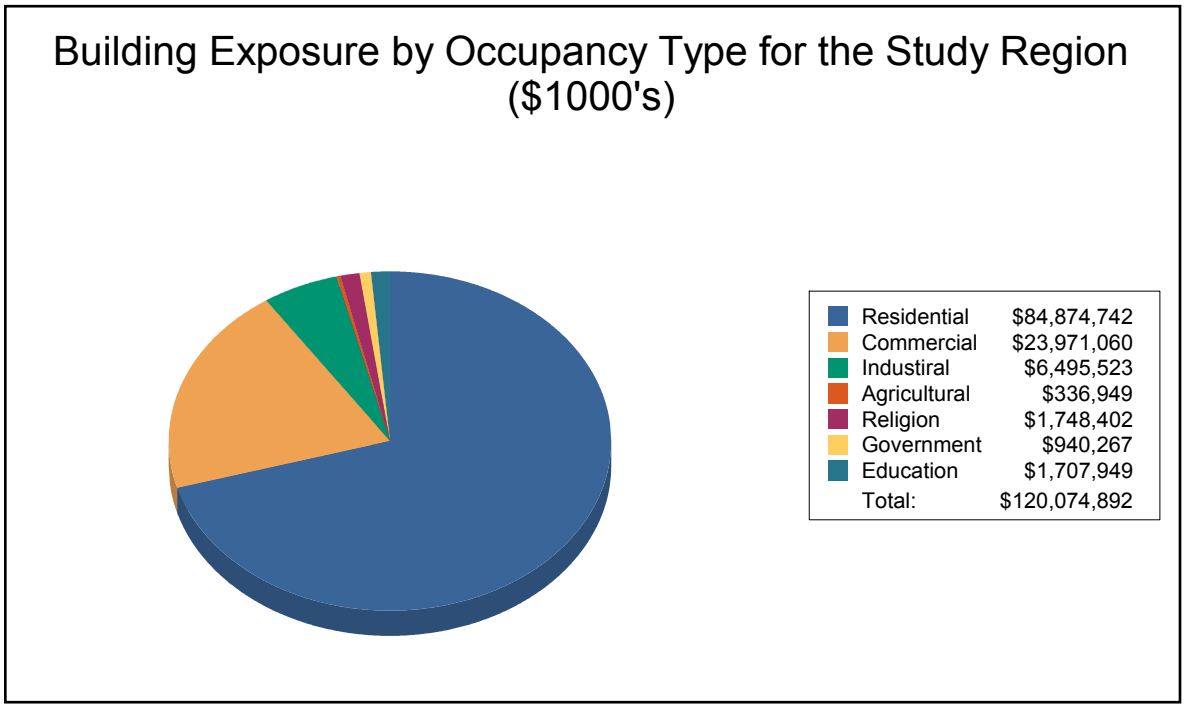
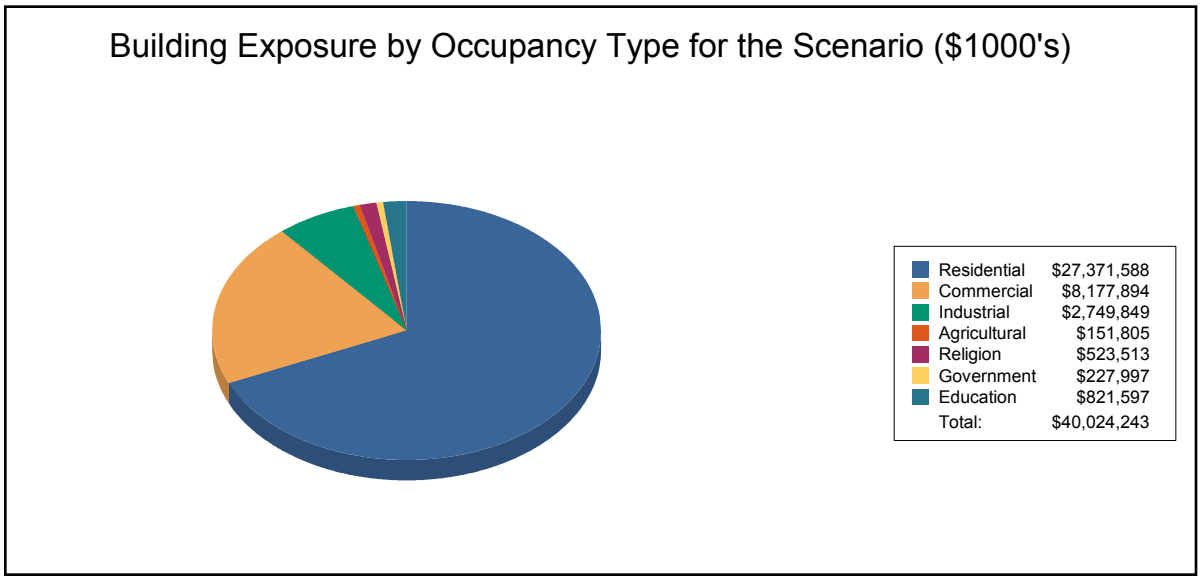


Table 2
Building Exposure by Occupancy Type for the Scenario

Occupancy	Exposure ($1000)	Percent of Total
Residential	27,371,588	68.4%
Commercial	8,177,894	20.4%
Industrial	2,749,849	6.9%
Agricultural	151,805	0.4%
Religion	523,513	1.3%
Government	227,997	0.6%
Education	821,597	2.1%
Total	**40,024,243**	**100.0%**



Essential Facility Inventory

For essential facilities, there are 12 hospitals in the region with a total bed capacity of 3,036 beds. There are 362 schools, 51 fire stations, 37 police stations and 8 emergency operation center.

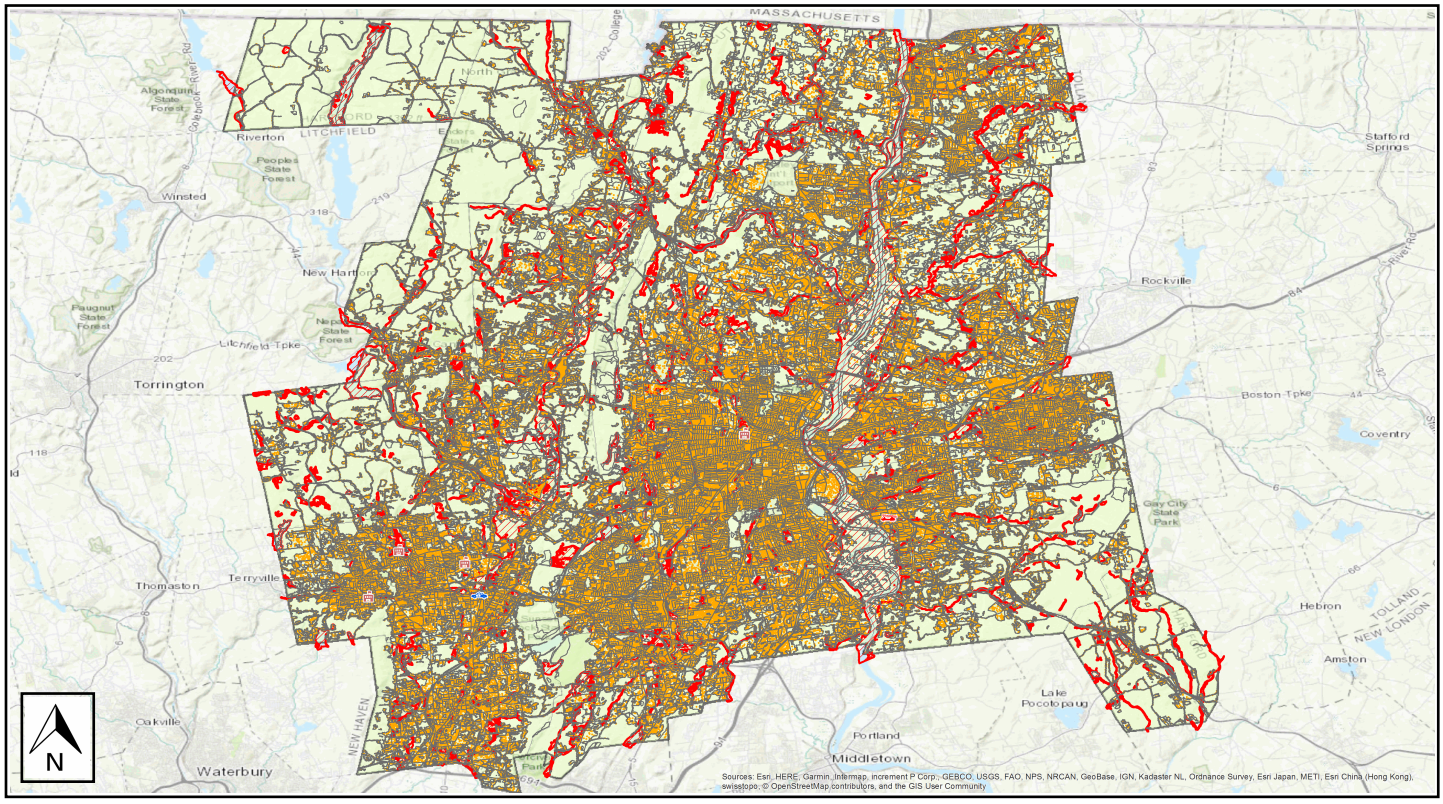
Flood Scenario Parameters

Hazus used the following set of information to define the flood parameters for the flood loss estimate provided in this report.

Study Region Name:	HrtfrdCTv4_100yrDG
Scenario Name:	InterpShape100yrDG
Return Period Analyzed:	100
Analysis Options Analyzed:	No What-Ifs

Study Region Overview Map

Illustrating scenario flood extent, as well as exposed essential facilities and total exposure



Building Damage

General Building Stock Damage

Hazus estimates that about 1,701 buildings will be at least moderately damaged. This is over 72% of the total number of buildings in the scenario. There are an estimated 382 buildings that will be completely destroyed. The definition of the 'damage states' is provided in Volume 1: Chapter 5 of the Hazus Flood Technical Manual. Table 3 below summarizes the expected damage by general occupancy for the buildings in the region. Table 4 summarizes the expected damage by general building type.

Total Economic Loss (1 dot = $300K) Overview Map

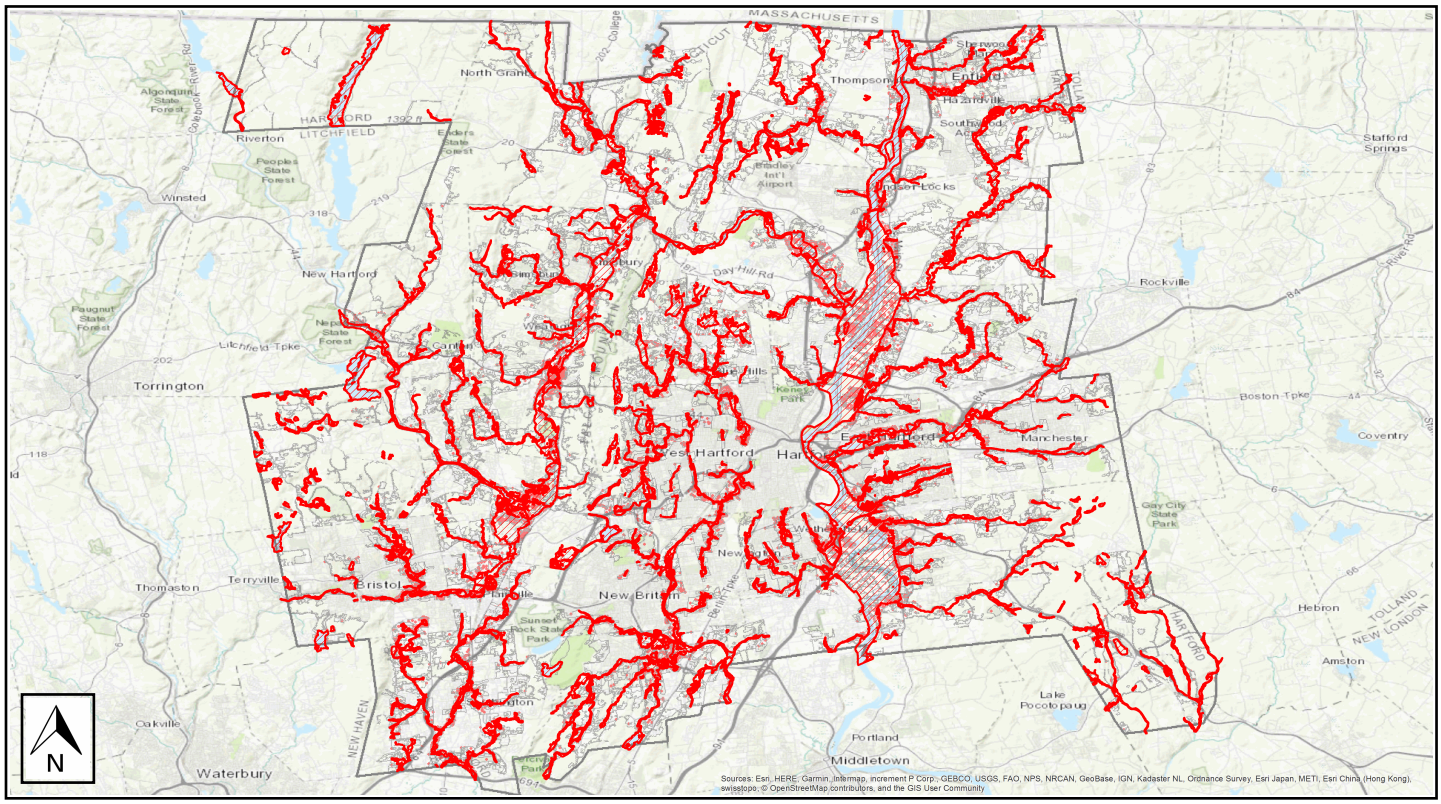


Table 3: Expected Building Damage by Occupancy

	1-10		11-20		21-30		31-40		41-50		Substantially	
Occupancy	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**
Agriculture	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Commercial	2	22.22	7	77.78	0	0.00	0	0.00	0	0.00	0	0.00
Education	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Government	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Industrial	0	0.00	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00
Religion	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Residential	1,090	39.17	771	27.70	293	10.53	142	5.10	105	3.77	382	13.73
Total	**1,092**		**779**		**293**		**142**		**105**		**382**	

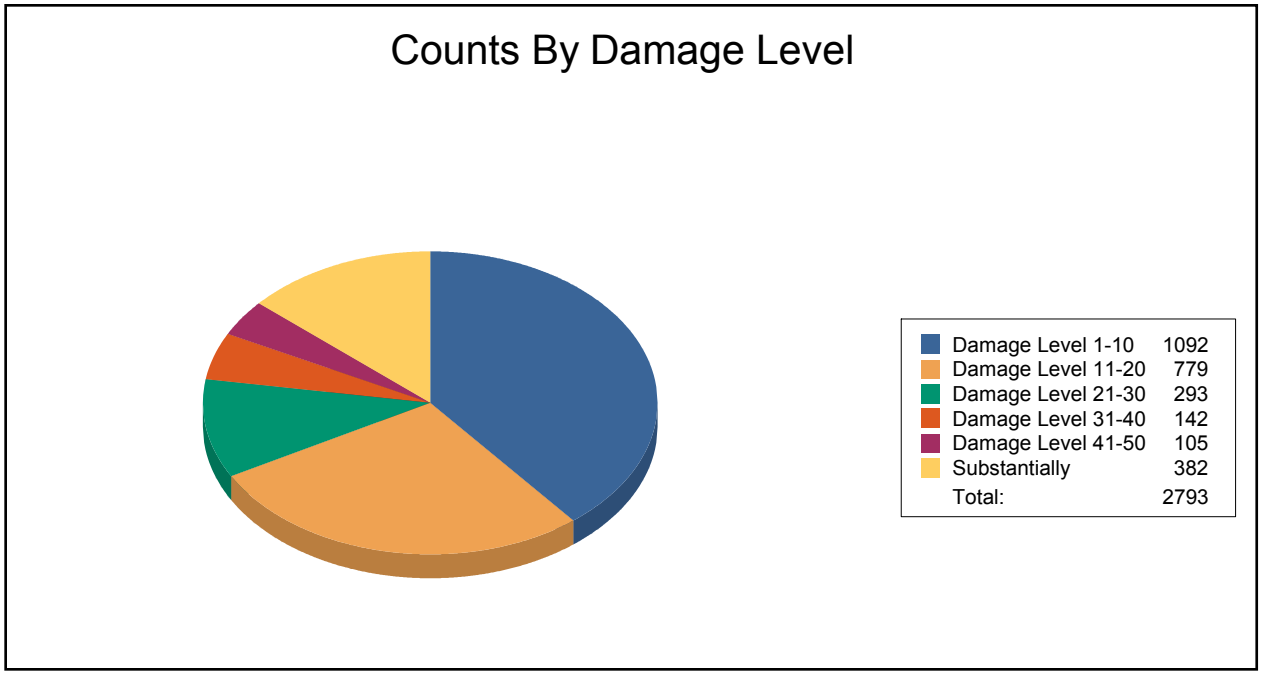


Table 4: Expected Building Damage by Building Type

Building Type	1-10		11-20		21-30		31-40		41-50		Substantially	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Concrete	0	0	0	0	0	0	0	0	0	0	0	0
ManufHousing	0	0	0	0	0	0	0	0	0	0	75	100
Masonry	5	42	4	33	1	8	0	0	0	0	2	17
Steel	2	33	4	67	0	0	0	0	0	0	0	0
Wood	1,082	40	766	28	292	11	142	5	105	4	304	11

Essential Facility Damage

Before the flood analyzed in this scenario, the region had 3,036 hospital beds available for use. On the day of the scenario flood event, the model estimates that 3,036 hospital beds are available in the region.

Table 5: Expected Damage to Essential Facilities

		# Facilities		
Classification	Total	At Least Moderate	At Least Substantial	Loss of Use
Fire Stations	51	1	0	1
Hospitals	12	0	0	0
Police Stations	37	1	0	1
Schools	362	4	0	3

If this report displays all zeros or is blank, two possibilities can explain this.

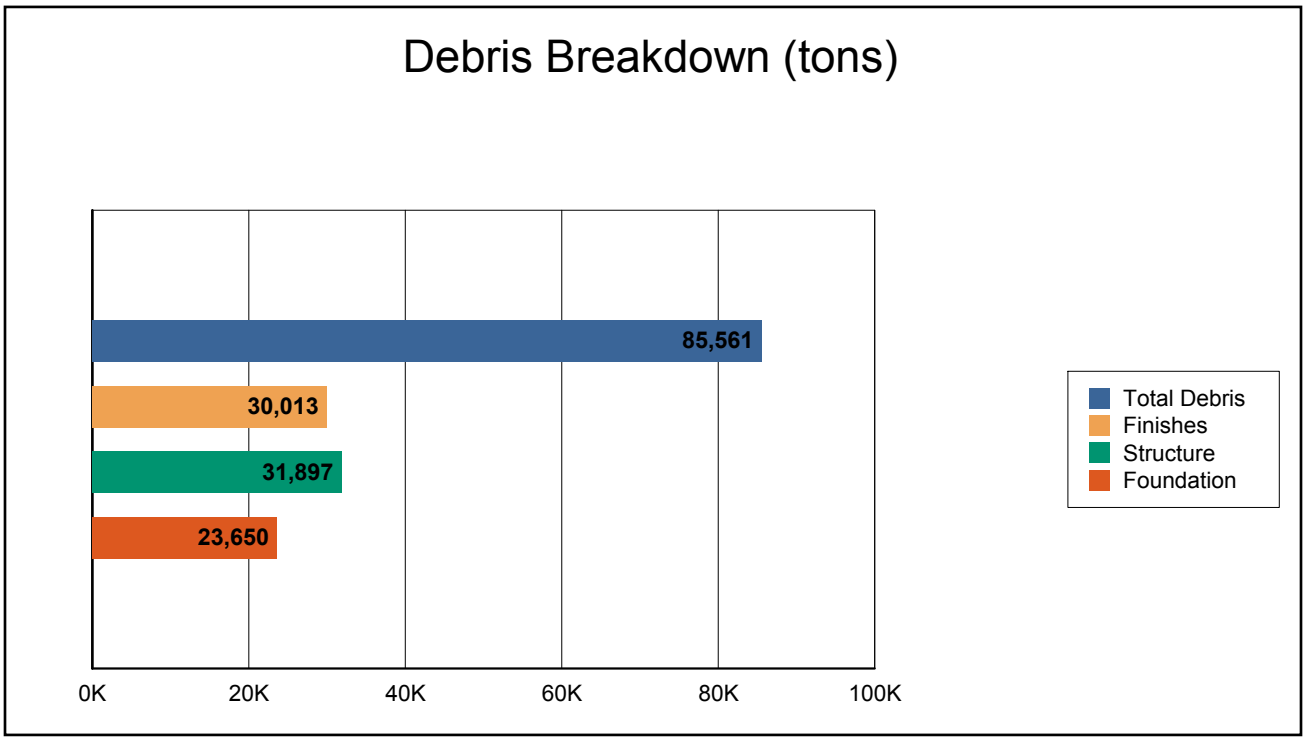
(1) None of your facilities were flooded. This can be checked by mapping the inventory data on the depth grid.

(2) The analysis was not run. This can be tested by checking the run box on the Analysis Menu and seeing if a message box asks you to replace the existing results.

Induced Flood Damage

Debris Generation

Hazus estimates the amount of debris that will be generated by the flood. The model breaks debris into three general categories: 1) Finishes (dry wall, insulation, etc.), 2) Structural (wood, brick, etc.) and 3) Foundations (concrete slab, concrete block, rebar, etc.). This distinction is made because of the different types of material handling equipment required to handle the debris.

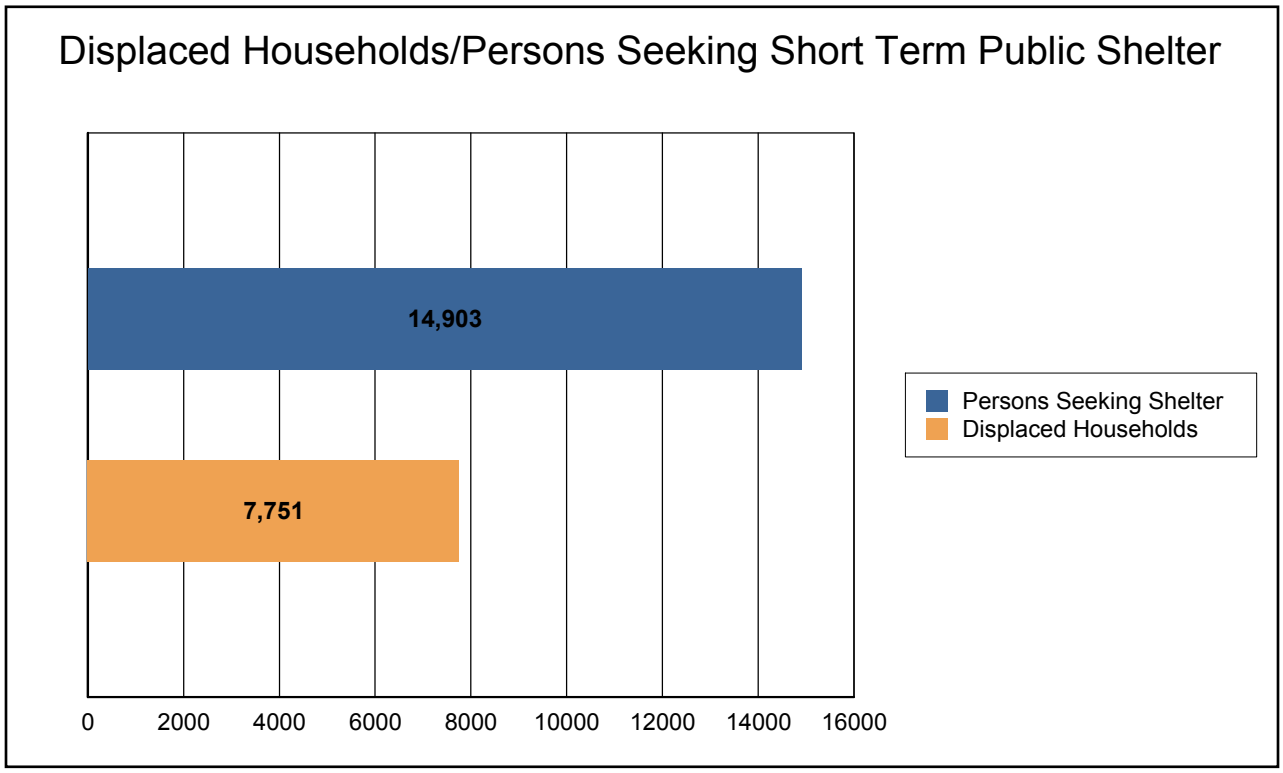


The model estimates that a total of 85,561 tons of debris will be generated. Of the total amount, Finishes comprises 35% of the total, Structure comprises 37% of the total. If the debris tonnage is converted into an estimated number of truckloads, it will require 3,422 truckloads (@25 tons/truck) to remove the debris generated by the flood.

Social Impact

Shelter Requirements

Hazus estimates the number of households that are expected to be displaced from their homes due to the flood and the associated potential evacuation. Hazus also estimates those displaced people that will require accommodations in temporary public shelters. The model estimates 7,751 households will be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 14,903 people (out of a total population of 894,014) will seek temporary shelter in public shelters.



Economic Loss

The total economic loss estimated for the flood is 1,447.30 million dollars, which represents 3.62 % of the total replacement value of the scenario buildings.

Building-Related Losses

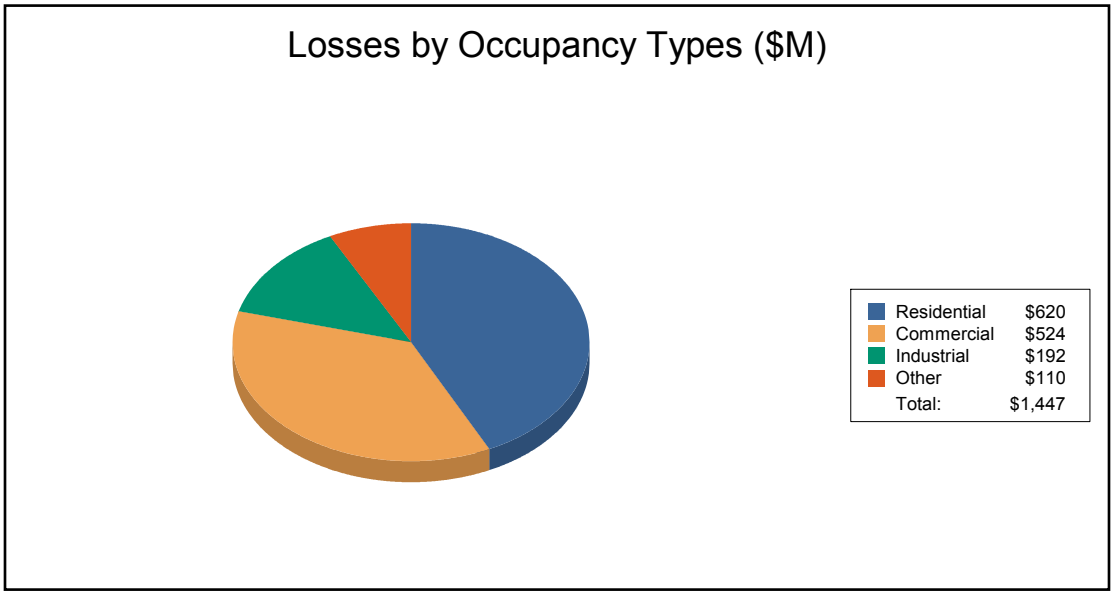
The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the flood. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the flood.

The total building-related losses were 1,441.12 million dollars. 0% of the estimated losses were related to the business interruption of the region. The residential occupancies made up 42.86% of the total loss. Table 6 below provides a summary of the losses associated with the building damage.

Table 6: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Building Loss						
	Building	411.06	151.14	52.96	20.60	635.75
	Content	208.67	363.44	122.85	86.90	781.85
	Inventory	0.00	5.90	16.64	0.98	23.52
	Subtotal	**619.73**	**520.48**	**192.44**	**108.47**	**1,441.12**
Business Interruption						
	Income	0.02	1.70	0.02	0.17	1.90
	Relocation	0.42	0.26	0.01	0.06	0.74
	Rental Income	0.10	0.13	0.00	0.01	0.24
	Wage	0.07	1.72	0.01	1.50	3.30
	Subtotal	**0.61**	**3.81**	**0.04**	**1.73**	**6.18**
ALL	**Total**	**620.34**	**524.29**	**192.48**	**110.20**	**1,447.30**



Appendix A: County Listing for the Region

Connecticut

- Hartford

Appendix B: Regional Population and Building Value Data

	Population	Building Value (thousands of dollars)		
		Residential	Non-Residential	Total
Connecticut				
Hartford	894,014	84,874,742	35,200,150	120,074,892
Total	**894,014**	**84,874,742**	**35,200,150**	**120,074,892**
Total Study Region	**894,014**	**84,874,742**	**35,200,150**	**120,074,892**

Hazus-MH: Flood Global Risk Report

Region Name: CTLtchfldV4m30sm10

Flood Scenario: MultiFreq10sqmi

Print Date: Monday, October 01, 2018

Disclaimer:
This version of Hazus utilizes 2010 Census Data.
Totals only reflect data for those census tracts/blocks included in the user's study region.

The estimates of social and economic impacts contained in this report were produced using Hazus loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific Flood. These results can be improved by using enhanced inventory data and flood hazard information.

Table of Contents

General Description of the Region

Hazus is a regional multi-hazard loss estimation model that was developed by the Federal Emergency Management Agency (FEMA) and the National Institute of Building Sciences (NIBS). The primary purpose of Hazus is to provide a methodology and software application to develop multi-hazard losses at a regional scale. These loss estimates would be used primarily by local, state and regional officials to plan and stimulate efforts to reduce risks from multi-hazards and to prepare for emergency response and recovery.

The flood loss estimates provided in this report were based on a region that included 1 county(ies) from the following state(s):

- Connecticut

Note:
Appendix A contains a complete listing of the counties contained in the region.

The geographical size of the region is 945 square miles and contains 6,638 census blocks. The region contains over 77 thousand households and has a total population of 189,927 people (2010 Census Bureau data). The distribution of population by State and County for the study region is provided in Appendix B.

There are an estimated 82,809 buildings in the region with a total building replacement value (excluding contents) of 27,713 million dollars (2010 dollars). Approximately 89.59% of the buildings (and 73.86% of the building value) are associated with residential housing.

Building Inventory

General Building Stock

Hazus estimates that there are 82,809 buildings in the region which have an aggregate total replacement value of 27,713 million (2014 dollars). Table 1 and Table 2 present the relative distribution of the value with respect to the general occupancies by Study Region and Scenario respectively. Appendix B provides a general distribution of the building value by State and County.

Table 1
Building Exposure by Occupancy Type for the Study Region

Occupancy	Exposure ($1000)	Percent of Total
Residential	20,467,819	73.9%
Commercial	3,992,561	14.4%
Industrial	2,103,014	7.6%
Agricultural	141,980	0.5%
Religion	367,249	1.3%
Government	139,110	0.5%
Education	500,832	1.8%
Total	**27,712,565**	**100.0%**

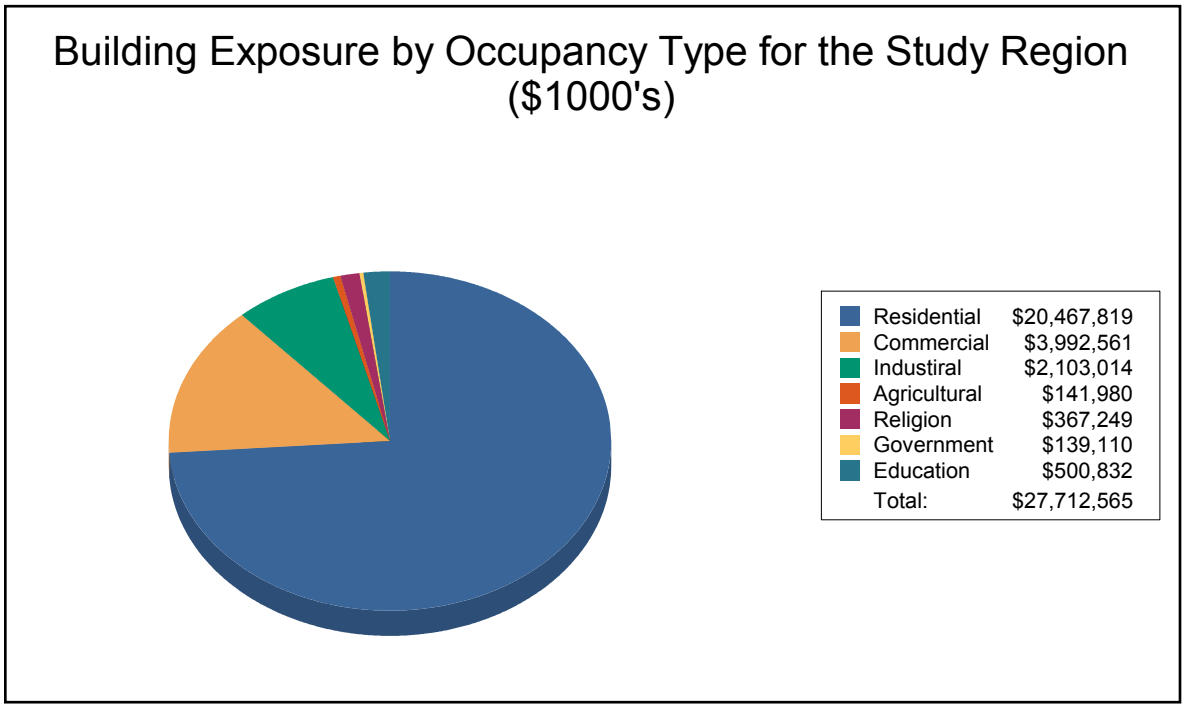
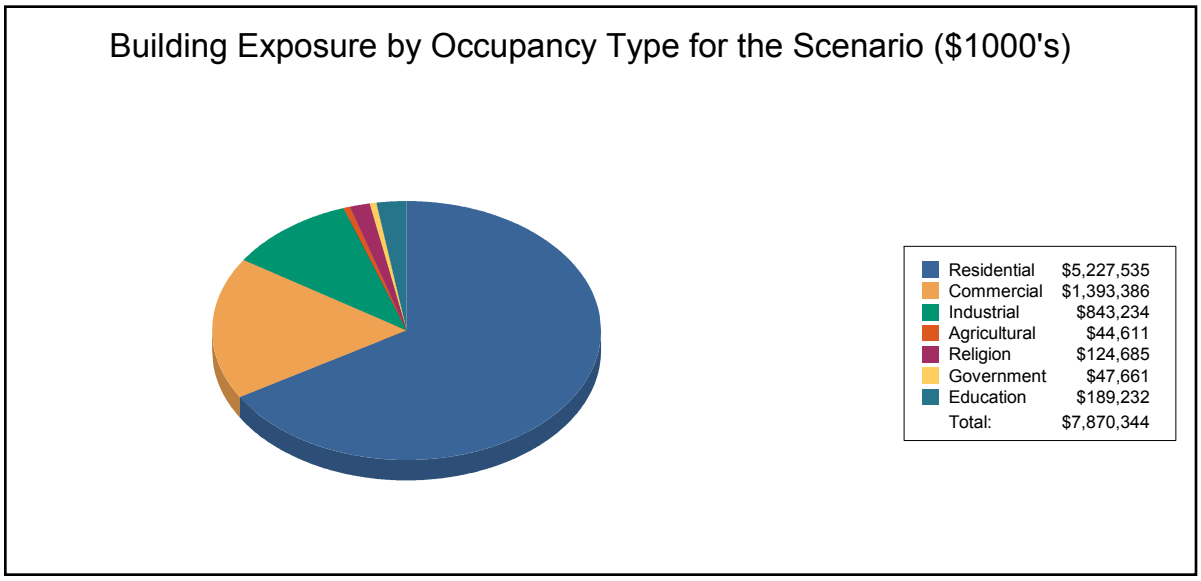


Table 2
Building Exposure by Occupancy Type for the Scenario

Occupancy	Exposure ($1000)	Percent of Total
Residential	5,227,535	66.4%
Commercial	1,393,386	17.7%
Industrial	843,234	10.7%
Agricultural	44,611	0.6%
Religion	124,685	1.6%
Government	47,661	0.6%
Education	189,232	2.4%
Total	**7,870,344**	**100.0%**



Essential Facility Inventory

For essential facilities, there are 4 hospitals in the region with a total bed capacity of 285 beds.
There are 104 schools, 32 fire stations, 13 police stations and 4 emergency operation center.

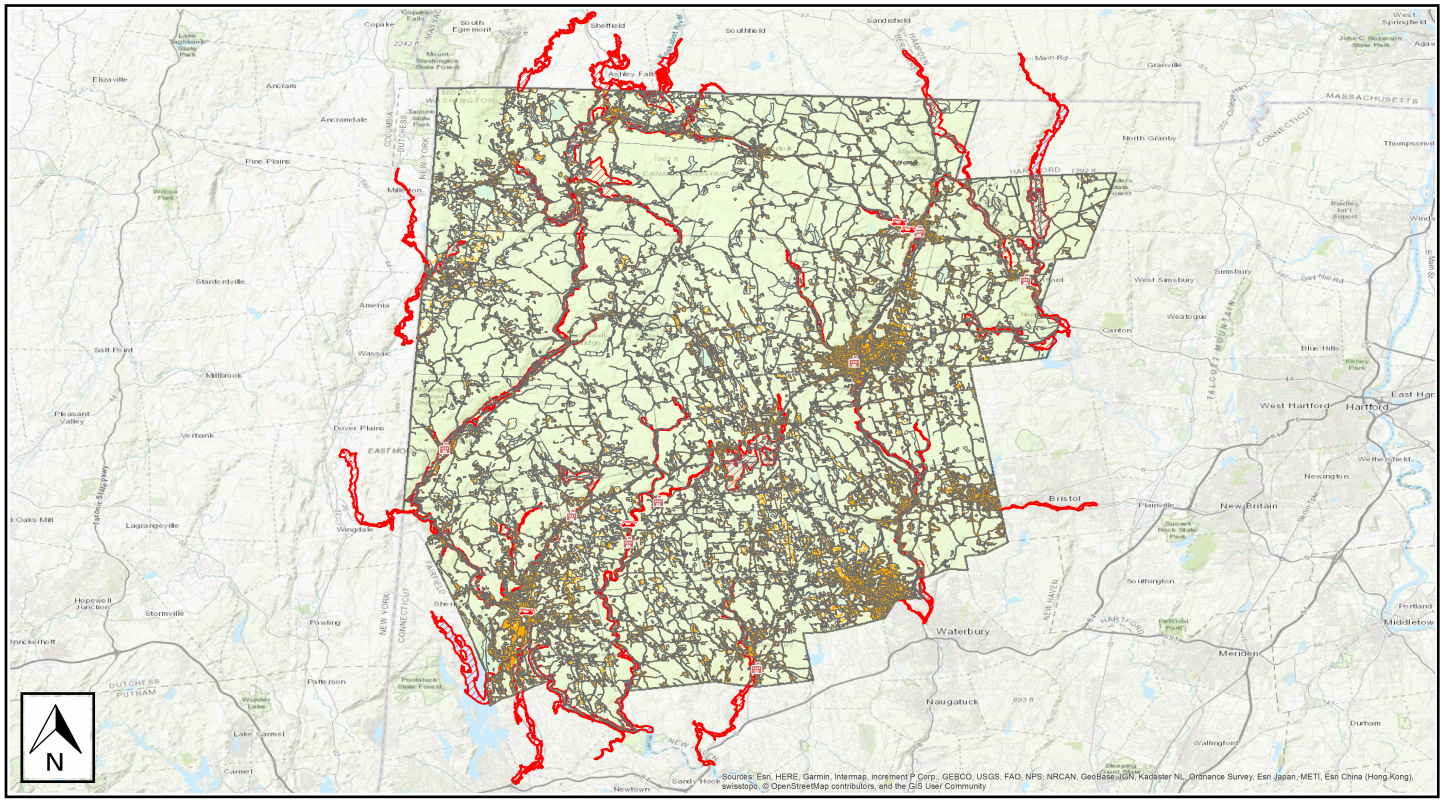
Flood Scenario Parameters

Hazus used the following set of information to define the flood parameters for the flood loss estimate provided in this report.

Study Region Name:	CTLtchfldV4m30sm10
Scenario Name:	MultiFreq10sqmi
Return Period Analyzed:	100
Analysis Options Analyzed:	No What-Ifs

Study Region Overview Map

Illustrating scenario flood extent, as well as exposed essential facilities and total exposure



Building Damage

General Building Stock Damage

Hazus estimates that about 1,158 buildings will be at least moderately damaged. This is over 54% of the total number of buildings in the scenario. There are an estimated 335 buildings that will be completely destroyed. The definition of the 'damage states' is provided in Volume 1: Chapter 5 of the Hazus Flood Technical Manual. Table 3 below summarizes the expected damage by general occupancy for the buildings in the region. Table 4 summarizes the expected damage by general building type.

Total Economic Loss (1 dot = $300K) Overview Map

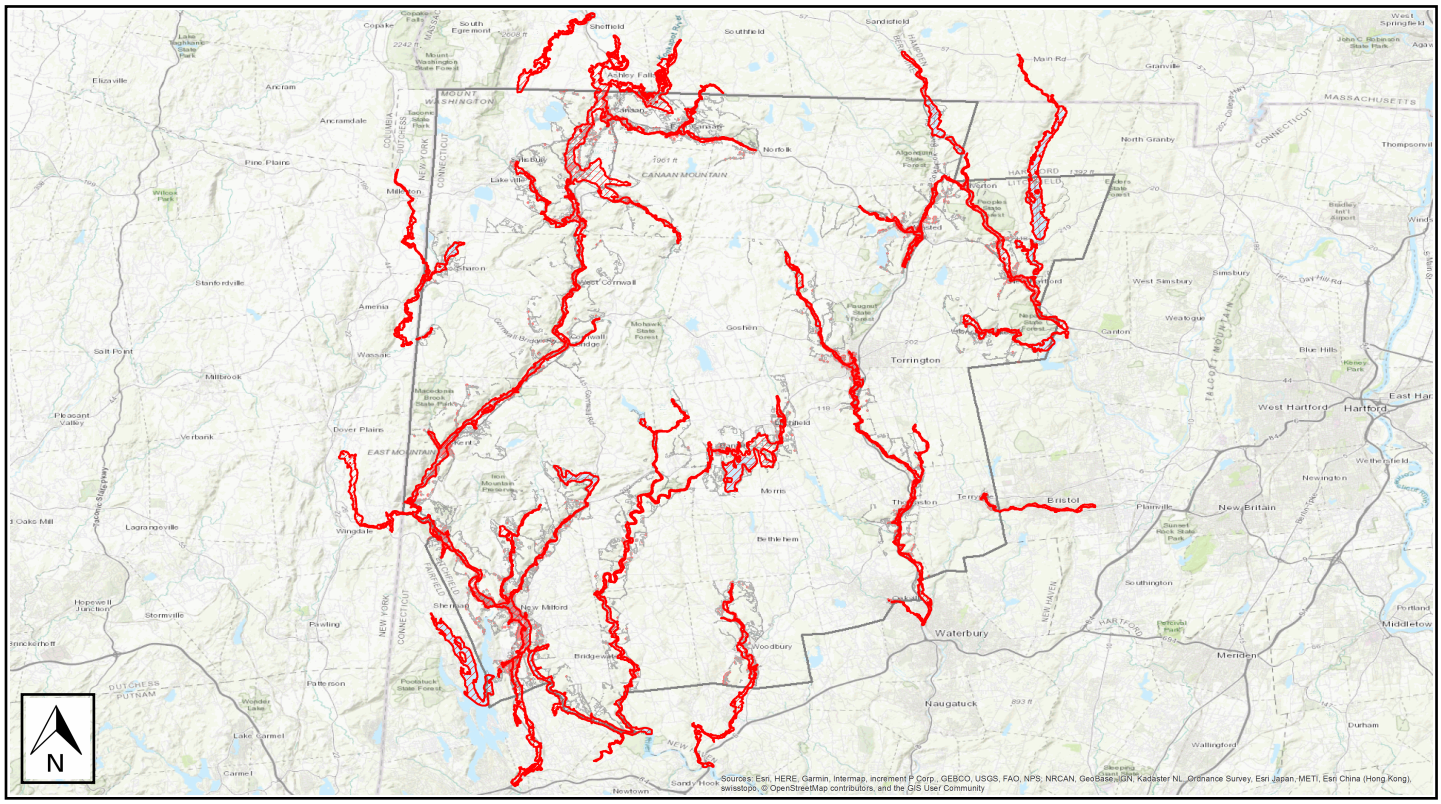


Table 3: Expected Building Damage by Occupancy

	1-10		11-20		21-30		31-40		41-50		Substantially	
Occupancy	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**
Agriculture	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Commercial	0	0.00	9	64.29	0	0.00	0	0.00	1	7.14	4	28.57
Education	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Government	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Industrial	3	17.65	6	35.29	3	17.65	5	29.41	0	0.00	0	0.00
Religion	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Residential	166	12.81	323	24.92	214	16.51	146	11.27	116	8.95	331	25.54
Total	**169**		**338**		**217**		**151**		**117**		**335**	

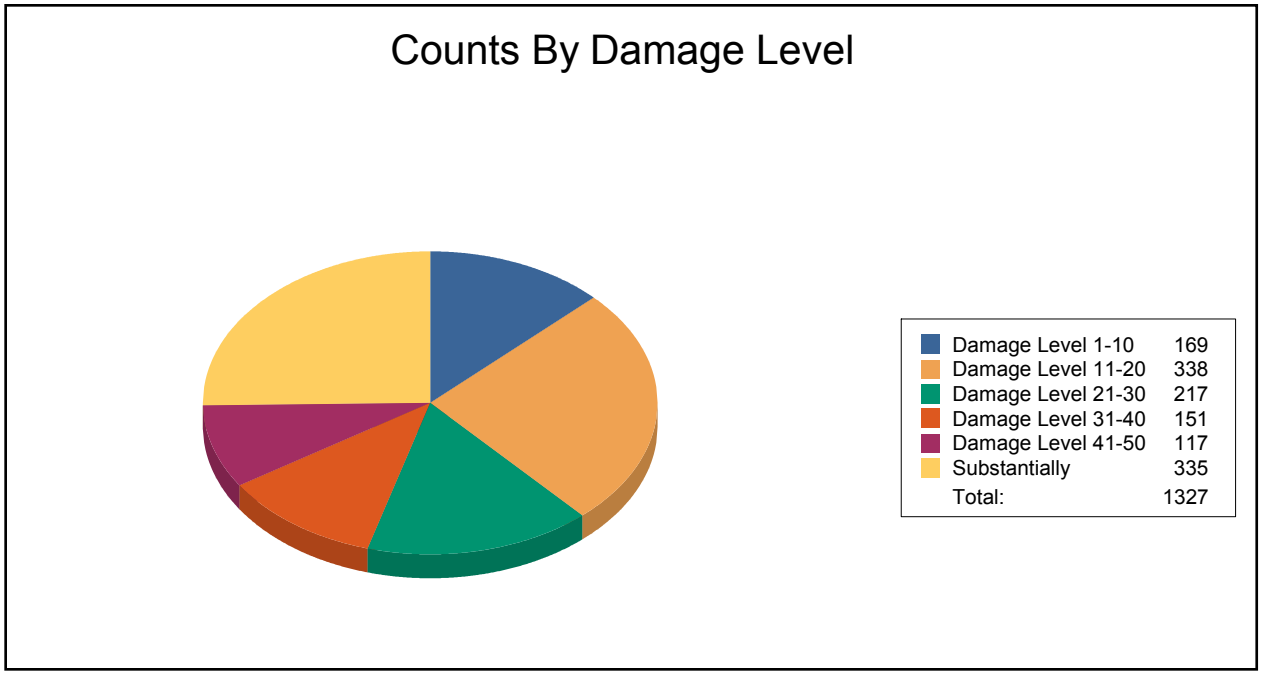


Table 4: Expected Building Damage by Building Type

Building Type	1-10		11-20		21-30		31-40		41-50		Substantially	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Concrete	0	0	0	0	0	0	0	0	0	0	0	0
ManufHousing	0	0	0	0	0	0	0	0	0	0	6	100
Masonry	12	27	14	31	11	24	4	9	2	4	2	4
Steel	2	10	10	48	2	10	4	19	1	5	2	10
Wood	153	12	310	25	202	16	143	11	113	9	323	26

Essential Facility Damage

Before the flood analyzed in this scenario, the region had 285 hospital beds available for use. On the day of the scenario flood event, the model estimates that 285 hospital beds are available in the region.

Table 5: Expected Damage to Essential Facilities

		# Facilities		
Classification	Total	At Least Moderate	At Least Substantial	Loss of Use
Fire Stations	32	4	0	4
Hospitals	4	0	0	0
Police Stations	13	0	1	1
Schools	104	2	2	7

If this report displays all zeros or is blank, two possibilities can explain this.

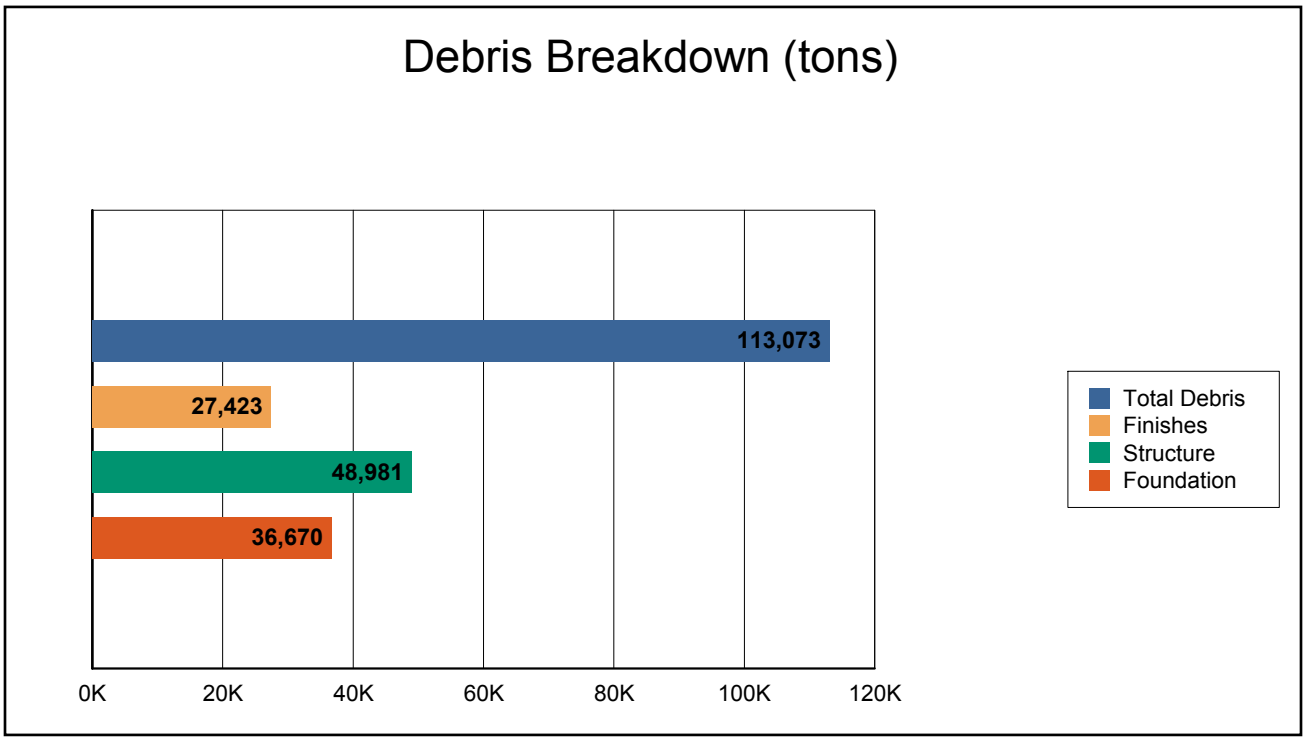
(1) None of your facilities were flooded. This can be checked by mapping the inventory data on the depth grid.

(2) The analysis was not run. This can be tested by checking the run box on the Analysis Menu and seeing if a message box asks you to replace the existing results.

Induced Flood Damage

Debris Generation

Hazus estimates the amount of debris that will be generated by the flood. The model breaks debris into three general categories: 1) Finishes (dry wall, insulation, etc.), 2) Structural (wood, brick, etc.) and 3) Foundations (concrete slab, concrete block, rebar, etc.). This distinction is made because of the different types of material handling equipment required to handle the debris.

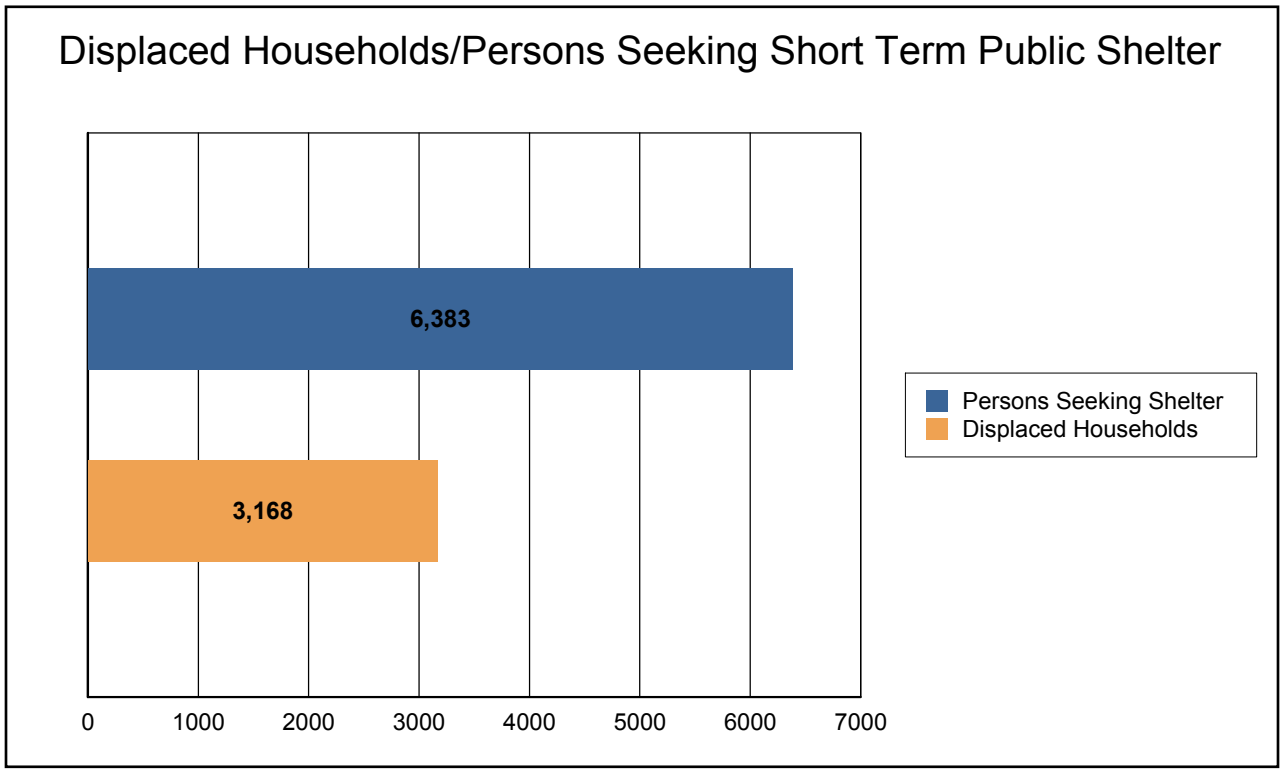


The model estimates that a total of 113,073 tons of debris will be generated. Of the total amount, Finishes comprises 24% of the total, Structure comprises 43% of the total. If the debris tonnage is converted into an estimated number of truckloads, it will require 4,523 truckloads (@25 tons/truck) to remove the debris generated by the flood.

Social Impact

Shelter Requirements

Hazus estimates the number of households that are expected to be displaced from their homes due to the flood and the associated potential evacuation. Hazus also estimates those displaced people that will require accommodations in temporary public shelters. The model estimates 3,168 households will be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 6,383 people (out of a total population of 189,927) will seek temporary shelter in public shelters.



Economic Loss

The total economic loss estimated for the flood is 1,278.27 million dollars, which represents 16.24 % of the total replacement value of the scenario buildings.

Building-Related Losses

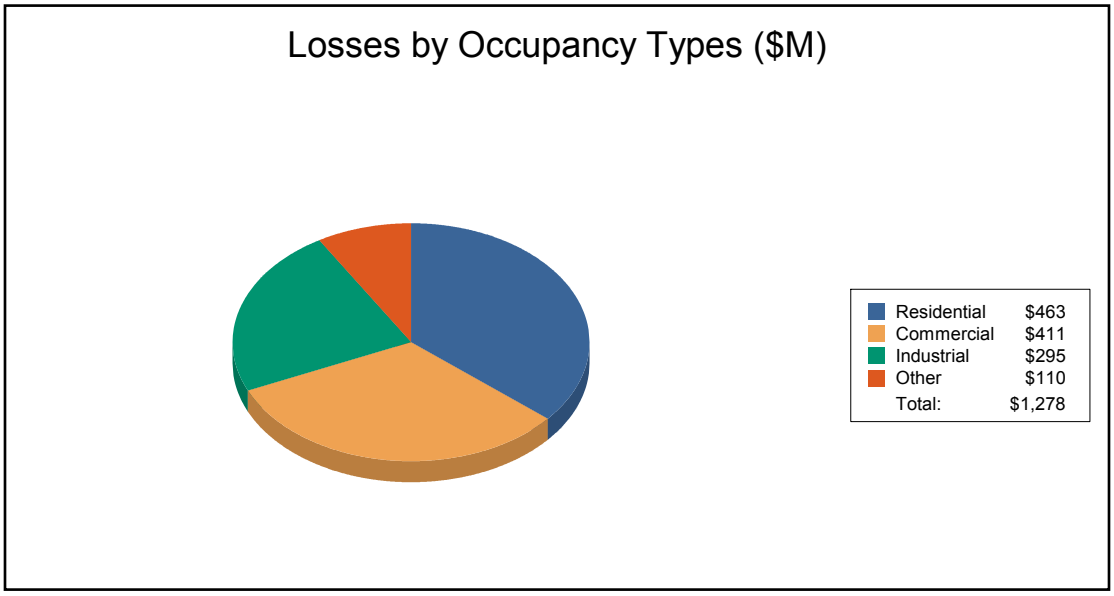
The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the flood. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the flood.

The total building-related losses were 1,273.72 million dollars. 0% of the estimated losses were related to the business interruption of the region. The residential occupancies made up 36.20% of the total loss. Table 6 below provides a summary of the losses associated with the building damage.

Table 6: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Building Loss						
	Building	311.43	124.80	84.24	25.74	546.21
	Content	150.88	278.32	188.91	81.23	699.33
	Inventory	0.00	5.38	22.05	0.74	28.18
	Subtotal	**462.31**	**408.50**	**295.19**	**107.71**	**1,273.72**
Business Interruption						
	Income	0.01	0.92	0.01	0.15	1.08
	Relocation	0.25	0.16	0.02	0.08	0.51
	Rental Income	0.07	0.08	0.00	0.00	0.15
	Wage	0.04	1.04	0.01	1.73	2.82
	Subtotal	**0.36**	**2.20**	**0.04**	**1.95**	**4.56**
ALL	**Total**	**462.68**	**410.70**	**295.24**	**109.66**	**1,278.27**



Appendix A: County Listing for the Region

Connecticut

- Litchfield

Appendix B: Regional Population and Building Value Data

	Population	Building Value (thousands of dollars)		
		Residential	Non-Residential	Total
Connecticut				
Litchfield	189,927	20,467,819	7,244,746	27,712,565
Total	**189,927**	**20,467,819**	**7,244,746**	**27,712,565**
Total Study Region	**189,927**	**20,467,819**	**7,244,746**	**27,712,565**

Hazus-MH: Flood Global Risk Report

Region Name: CTMddlsxV4Old100Yr

Flood Scenario: Old100YRHMP

Print Date: Monday, October 01, 2018

Disclaimer:
This version of Hazus utilizes 2010 Census Data.
Totals only reflect data for those census tracts/blocks included in the user's study region.

The estimates of social and economic impacts contained in this report were produced using Hazus loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific Flood. These results can be improved by using enhanced inventory data and flood hazard information.

FEMA

RiskMAP
Increasing Resilience Together

Table of Contents

General Description of the Region

Hazus is a regional multi-hazard loss estimation model that was developed by the Federal Emergency Management Agency (FEMA) and the National Institute of Building Sciences (NIBS). The primary purpose of Hazus is to provide a methodology and software application to develop multi-hazard losses at a regional scale. These loss estimates would be used primarily by local, state and regional officials to plan and stimulate efforts to reduce risks from multi-hazards and to prepare for emergency response and recovery.

The flood loss estimates provided in this report were based on a region that included 1 county(ies) from the following state(s):

- Connecticut

Note:
Appendix A contains a complete listing of the counties contained in the region.

The geographical size of the region is 383 square miles and contains 4,105 census blocks. The region contains over 67 thousand households and has a total population of 165,676 people (2010 Census Bureau data). The distribution of population by State and County for the study region is provided in Appendix B.

There are an estimated 67,616 buildings in the region with a total building replacement value (excluding contents) of 25,100 million dollars (2010 dollars). Approximately 90.52% of the buildings (and 74.09% of the building value) are associated with residential housing.

Building Inventory

General Building Stock

Hazus estimates that there are 67,616 buildings in the region which have an aggregate total replacement value of 25,100 million (2014 dollars). Table 1 and Table 2 present the relative distribution of the value with respect to the general occupancies by Study Region and Scenario respectively. Appendix B provides a general distribution of the building value by State and County.

Table 1
Building Exposure by Occupancy Type for the Study Region

Occupancy	Exposure ($1000)	Percent of Total
Residential	18,596,549	74.1%
Commercial	4,031,443	16.1%
Industrial	1,434,121	5.7%
Agricultural	104,789	0.4%
Religion	318,982	1.3%
Government	115,841	0.5%
Education	498,263	2.0%
Total	**25,099,988**	**100.0%**

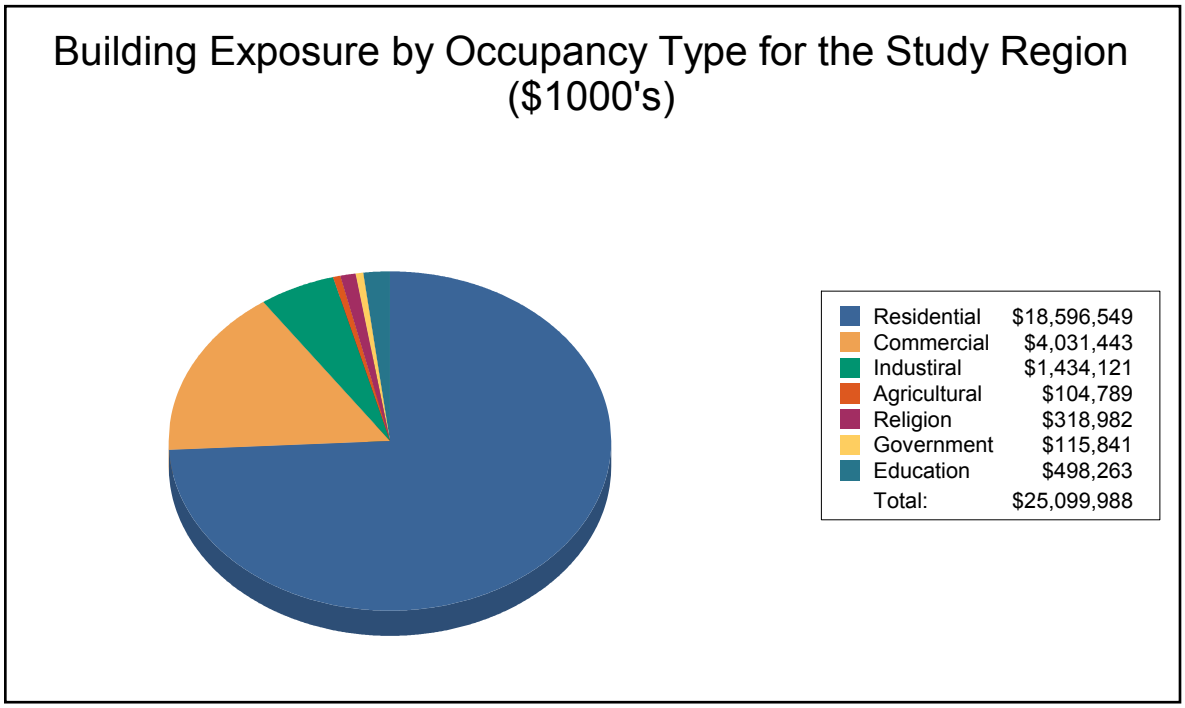
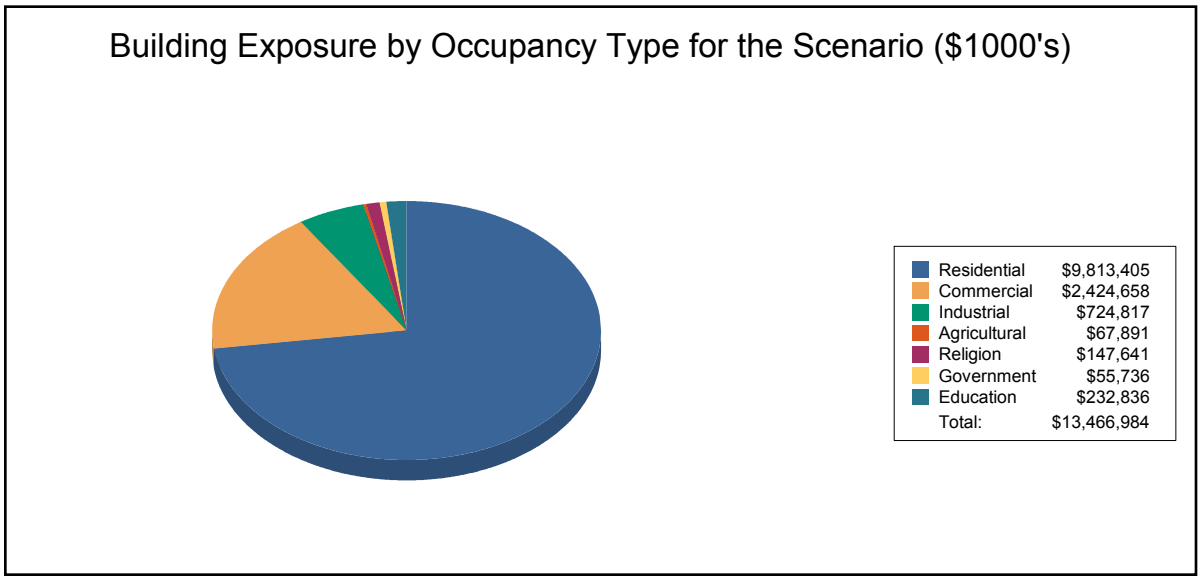


Table 2
Building Exposure by Occupancy Type for the Scenario

Occupancy	Exposure ($1000)	Percent of Total
Residential	9,813,405	72.9%
Commercial	2,424,658	18.0%
Industrial	724,817	5.4%
Agricultural	67,891	0.5%
Religion	147,641	1.1%
Government	55,736	0.4%
Education	232,836	1.7%
Total	**13,466,984**	**100.0%**



Essential Facility Inventory

For essential facilities, there are 4 hospitals in the region with a total bed capacity of 747 beds.
There are 72 schools, 15 fire stations, 12 police stations and 4 emergency operation center.

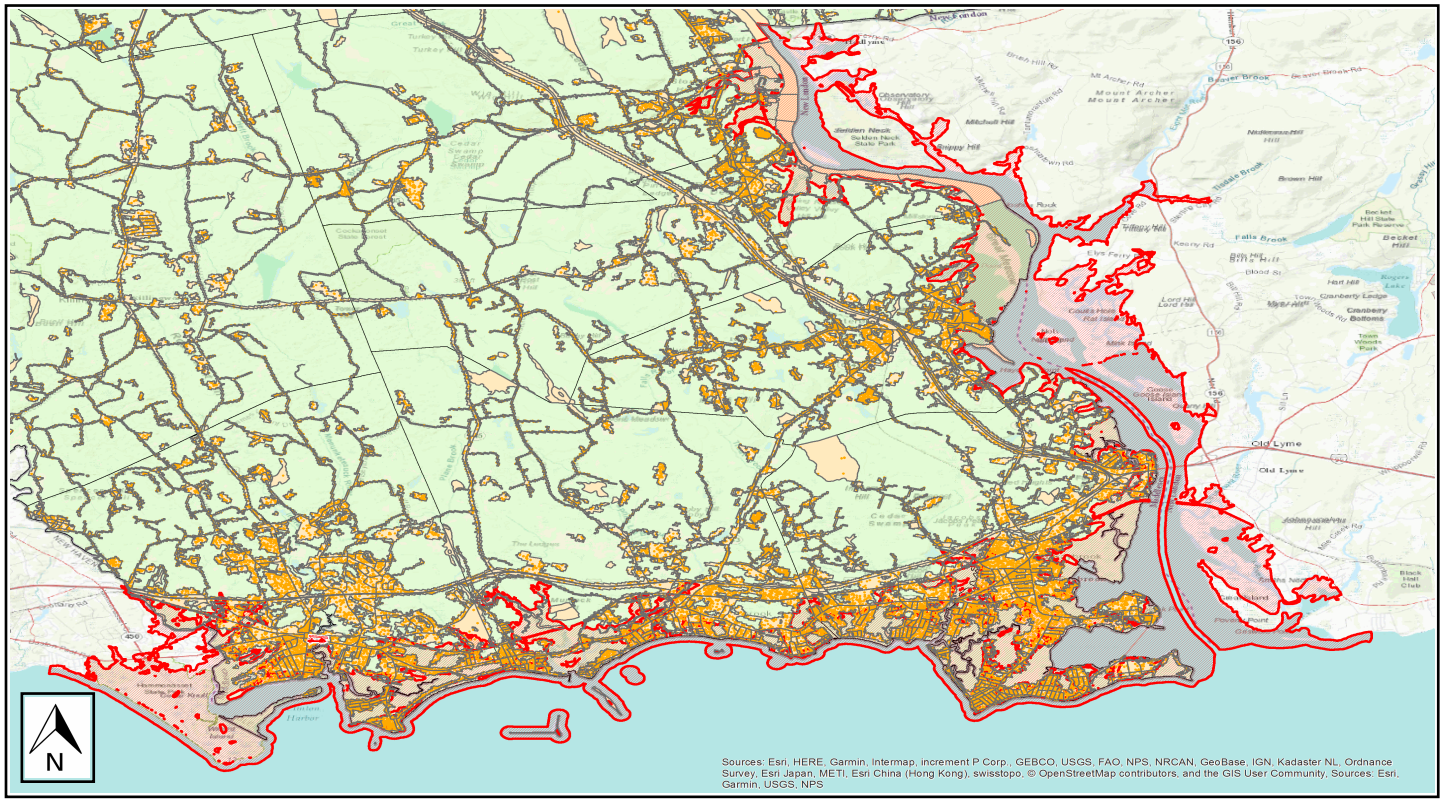
Flood Scenario Parameters

Hazus used the following set of information to define the flood parameters for the flood loss estimate provided in this report.

Study Region Name:	CTMddlsxV4Old100Yr
Scenario Name:	Old100YRHMP
Return Period Analyzed:	100
Analysis Options Analyzed:	No What-Ifs

Study Region Overview Map

Illustrating scenario flood extent, as well as exposed essential facilities and total exposure



Building Damage

General Building Stock Damage

Hazus estimates that about 1,904 buildings will be at least moderately damaged. This is over 50% of the total number of buildings in the scenario. There are an estimated 295 buildings that will be completely destroyed. The definition of the 'damage states' is provided in Volume 1: Chapter 5 of the Hazus Flood Technical Manual. Table 3 below summarizes the expected damage by general occupancy for the buildings in the region. Table 4 summarizes the expected damage by general building type.

Total Economic Loss (1 dot = $300K) Overview Map

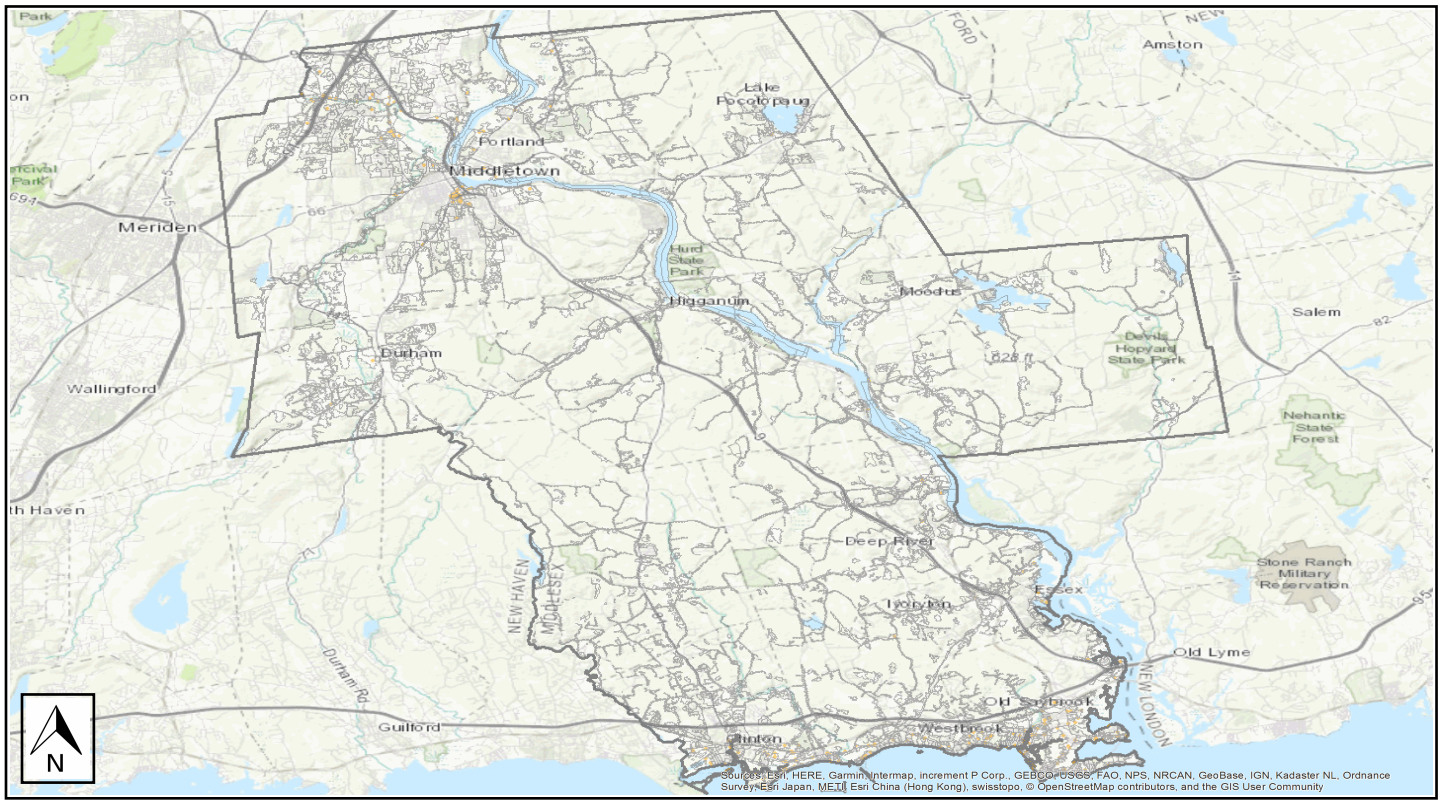


Table 3: Expected Building Damage by Occupancy

	1-10		11-20		21-30		31-40		41-50		Substantially	
Occupancy	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**
Agriculture	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Commercial	1	20.00	4	80.00	0	0.00	0	0.00	0	0.00	0	0.00
Education	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Government	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Industrial	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Religion	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Residential	192	9.18	970	46.37	448	21.41	146	6.98	41	1.96	295	14.10
Total	**193**		**974**		**448**		**146**		**41**		**295**	

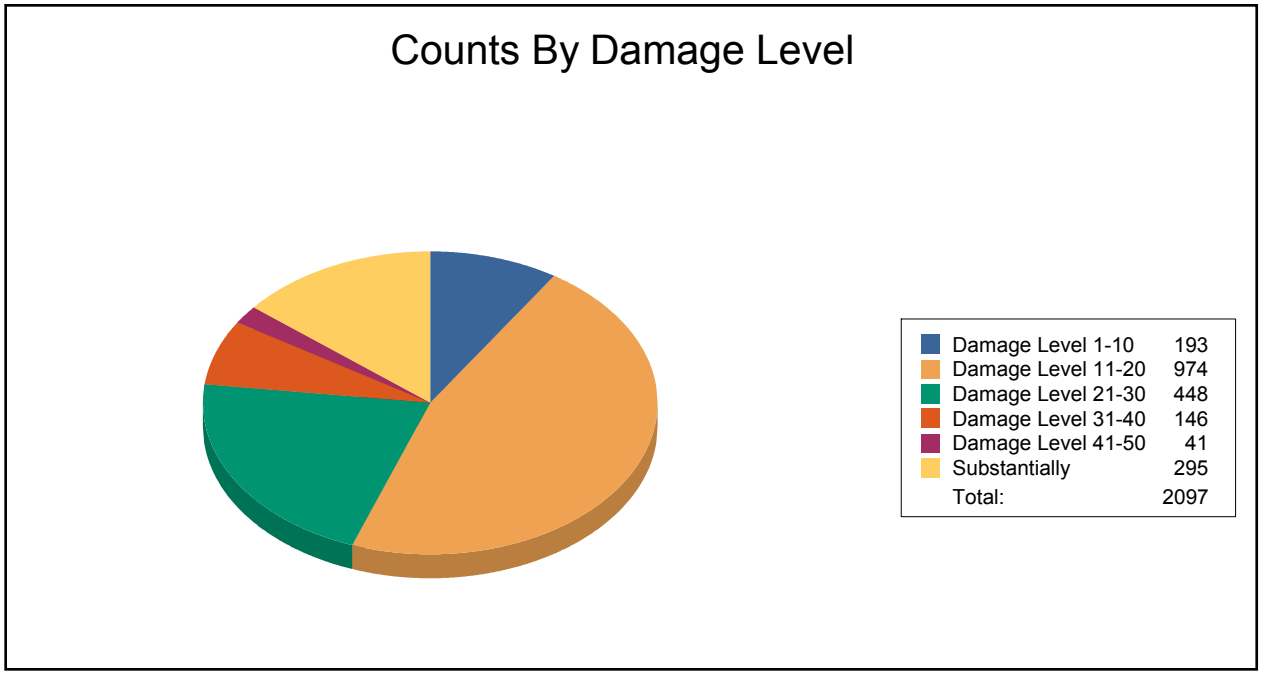


Table 4: Expected Building Damage by Building Type

Building Type	1-10		11-20		21-30		31-40		41-50		Substantially	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Concrete	0	0	0	0	0	0	0	0	0	0	0	0
ManufHousing	0	0	0	0	0	0	0	0	0	0	21	100
Masonry	0	0	19	66	6	21	1	3	0	0	3	10
Steel	1	33	2	67	0	0	0	0	0	0	0	0
Wood	192	9	952	47	442	22	145	7	41	2	271	13

Essential Facility Damage

Before the flood analyzed in this scenario, the region had 747 hospital beds available for use. On the day of the scenario flood event, the model estimates that 645 hospital beds are available in the region.

Table 5: Expected Damage to Essential Facilities

		# Facilities		
Classification	Total	At Least Moderate	At Least Substantial	Loss of Use
Fire Stations	15	2	0	2
Hospitals	4	1	0	1
Police Stations	12	0	0	0
Schools	72	2	0	3

If this report displays all zeros or is blank, two possibilities can explain this.

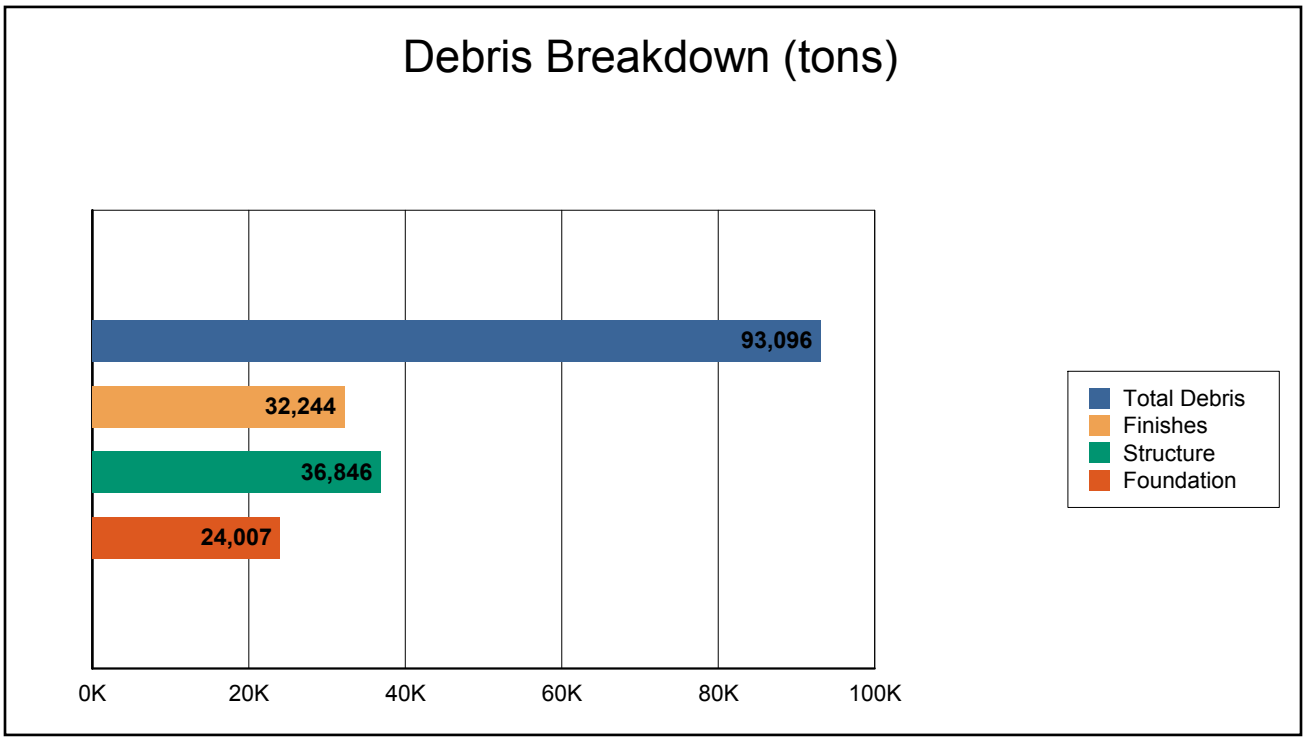
(1) None of your facilities were flooded. This can be checked by mapping the inventory data on the depth grid.

(2) The analysis was not run. This can be tested by checking the run box on the Analysis Menu and seeing if a message box asks you to replace the existing results.

Induced Flood Damage

Debris Generation

Hazus estimates the amount of debris that will be generated by the flood. The model breaks debris into three general categories: 1) Finishes (dry wall, insulation, etc.), 2) Structural (wood, brick, etc.) and 3) Foundations (concrete slab, concrete block, rebar, etc.). This distinction is made because of the different types of material handling equipment required to handle the debris.

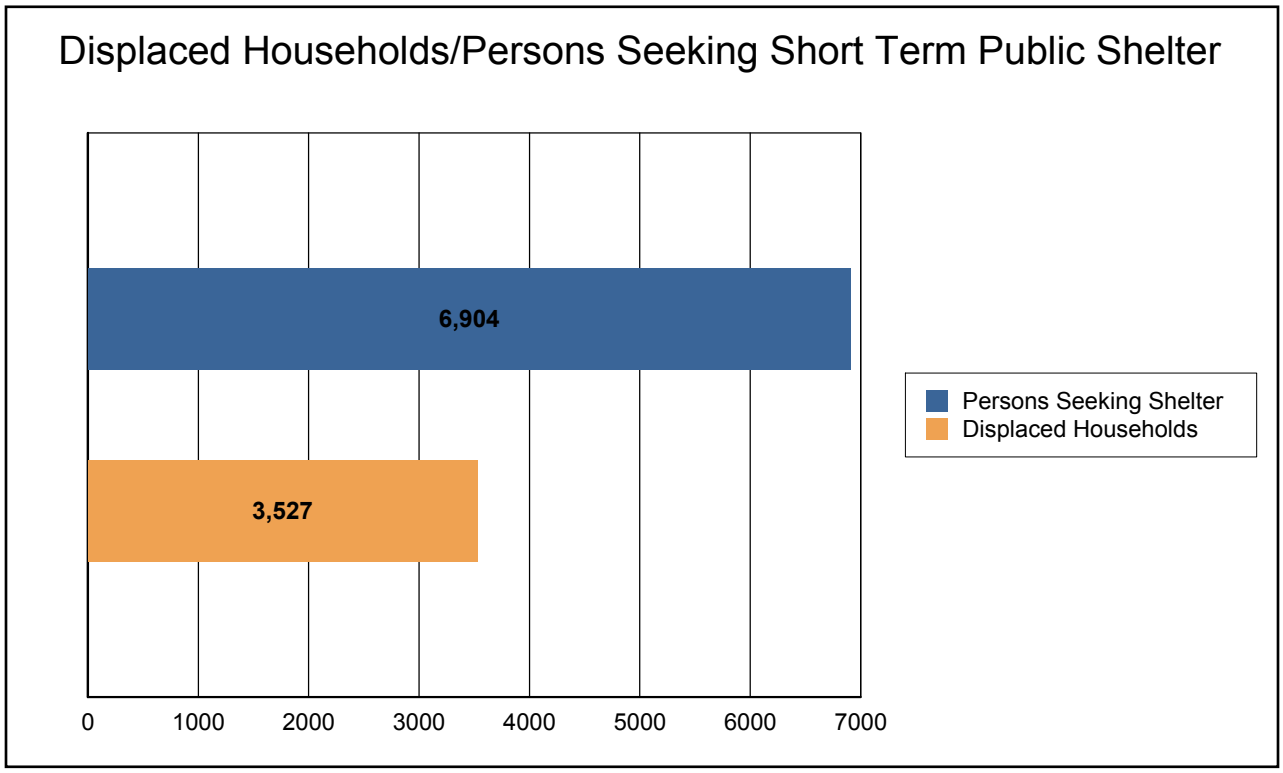


The model estimates that a total of 93,096 tons of debris will be generated. Of the total amount, Finishes comprises 35% of the total, Structure comprises 40% of the total. If the debris tonnage is converted into an estimated number of truckloads, it will require 3,724 truckloads (@25 tons/truck) to remove the debris generated by the flood.

Social Impact

Shelter Requirements

Hazus estimates the number of households that are expected to be displaced from their homes due to the flood and the associated potential evacuation. Hazus also estimates those displaced people that will require accommodations in temporary public shelters. The model estimates 3,527 households will be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 6,904 people (out of a total population of 165,676) will seek temporary shelter in public shelters.



Economic Loss

The total economic loss estimated for the flood is 947.48 million dollars, which represents 7.04 % of the total replacement value of the scenario buildings.

Building-Related Losses

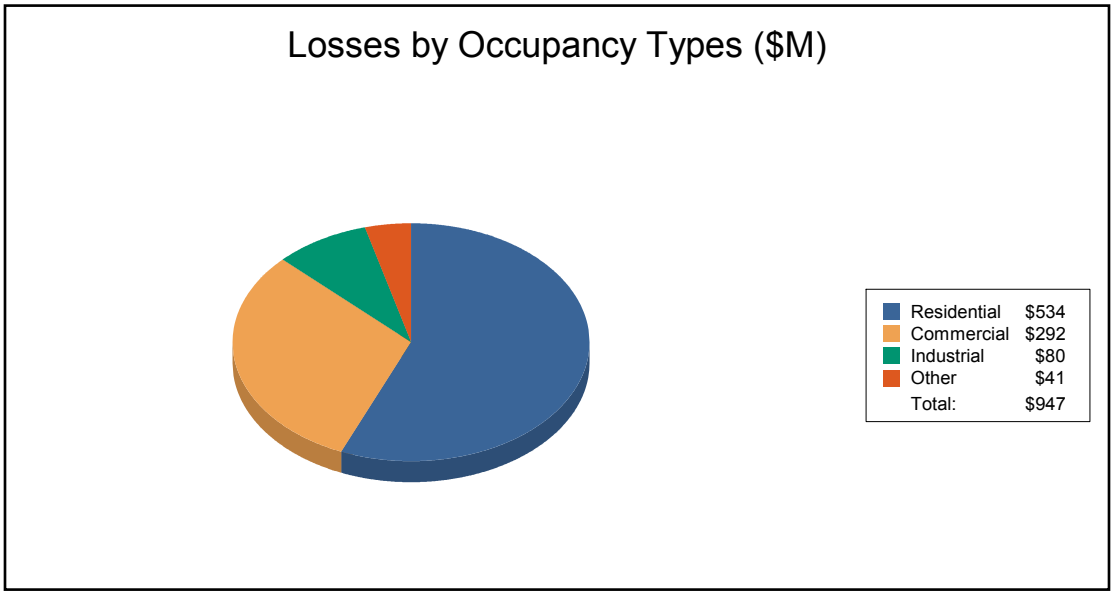
The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the flood. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the flood.

The total building-related losses were 943.94 million dollars. 0% of the estimated losses were related to the business interruption of the region. The residential occupancies made up 56.41% of the total loss. Table 6 below provides a summary of the losses associated with the building damage.

Table 6: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Building Loss						
	Building	302.06	80.61	22.28	7.58	412.53
	Content	231.61	206.50	51.46	31.93	521.51
	Inventory	0.00	3.26	6.38	0.26	9.90
	Subtotal	**533.67**	**290.37**	**80.13**	**39.77**	**943.94**
Business Interruption						
	Income	0.03	0.85	0.00	0.05	0.93
	Relocation	0.49	0.15	0.00	0.02	0.66
	Rental Income	0.14	0.08	0.00	0.00	0.22
	Wage	0.09	0.96	0.00	0.67	1.72
	Subtotal	**0.76**	**2.04**	**0.00**	**0.74**	**3.54**
ALL	**Total**	**534.43**	**292.41**	**80.13**	**40.51**	**947.48**



Appendix A: County Listing for the Region

Connecticut

- Middlesex

Appendix B: Regional Population and Building Value Data

	Population	Building Value (thousands of dollars)		
		Residential	Non-Residential	Total
Connecticut				
Middlesex	165,676	18,596,549	6,503,439	25,099,988
Total	**165,676**	**18,596,549**	**6,503,439**	**25,099,988**
Total Study Region	**165,676**	**18,596,549**	**6,503,439**	**25,099,988**

Hazus-MH: Flood Global Risk Report

Region Name: CT_NH_FLD_100yr

Flood Scenario: Old100YrRivAndCoast

Print Date: Tuesday, October 02, 2018

Disclaimer:
This version of Hazus utilizes 2010 Census Data.
Totals only reflect data for those census tracts/blocks included in the user's study region.

The estimates of social and economic impacts contained in this report were produced using Hazus loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific Flood. These results can be improved by using enhanced inventory data and flood hazard information.

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General Description of the Region

Hazus is a regional multi-hazard loss estimation model that was developed by the Federal Emergency Management Agency (FEMA) and the National Institute of Building Sciences (NIBS). The primary purpose of Hazus is to provide a methodology and software application to develop multi-hazard losses at a regional scale. These loss estimates would be used primarily by local, state and regional officials to plan and stimulate efforts to reduce risks from multi-hazards and to prepare for emergency response and recovery.

The flood loss estimates provided in this report were based on a region that included 1 county(ies) from the following state(s):

- Connecticut

Note:
Appendix A contains a complete listing of the counties contained in the region.

The geographical size of the region is 618 square miles and contains 13,548 census blocks. The region contains over 335 thousand households and has a total population of 862,477 people (2010 Census Bureau data). The distribution of population by State and County for the study region is provided in Appendix B.

There are an estimated 280,171 buildings in the region with a total building replacement value (excluding contents) of 114,905 million dollars (2010 dollars). Approximately 90.05% of the buildings (and 69.57% of the building value) are associated with residential housing.

Building Inventory

General Building Stock

Hazus estimates that there are 280,171 buildings in the region which have an aggregate total replacement value of 114,905 million (2014 dollars). Table 1 and Table 2 present the relative distribution of the value with respect to the general occupancies by Study Region and Scenario respectively. Appendix B provides a general distribution of the building value by State and County.

Table 1
Building Exposure by Occupancy Type for the Study Region

Occupancy	Exposure ($1000)	Percent of Total
Residential	79,934,150	69.6%
Commercial	22,388,917	19.5%
Industrial	6,359,788	5.5%
Agricultural	318,859	0.3%
Religion	1,470,237	1.3%
Government	530,706	0.5%
Education	3,902,802	3.4%
Total	**114,905,459**	**100.0%**

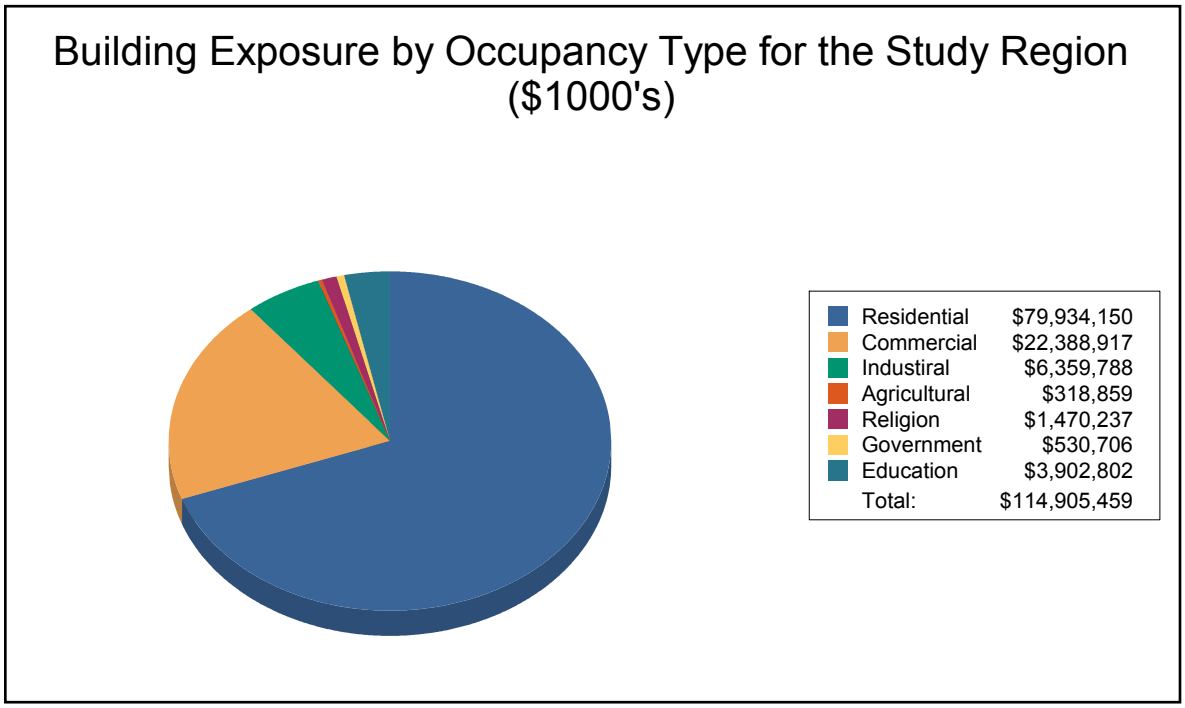
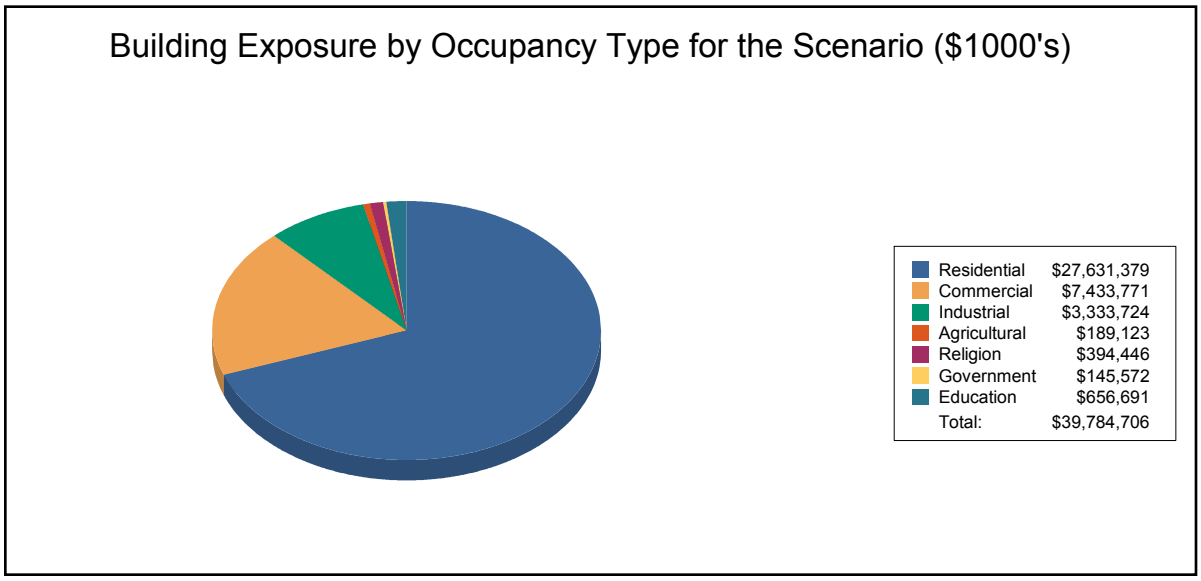


Table 2
Building Exposure by Occupancy Type for the Scenario

Occupancy	Exposure ($1000)	Percent of Total
Residential	27,631,379	69.5%
Commercial	7,433,771	18.7%
Industrial	3,333,724	8.4%
Agricultural	189,123	0.5%
Religion	394,446	1.0%
Government	145,572	0.4%
Education	656,691	1.7%
Total	**39,784,706**	**100.0%**



Essential Facility Inventory

For essential facilities, there are 13 hospitals in the region with a total bed capacity of 2,769 beds. There are 358 schools, 43 fire stations, 55 police stations and 4 emergency operation center.

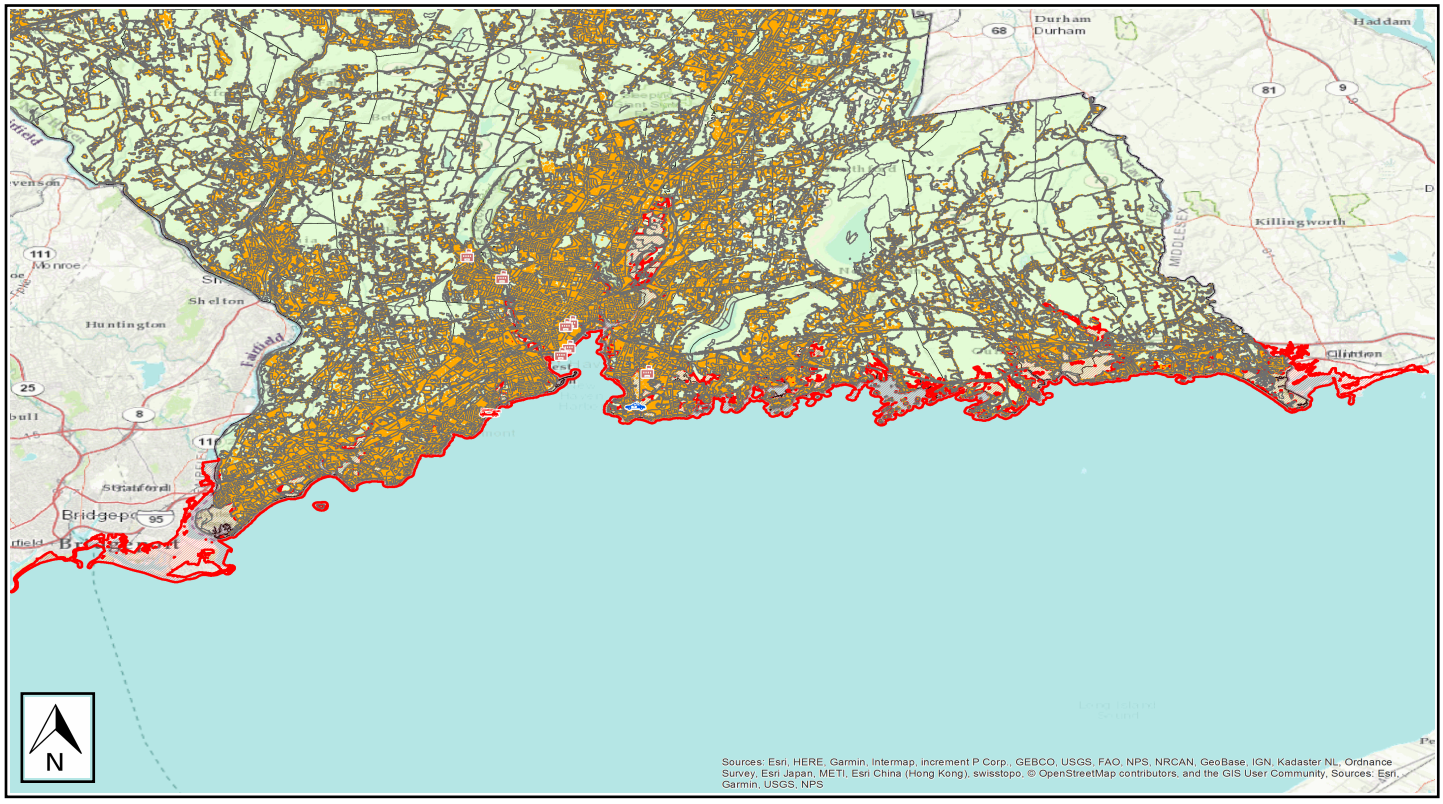
Flood Scenario Parameters

Hazus used the following set of information to define the flood parameters for the flood loss estimate provided in this report.

Study Region Name:	CT_NH_FLD_100yr
Scenario Name:	Old100YrRivAndCoast
Return Period Analyzed:	100
Analysis Options Analyzed:	No What-Ifs

Study Region Overview Map

Illustrating scenario flood extent, as well as exposed essential facilities and total exposure



Building Damage

General Building Stock Damage

Hazus estimates that about 4,284 buildings will be at least moderately damaged. This is over 52% of the total number of buildings in the scenario. There are an estimated 457 buildings that will be completely destroyed. The definition of the 'damage states' is provided in Volume 1: Chapter 5 of the Hazus Flood Technical Manual. Table 3 below summarizes the expected damage by general occupancy for the buildings in the region. Table 4 summarizes the expected damage by general building type.

Total Economic Loss (1 dot = $300K) Overview Map

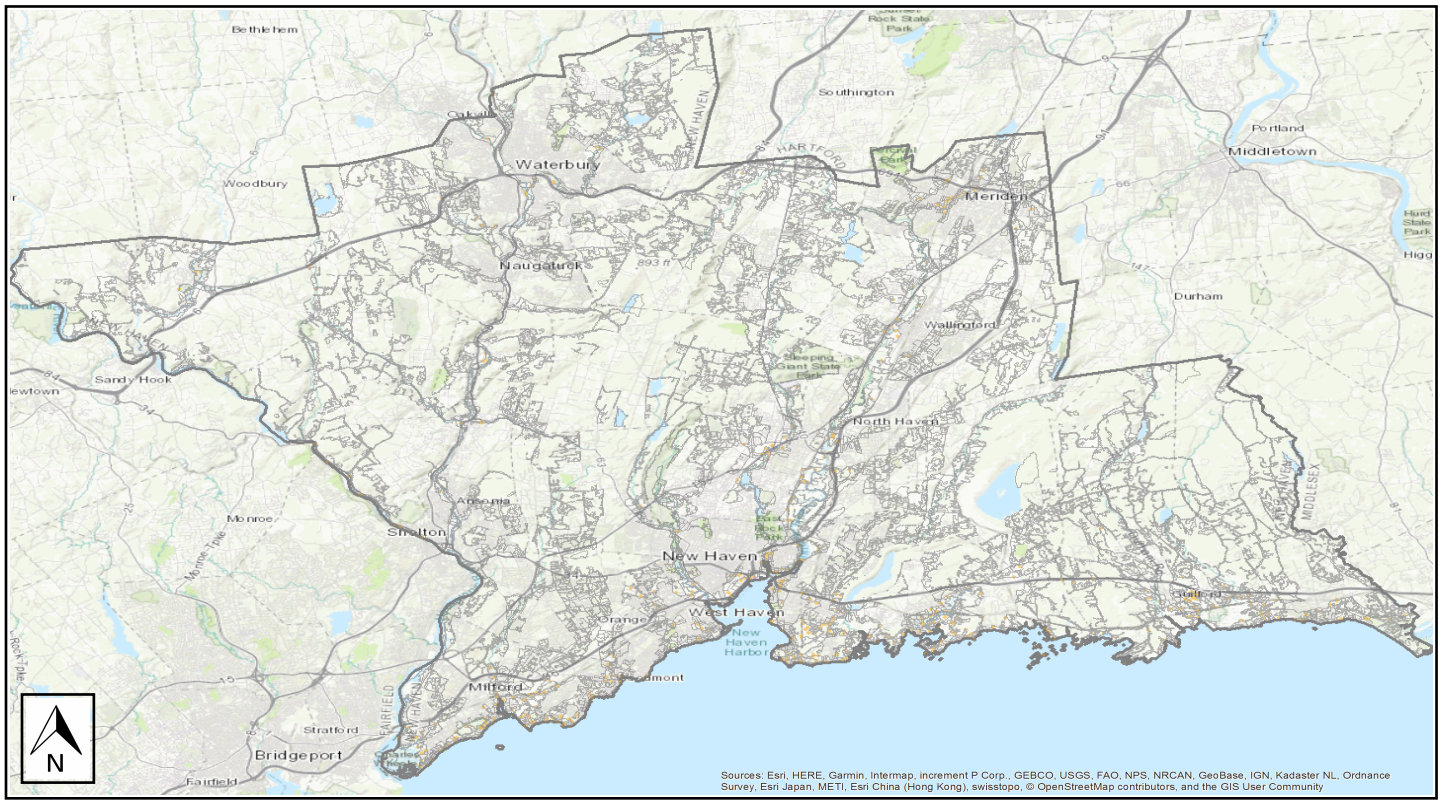


Table 3: Expected Building Damage by Occupancy

	1-10		11-20		21-30		31-40		41-50		Substantially	
Occupancy	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**
Agriculture	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Commercial	5	23.81	14	66.67	2	9.52	0	0.00	0	0.00	0	0.00
Education	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Government	0	0.00	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00
Industrial	0	0.00	0	0.00	1	50.00	1	50.00	0	0.00	0	0.00
Religion	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Residential	707	14.22	2,301	46.28	1,032	20.76	348	7.00	127	2.55	457	9.19
Total	**712**		**2,316**		**1,035**		**349**		**127**		**457**	

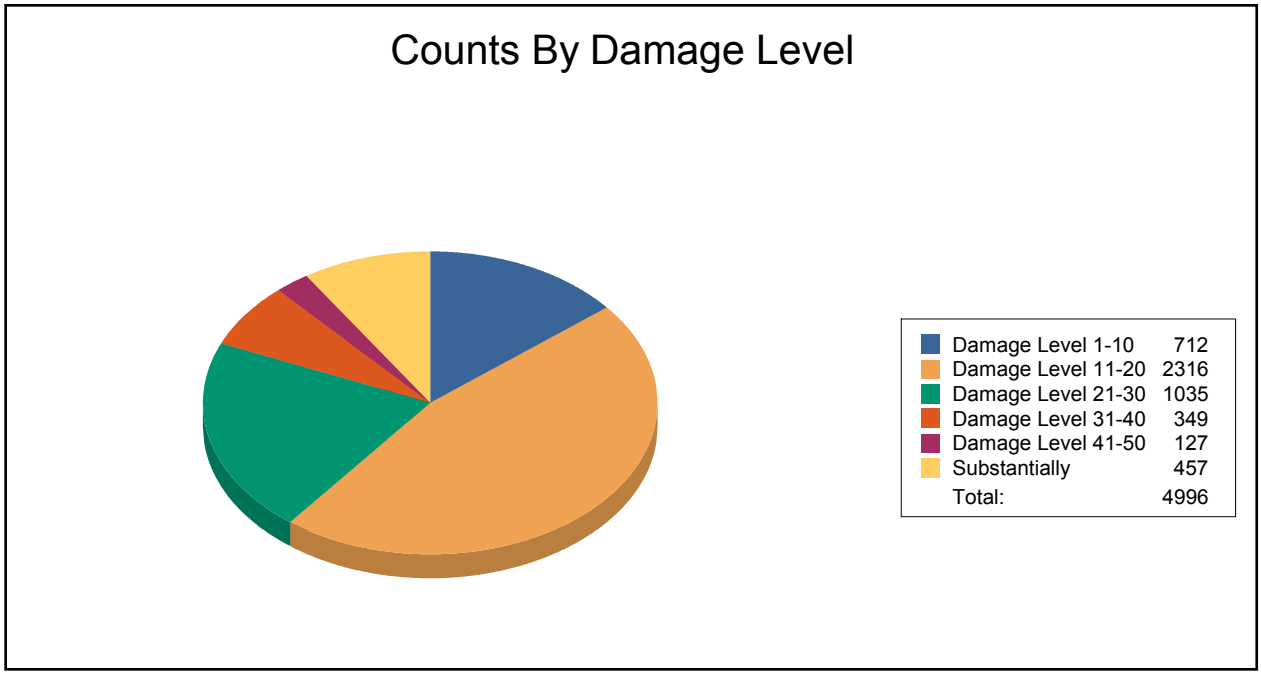


Table 4: Expected Building Damage by Building Type

Building Type	1-10		11-20		21-30		31-40		41-50		Substantially	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Concrete	0	0	0	0	0	0	0	0	0	0	0	0
ManufHousing	0	0	0	0	0	0	0	0	0	0	15	100
Masonry	17	20	51	59	13	15	1	1	1	1	3	3
Steel	4	29	8	57	1	7	1	7	0	0	0	0
Wood	689	14	2,251	46	1,016	21	347	7	126	3	439	9

Essential Facility Damage

Before the flood analyzed in this scenario, the region had 2,769 hospital beds available for use. On the day of the scenario flood event, the model estimates that 2,769 hospital beds are available in the region.

Table 5: Expected Damage to Essential Facilities

		# Facilities		
Classification	Total	At Least Moderate	At Least Substantial	Loss of Use
Fire Stations	43	2	0	2
Hospitals	13	0	0	0
Police Stations	55	1	0	1
Schools	358	5	0	6

If this report displays all zeros or is blank, two possibilities can explain this.

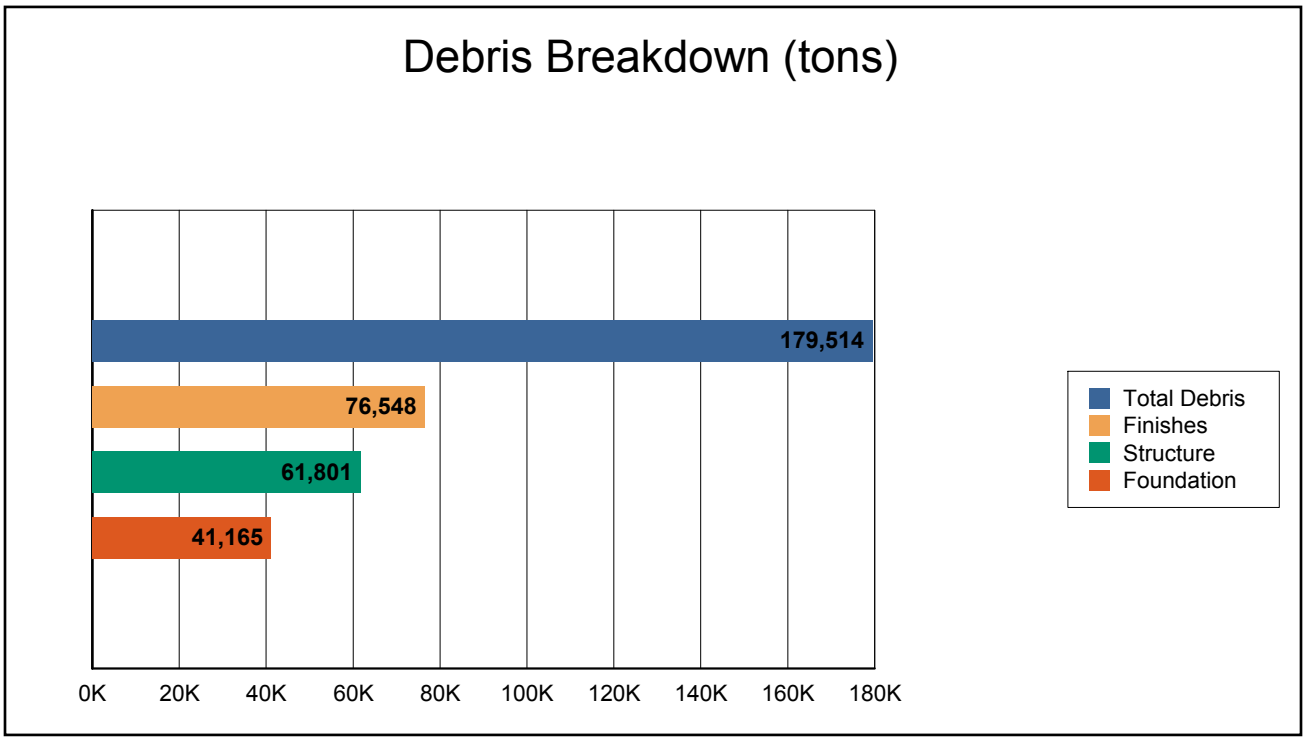
(1) None of your facilities were flooded. This can be checked by mapping the inventory data on the depth grid.

(2) The analysis was not run. This can be tested by checking the run box on the Analysis Menu and seeing if a message box asks you to replace the existing results.

Induced Flood Damage

Debris Generation

Hazus estimates the amount of debris that will be generated by the flood. The model breaks debris into three general categories: 1) Finishes (dry wall, insulation, etc.), 2) Structural (wood, brick, etc.) and 3) Foundations (concrete slab, concrete block, rebar, etc.). This distinction is made because of the different types of material handling equipment required to handle the debris.

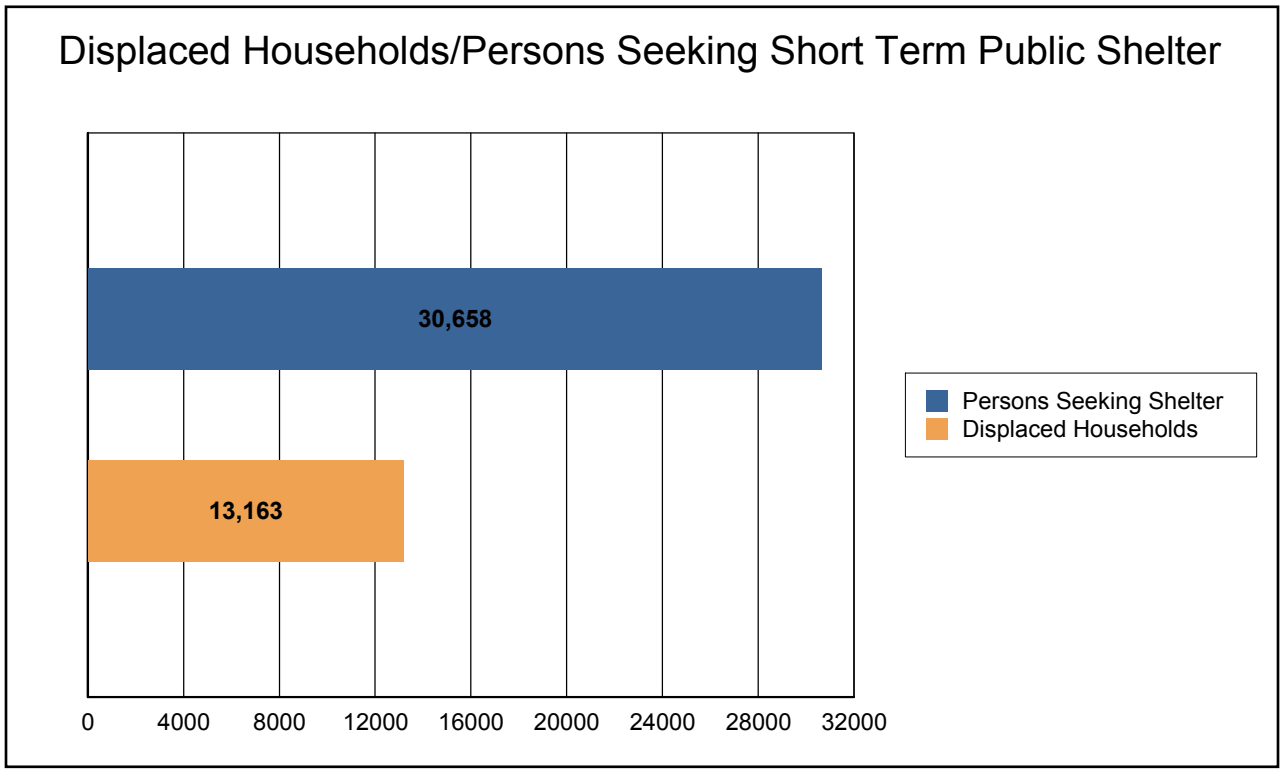


The model estimates that a total of 179,514 tons of debris will be generated. Of the total amount, Finishes comprises 43% of the total, Structure comprises 34% of the total. If the debris tonnage is converted into an estimated number of truckloads, it will require 7,181 truckloads (@25 tons/truck) to remove the debris generated by the flood.

Social Impact

Shelter Requirements

Hazus estimates the number of households that are expected to be displaced from their homes due to the flood and the associated potential evacuation. Hazus also estimates those displaced people that will require accommodations in temporary public shelters. The model estimates 13,163 households will be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 30,658 people (out of a total population of 862,477) will seek temporary shelter in public shelters.



Economic Loss

The total economic loss estimated for the flood is 2,461.47 million dollars, which represents 6.19 % of the total replacement value of the scenario buildings.

Building-Related Losses

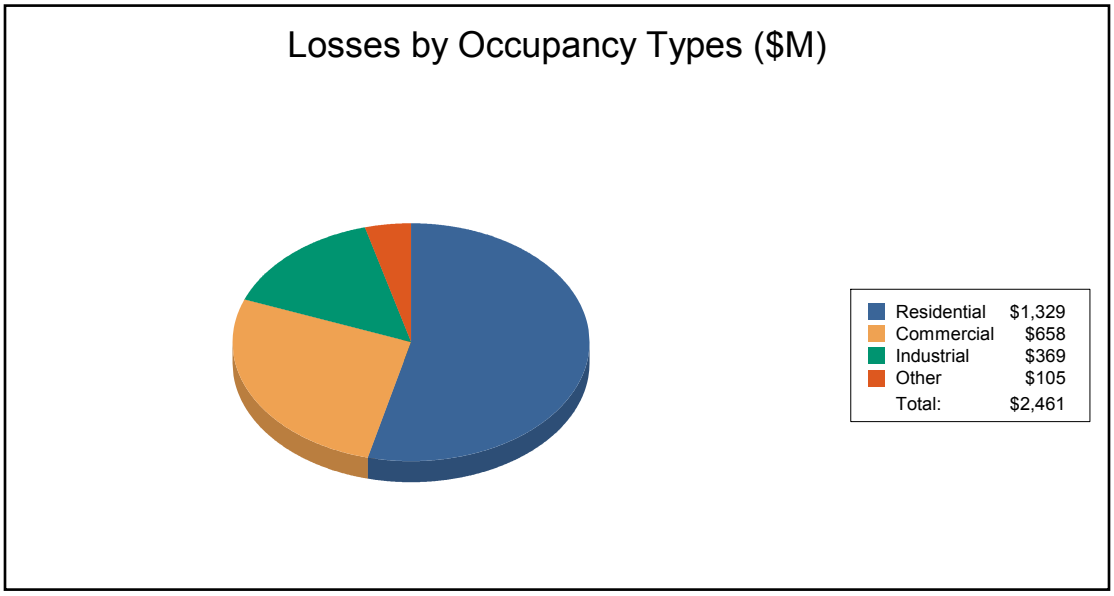
The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the flood. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the flood.

The total building-related losses were 2,452.12 million dollars. 0% of the estimated losses were related to the business interruption of the region. The residential occupancies made up 53.98% of the total loss. Table 6 below provides a summary of the losses associated with the building damage.

Table 6: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Building Loss						
	Building	755.05	174.22	98.69	16.70	1,044.65
	Content	572.11	469.79	241.69	85.87	1,369.47
	Inventory	0.00	8.61	28.64	0.75	38.00
	Subtotal	**1,327.16**	**652.62**	**369.02**	**103.32**	**2,452.12**
Business Interruption						
	Income	0.03	2.59	0.04	0.17	2.83
	Relocation	1.20	0.40	0.03	0.06	1.69
	Rental Income	0.33	0.26	0.00	0.00	0.59
	Wage	0.09	2.51	0.03	1.62	4.25
	Subtotal	**1.65**	**5.76**	**0.10**	**1.85**	**9.35**
ALL	**Total**	**1,328.81**	**658.38**	**369.12**	**105.17**	**2,461.47**



Appendix A: County Listing for the Region

Connecticut

- New Haven

Appendix B: Regional Population and Building Value Data

	Population	Building Value (thousands of dollars)		
		Residential	Non-Residential	Total
Connecticut				
New Haven	862,477	79,934,150	34,971,309	114,905,459
Total	**862,477**	**79,934,150**	**34,971,309**	**114,905,459**
Total Study Region	**862,477**	**79,934,150**	**34,971,309**	**114,905,459**

Hazus-MH: Flood Global Risk Report

Region Name: CTNwLndnV4Old100Yr

Flood Scenario: Yr100Old2013DGRivAndCoast

Print Date: Monday, October 01, 2018

Disclaimer:
This version of Hazus utilizes 2010 Census Data.
Totals only reflect data for those census tracts/blocks included in the user's study region.

The estimates of social and economic impacts contained in this report were produced using Hazus loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific Flood. These results can be improved by using enhanced inventory data and flood hazard information.

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The flood loss estimates provided in this report were based on a region that included 1 county(ies) from the following state(s):

- Connecticut

Note:
Appendix A contains a complete listing of the counties contained in the region.

The geographical size of the region is 687 square miles and contains 7,170 census blocks. The region contains over 107 thousand households and has a total population of 274,055 people (2010 Census Bureau data). The distribution of population by State and County for the study region is provided in Appendix B.

There are an estimated 104,261 buildings in the region with a total building replacement value (excluding contents) of 36,587 million dollars (2010 dollars). Approximately 91.15% of the buildings (and 77.08% of the building value) are associated with residential housing.

Building Inventory

General Building Stock

Hazus estimates that there are 104,261 buildings in the region which have an aggregate total replacement value of 36,587 million (2014 dollars). Table 1 and Table 2 present the relative distribution of the value with respect to the general occupancies by Study Region and Scenario respectively. Appendix B provides a general distribution of the building value by State and County.

Table 1
Building Exposure by Occupancy Type for the Study Region

Occupancy	Exposure ($1000)	Percent of Total
Residential	28,202,956	77.1%
Commercial	5,164,538	14.1%
Industrial	1,282,824	3.5%
Agricultural	338,297	0.9%
Religion	460,081	1.3%
Government	343,457	0.9%
Education	794,726	2.2%
Total	**36,586,879**	**100.0%**

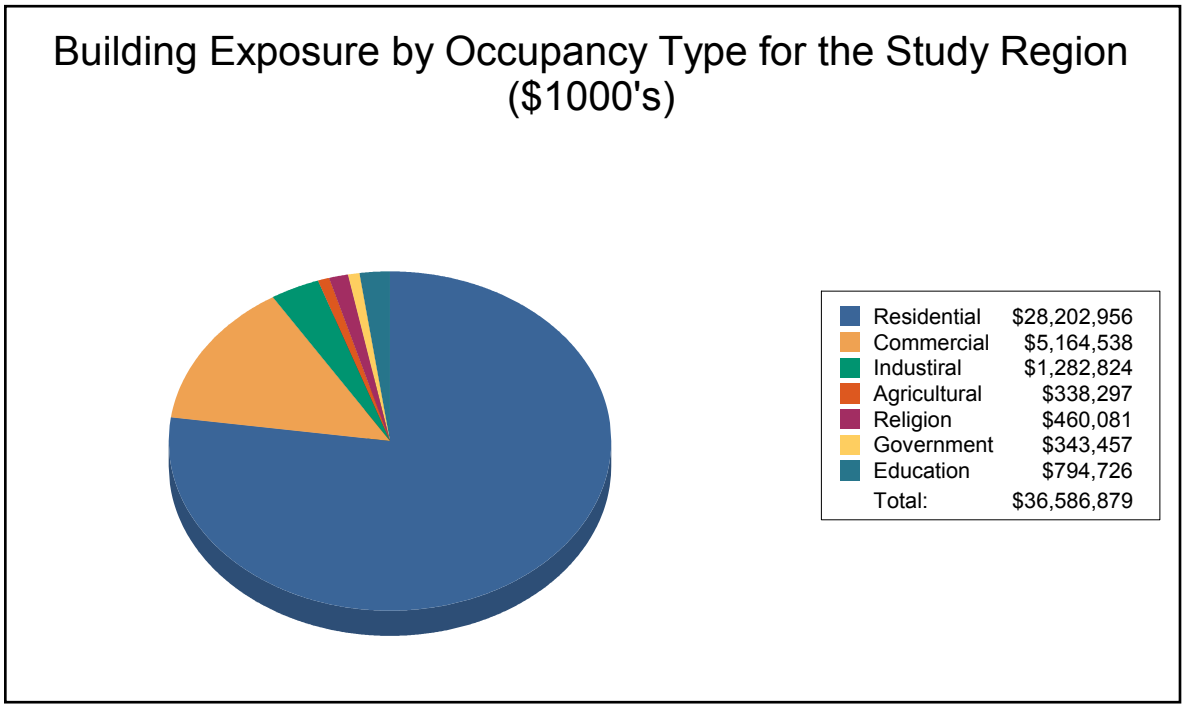
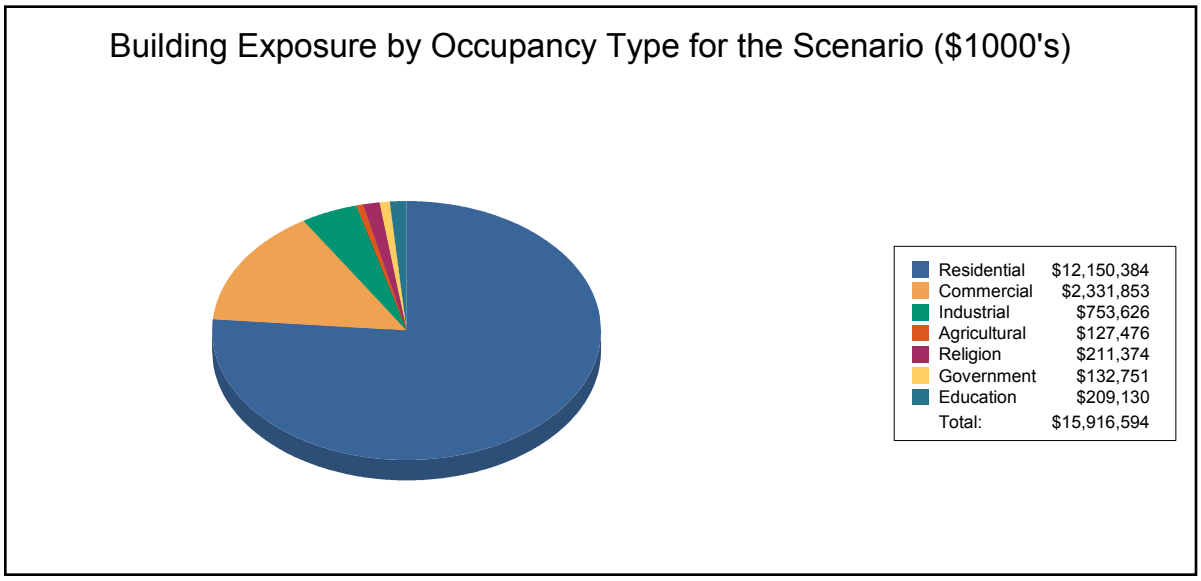


Table 2
Building Exposure by Occupancy Type for the Scenario

Occupancy	Exposure ($1000)	Percent of Total
Residential	12,150,384	76.3%
Commercial	2,331,853	14.7%
Industrial	753,626	4.7%
Agricultural	127,476	0.8%
Religion	211,374	1.3%
Government	132,751	0.8%
Education	209,130	1.3%
Total	**15,916,594**	**100.0%**



Essential Facility Inventory

For essential facilities, there are 2 hospitals in the region with a total bed capacity of 419 beds.
There are 129 schools, 49 fire stations, 25 police stations and 9 emergency operation center.

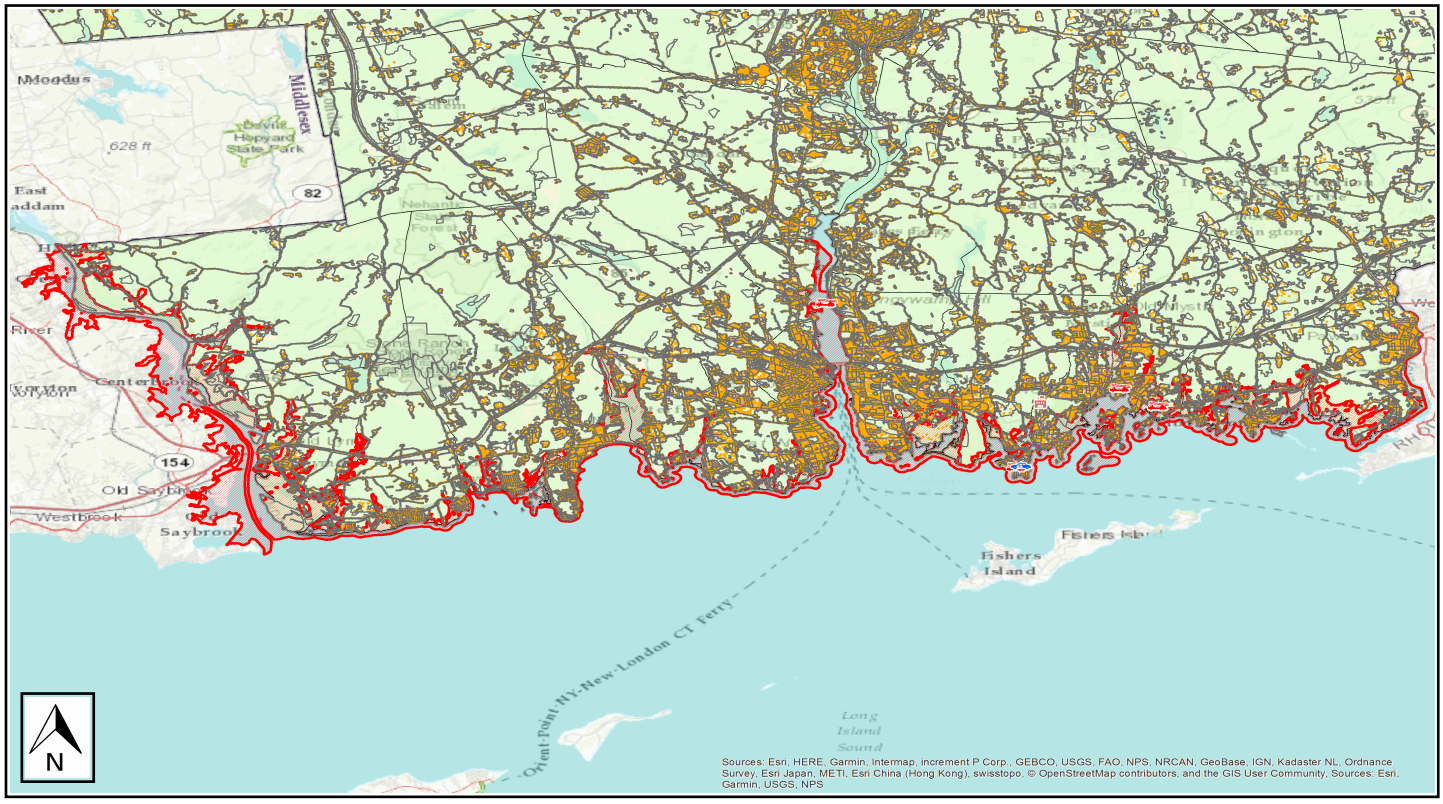
Flood Scenario Parameters

Hazus used the following set of information to define the flood parameters for the flood loss estimate provided in this report.

Study Region Name:	CTNwLndnV4Old100Yr
Scenario Name:	Yr100Old2013DGRivAndCoast
Return Period Analyzed:	100
Analysis Options Analyzed:	No What-Ifs

Study Region Overview Map

Illustrating scenario flood extent, as well as exposed essential facilities and total exposure



Building Damage

General Building Stock Damage

Hazus estimates that about 1,914 buildings will be at least moderately damaged. This is over 53% of the total number of buildings in the scenario. There are an estimated 229 buildings that will be completely destroyed. The definition of the 'damage states' is provided in Volume 1: Chapter 5 of the Hazus Flood Technical Manual. Table 3 below summarizes the expected damage by general occupancy for the buildings in the region. Table 4 summarizes the expected damage by general building type.

Total Economic Loss (1 dot = $300K) Overview Map

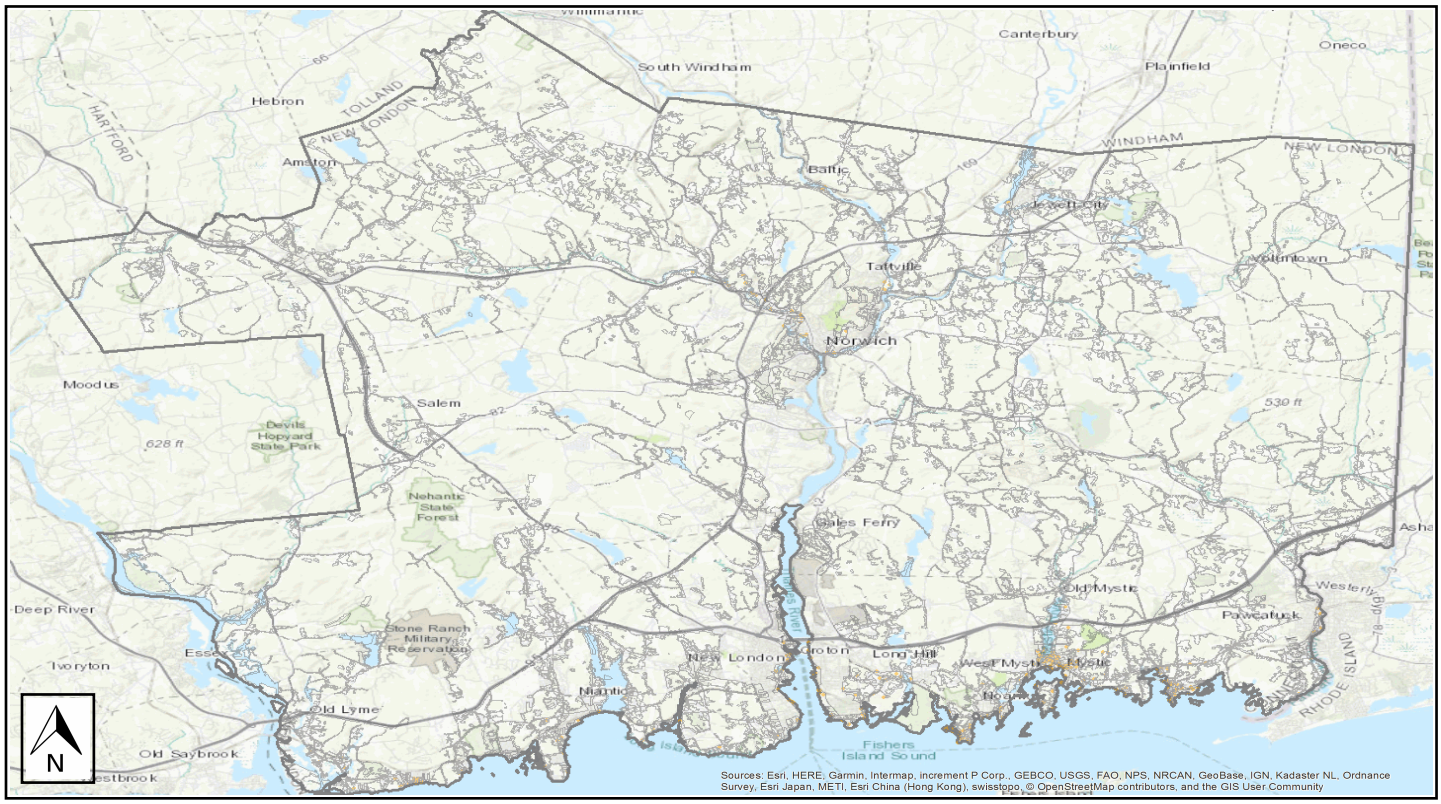


Table 3: Expected Building Damage by Occupancy

	1-10		11-20		21-30		31-40		41-50		Substantially	
Occupancy	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**
Agriculture	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Commercial	3	25.00	9	75.00	0	0.00	0	0.00	0	0.00	0	0.00
Education	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Government	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Industrial	0	0.00	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00
Religion	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Residential	155	7.53	858	41.67	542	26.32	207	10.05	68	3.30	229	11.12
Total	**158**		**868**		**542**		**207**		**68**		**229**	

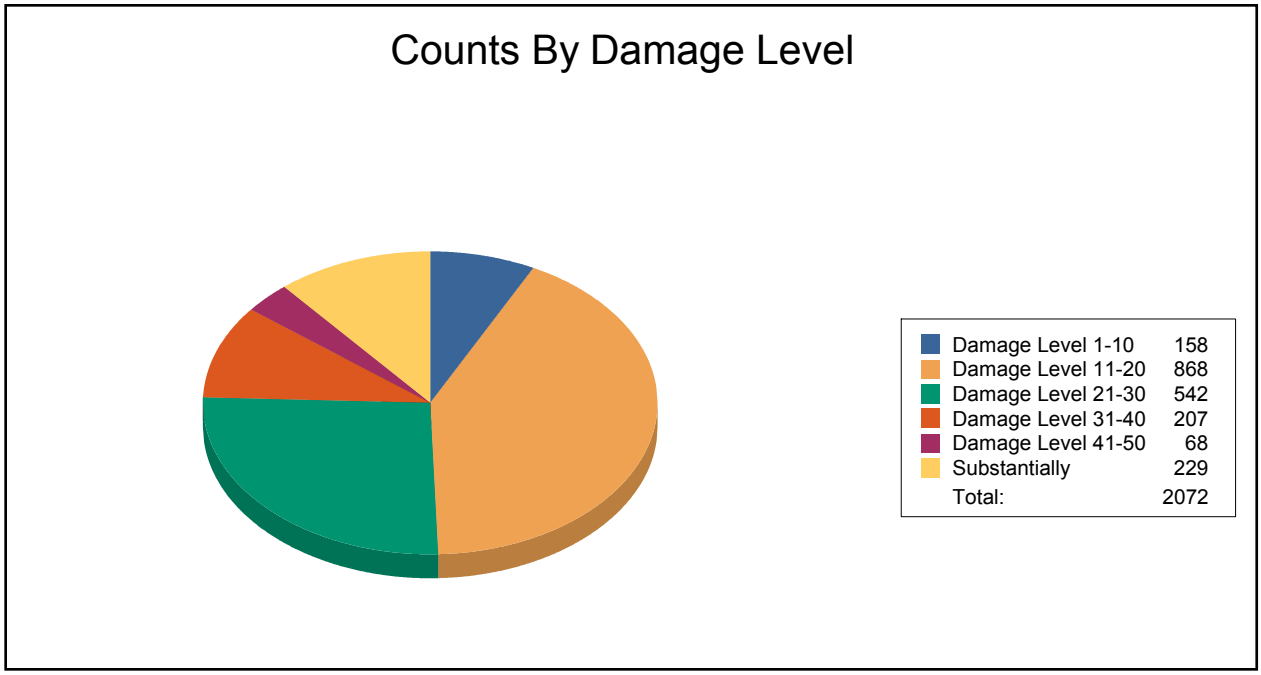


Table 4: Expected Building Damage by Building Type

Building Type	1-10		11-20		21-30		31-40		41-50		Substantially	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Concrete	0	0	1	100	0	0	0	0	0	0	0	0
ManufHousing	0	0	0	0	0	0	0	0	0	0	2	100
Masonry	2	17	6	50	4	33	0	0	0	0	0	0
Steel	3	30	7	70	0	0	0	0	0	0	0	0
Wood	151	7	849	42	538	26	207	10	68	3	227	11

Essential Facility Damage

Before the flood analyzed in this scenario, the region had 419 hospital beds available for use. On the day of the scenario flood event, the model estimates that 419 hospital beds are available in the region.

Table 5: Expected Damage to Essential Facilities

		# Facilities		
Classification	Total	At Least Moderate	At Least Substantial	Loss of Use
Fire Stations	49	4	1	5
Hospitals	2	0	0	0
Police Stations	25	3	0	3
Schools	129	1	1	2

If this report displays all zeros or is blank, two possibilities can explain this.

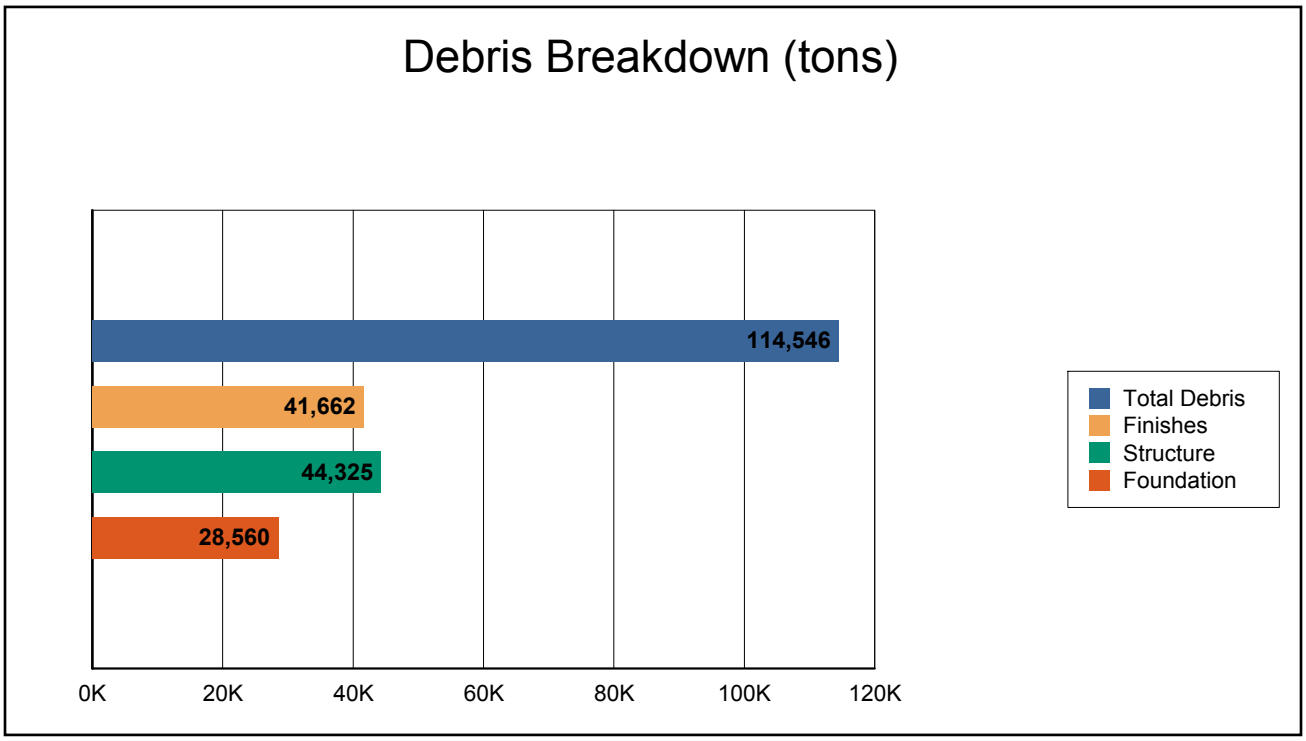
(1) None of your facilities were flooded. This can be checked by mapping the inventory data on the depth grid.

(2) The analysis was not run. This can be tested by checking the run box on the Analysis Menu and seeing if a message box asks you to replace the existing results.

Induced Flood Damage

Debris Generation

Hazus estimates the amount of debris that will be generated by the flood. The model breaks debris into three general categories: 1) Finishes (dry wall, insulation, etc.), 2) Structural (wood, brick, etc.) and 3) Foundations (concrete slab, concrete block, rebar, etc.). This distinction is made because of the different types of material handling equipment required to handle the debris.

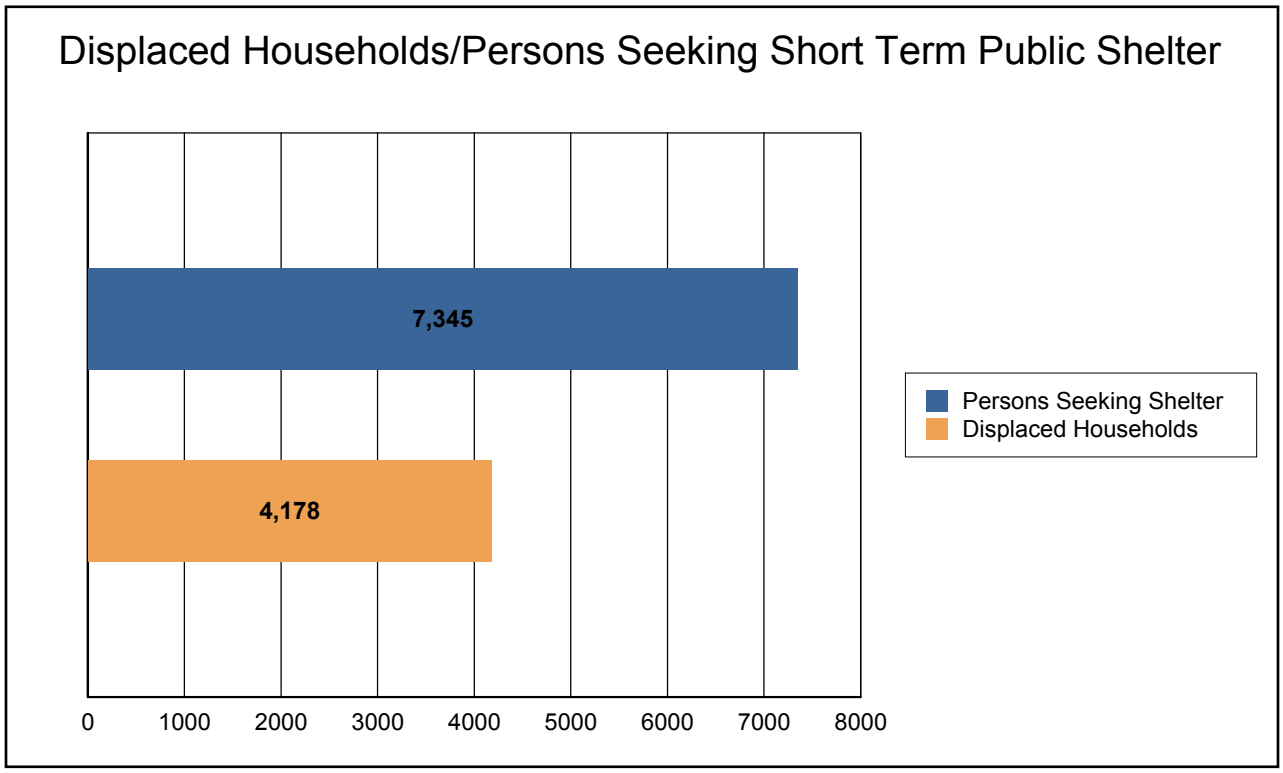


The model estimates that a total of 114,546 tons of debris will be generated. Of the total amount, Finishes comprises 36% of the total, Structure comprises 39% of the total. If the debris tonnage is converted into an estimated number of truckloads, it will require 4,582 truckloads (@25 tons/truck) to remove the debris generated by the flood.

Social Impact

Shelter Requirements

Hazus estimates the number of households that are expected to be displaced from their homes due to the flood and the associated potential evacuation. Hazus also estimates those displaced people that will require accommodations in temporary public shelters. The model estimates 4,178 households will be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 7,345 people (out of a total population of 274,055) will seek temporary shelter in public shelters.



Economic Loss

The total economic loss estimated for the flood is 1,220.85 million dollars, which represents 7.67 % of the total replacement value of the scenario buildings.

Building-Related Losses

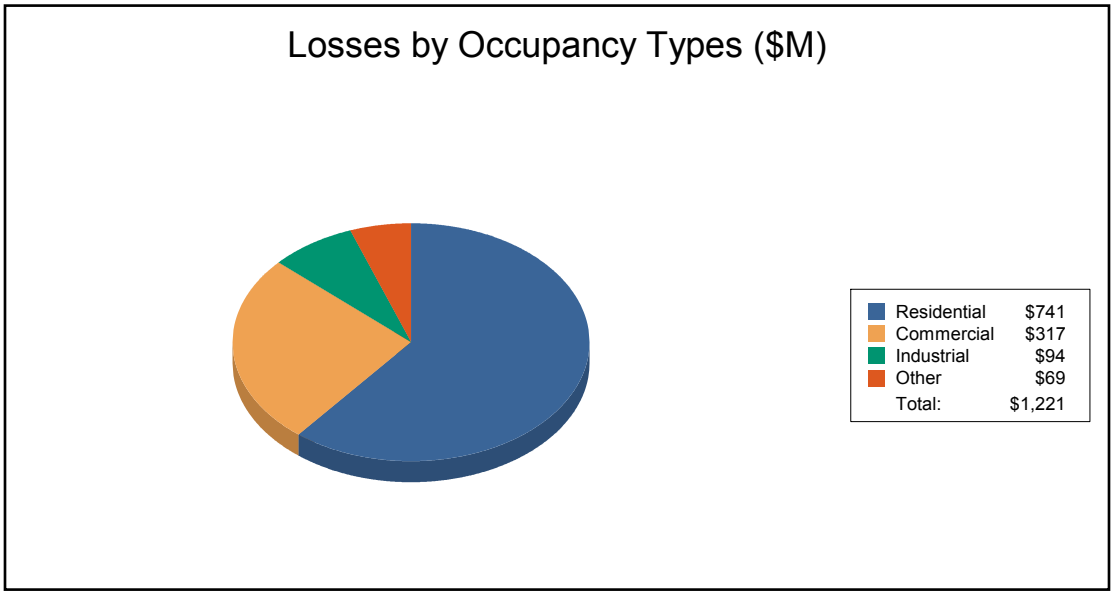
The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the flood. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the flood.

The total building-related losses were 1,215.84 million dollars. 0% of the estimated losses were related to the business interruption of the region. The residential occupancies made up 60.70% of the total loss. Table 6 below provides a summary of the losses associated with the building damage.

Table 6: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Building Loss						
	Building	405.43	84.96	25.59	10.28	526.26
	Content	334.84	226.56	60.07	56.47	677.93
	Inventory	0.00	3.46	7.82	0.36	11.65
	Subtotal	**740.27**	**314.97**	**93.48**	**67.12**	**1,215.84**
Business Interruption						
	Income	0.04	1.04	0.01	0.06	1.13
	Relocation	0.49	0.13	0.01	0.03	0.66
	Rental Income	0.16	0.08	0.00	0.00	0.24
	Wage	0.12	0.96	0.01	1.88	2.98
	Subtotal	**0.81**	**2.21**	**0.02**	**1.97**	**5.01**
ALL	**Total**	**741.08**	**317.18**	**93.51**	**69.09**	**1,220.85**



Appendix A: County Listing for the Region

Connecticut

- New London

Appendix B: Regional Population and Building Value Data

	Population	Building Value (thousands of dollars)		
		Residential	Non-Residential	Total
Connecticut				
New London	274,055	28,202,956	8,383,923	36,586,879
Total	**274,055**	**28,202,956**	**8,383,923**	**36,586,879**
Total Study Region	**274,055**	**28,202,956**	**8,383,923**	**36,586,879**

Hazus-MH: Flood Global Risk Report

Region Name: CTTIndV4100yrOldDG

Flood Scenario: YR100DGRun

Print Date: Monday, October 01, 2018

Disclaimer:
This version of Hazus utilizes 2010 Census Data.
Totals only reflect data for those census tracts/blocks included in the user's study region.

The estimates of social and economic impacts contained in this report were produced using Hazus loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific Flood. These results can be improved by using enhanced inventory data and flood hazard information.

FEMA

RiskMAP
Increasing Resilience Together

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General Description of the Region

Hazus is a regional multi-hazard loss estimation model that was developed by the Federal Emergency Management Agency (FEMA) and the National Institute of Building Sciences (NIBS). The primary purpose of Hazus is to provide a methodology and software application to develop multi-hazard losses at a regional scale. These loss estimates would be used primarily by local, state and regional officials to plan and stimulate efforts to reduce risks from multi-hazards and to prepare for emergency response and recovery.

The flood loss estimates provided in this report were based on a region that included 1 county(ies) from the following state(s):

- Connecticut

Note:
Appendix A contains a complete listing of the counties contained in the region.

The geographical size of the region is 417 square miles and contains 3,226 census blocks. The region contains over 54 thousand households and has a total population of 152,691 people (2010 Census Bureau data). The distribution of population by State and County for the study region is provided in Appendix B.

There are an estimated 51,295 buildings in the region with a total building replacement value (excluding contents) of 18,429 million dollars (2010 dollars). Approximately 91.58% of the buildings (and 82.14% of the building value) are associated with residential housing.

Building Inventory

General Building Stock

Hazus estimates that there are 51,295 buildings in the region which have an aggregate total replacement value of 18,429 million (2014 dollars). Table 1 and Table 2 present the relative distribution of the value with respect to the general occupancies by Study Region and Scenario respectively. Appendix B provides a general distribution of the building value by State and County.

Table 1
Building Exposure by Occupancy Type for the Study Region

Occupancy	Exposure ($1000)	Percent of Total
Residential	15,136,568	82.1%
Commercial	1,984,893	10.8%
Industrial	606,700	3.3%
Agricultural	94,839	0.5%
Religion	198,207	1.1%
Government	94,655	0.5%
Education	312,753	1.7%
Total	**18,428,615**	**100.0%**

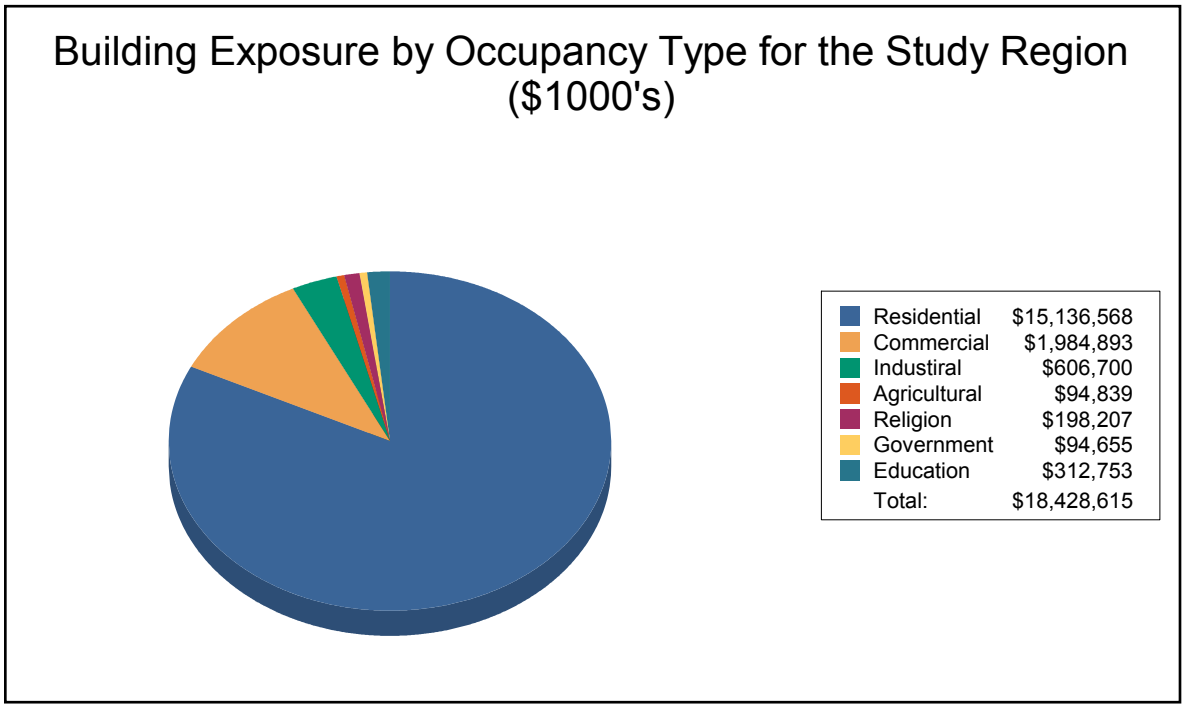
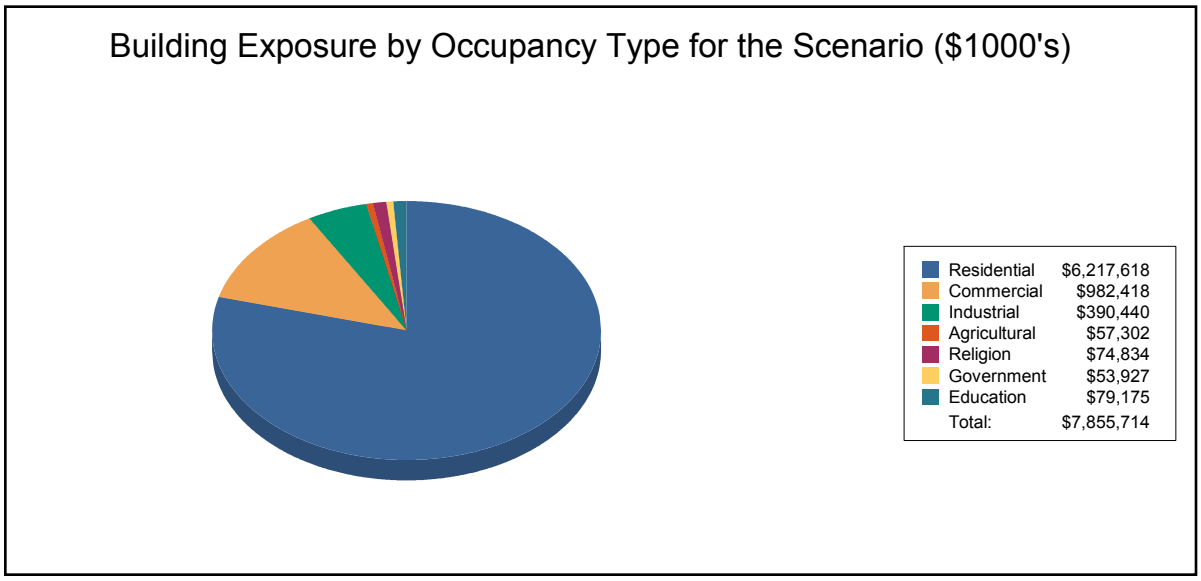


Table 2
Building Exposure by Occupancy Type for the Scenario

Occupancy	Exposure ($1000)	Percent of Total
Residential	6,217,618	79.1%
Commercial	982,418	12.5%
Industrial	390,440	5.0%
Agricultural	57,302	0.7%
Religion	74,834	1.0%
Government	53,927	0.7%
Education	79,175	1.0%
Total	**7,855,714**	**100.0%**



Essential Facility Inventory

For essential facilities, there are 4 hospitals in the region with a total bed capacity of 224 beds.
There are 66 schools, 22 fire stations, 10 police stations and 3 emergency operation center.

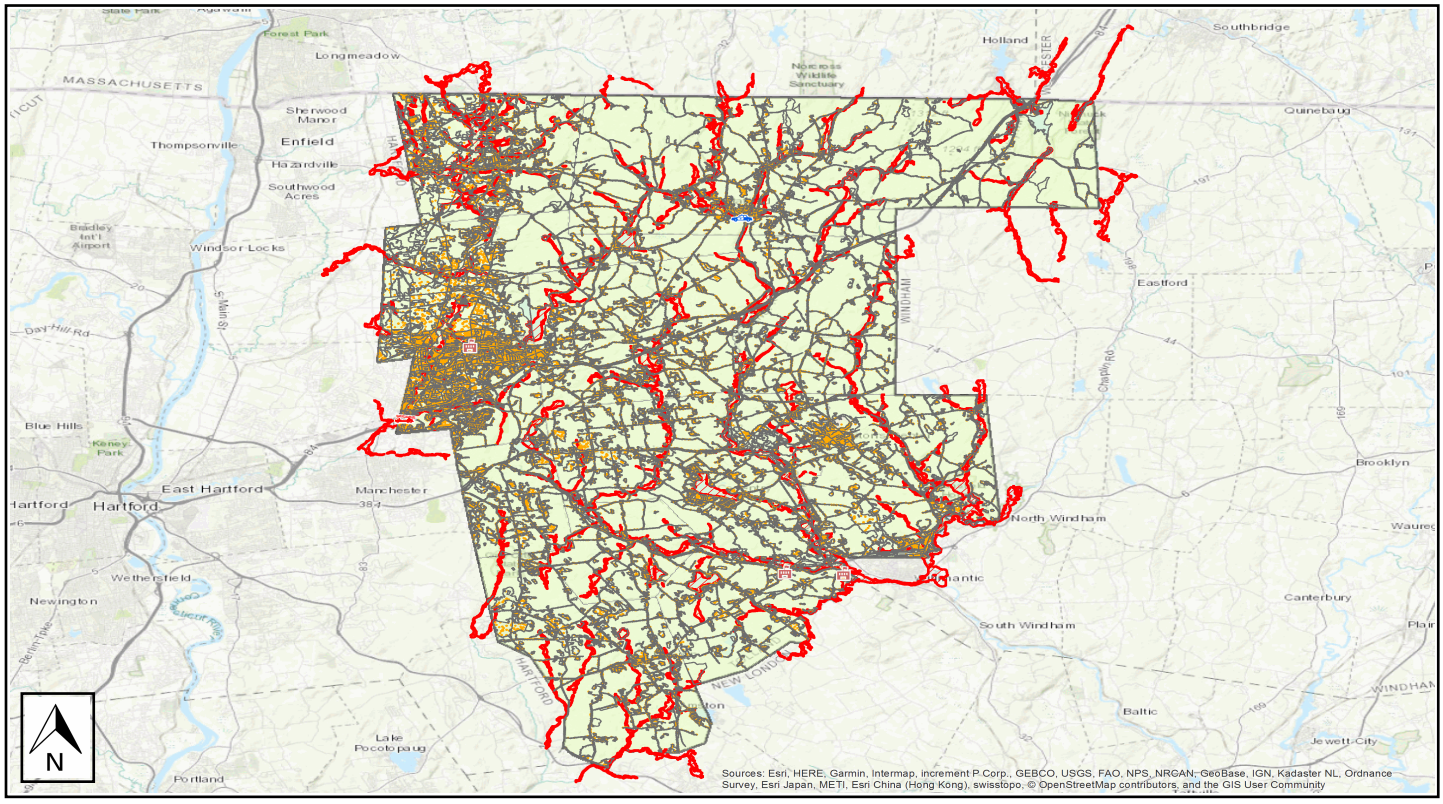
Flood Scenario Parameters

Hazus used the following set of information to define the flood parameters for the flood loss estimate provided in this report.

Study Region Name:	CTTIndV4100yrOldDG
Scenario Name:	YR100DGRun
Return Period Analyzed:	100
Analysis Options Analyzed:	No What-Ifs

Study Region Overview Map

Illustrating scenario flood extent, as well as exposed essential facilities and total exposure



Building Damage

General Building Stock Damage

Hazus estimates that about 221 buildings will be at least moderately damaged. This is over 86% of the total number of buildings in the scenario. There are an estimated 5 buildings that will be completely destroyed. The definition of the 'damage states' is provided in Volume 1: Chapter 5 of the Hazus Flood Technical Manual. Table 3 below summarizes the expected damage by general occupancy for the buildings in the region. Table 4 summarizes the expected damage by general building type.

Total Economic Loss (1 dot = $300K) Overview Map

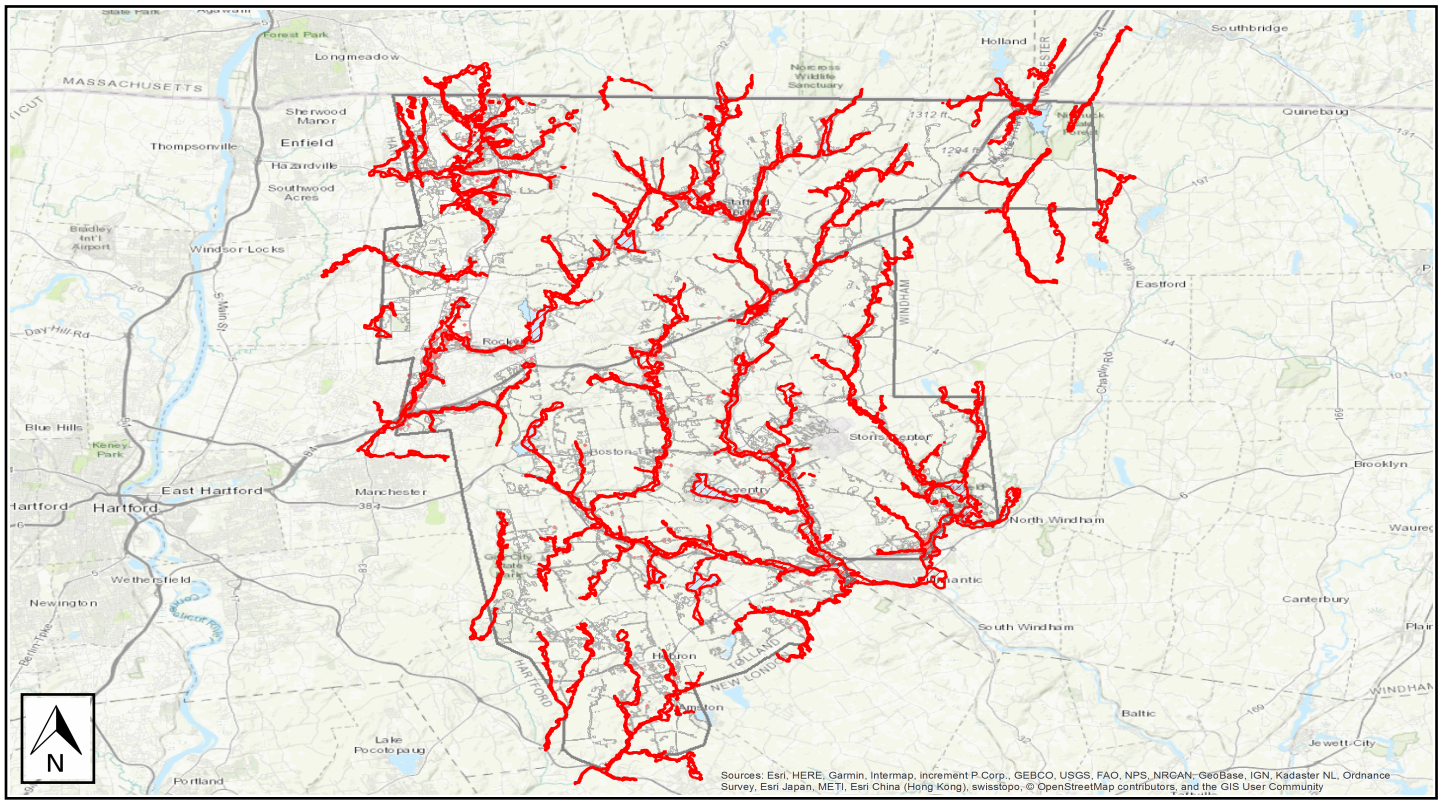


Table 3: Expected Building Damage by Occupancy

	1-10		11-20		21-30		31-40		41-50		Substantially	
Occupancy	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**
Agriculture	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Commercial	1	16.67	5	83.33	0	0.00	0	0.00	0	0.00	0	0.00
Education	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Government	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Industrial	0	0.00	1	25.00	1	25.00	0	0.00	0	0.00	2	50.00
Religion	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Residential	140	39.77	139	39.49	45	12.78	18	5.11	7	1.99	3	0.85
Total	**141**		**145**		**46**		**18**		**7**		**5**	

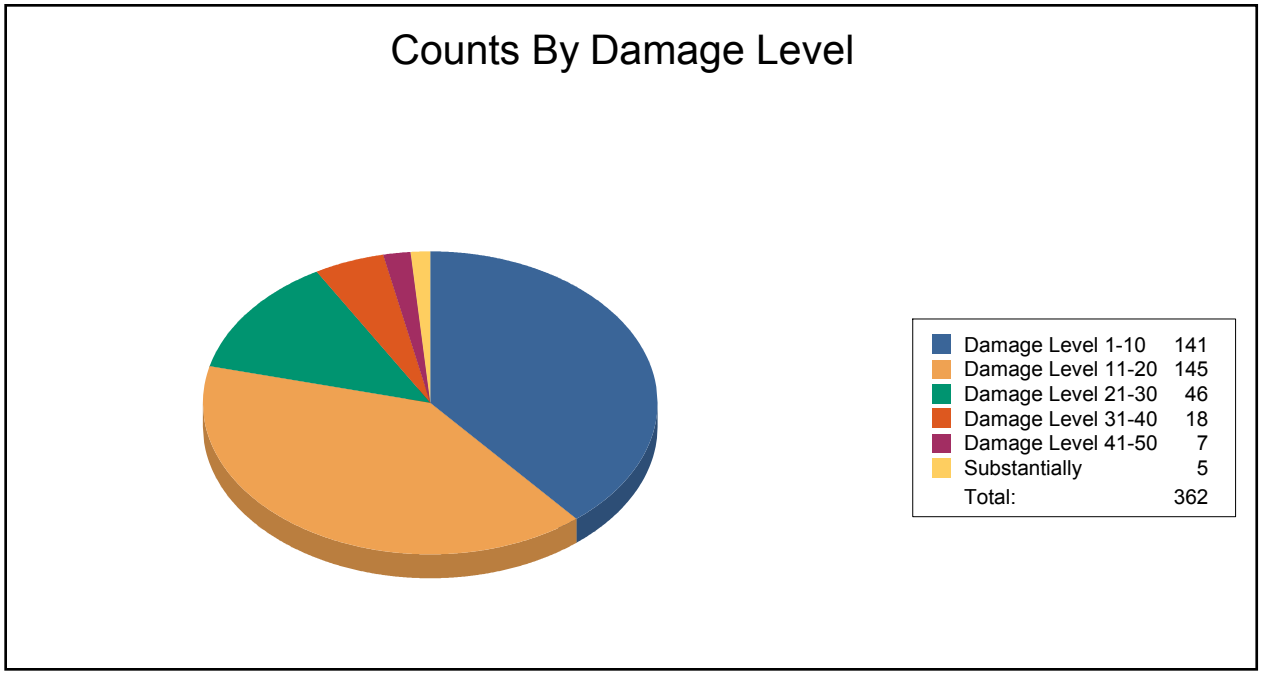


Table 4: Expected Building Damage by Building Type

Building Type	1-10		11-20		21-30		31-40		41-50		Substantially	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Concrete	0	0	0	0	0	0	0	0	0	0	0	0
ManufHousing	0	0	0	0	0	0	0	0	0	0	1	100
Masonry	2	29	4	57	1	14	0	0	0	0	0	0
Steel	1	17	3	50	1	17	0	0	0	0	1	17
Wood	138	40	137	40	44	13	18	5	7	2	2	1

Essential Facility Damage

Before the flood analyzed in this scenario, the region had 224 hospital beds available for use. On the day of the scenario flood event, the model estimates that 224 hospital beds are available in the region.

Table 5: Expected Damage to Essential Facilities

		# Facilities		
Classification	Total	At Least Moderate	At Least Substantial	Loss of Use
Fire Stations	22	1	0	1
Hospitals	4	0	0	0
Police Stations	10	1	0	1
Schools	66	2	1	2

If this report displays all zeros or is blank, two possibilities can explain this.

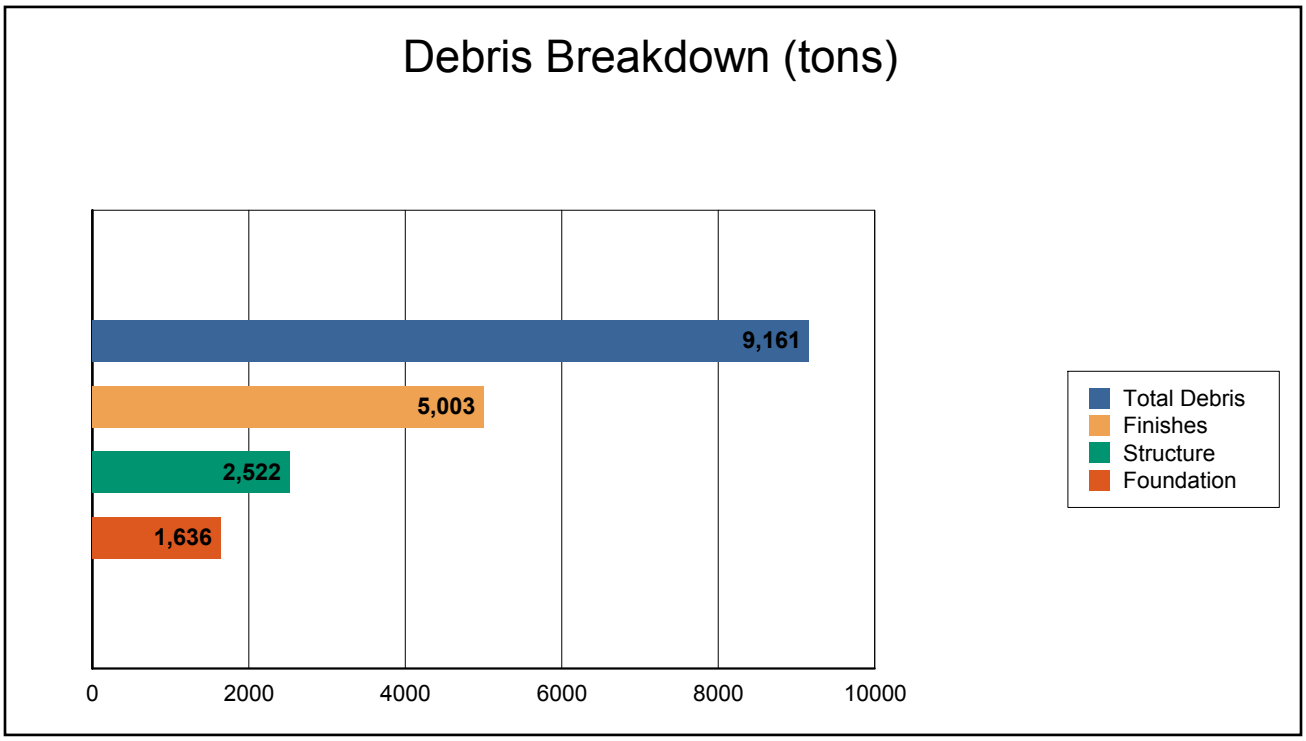
(1) None of your facilities were flooded. This can be checked by mapping the inventory data on the depth grid.

(2) The analysis was not run. This can be tested by checking the run box on the Analysis Menu and seeing if a message box asks you to replace the existing results.

Induced Flood Damage

Debris Generation

Hazus estimates the amount of debris that will be generated by the flood. The model breaks debris into three general categories: 1) Finishes (dry wall, insulation, etc.), 2) Structural (wood, brick, etc.) and 3) Foundations (concrete slab, concrete block, rebar, etc.). This distinction is made because of the different types of material handling equipment required to handle the debris.

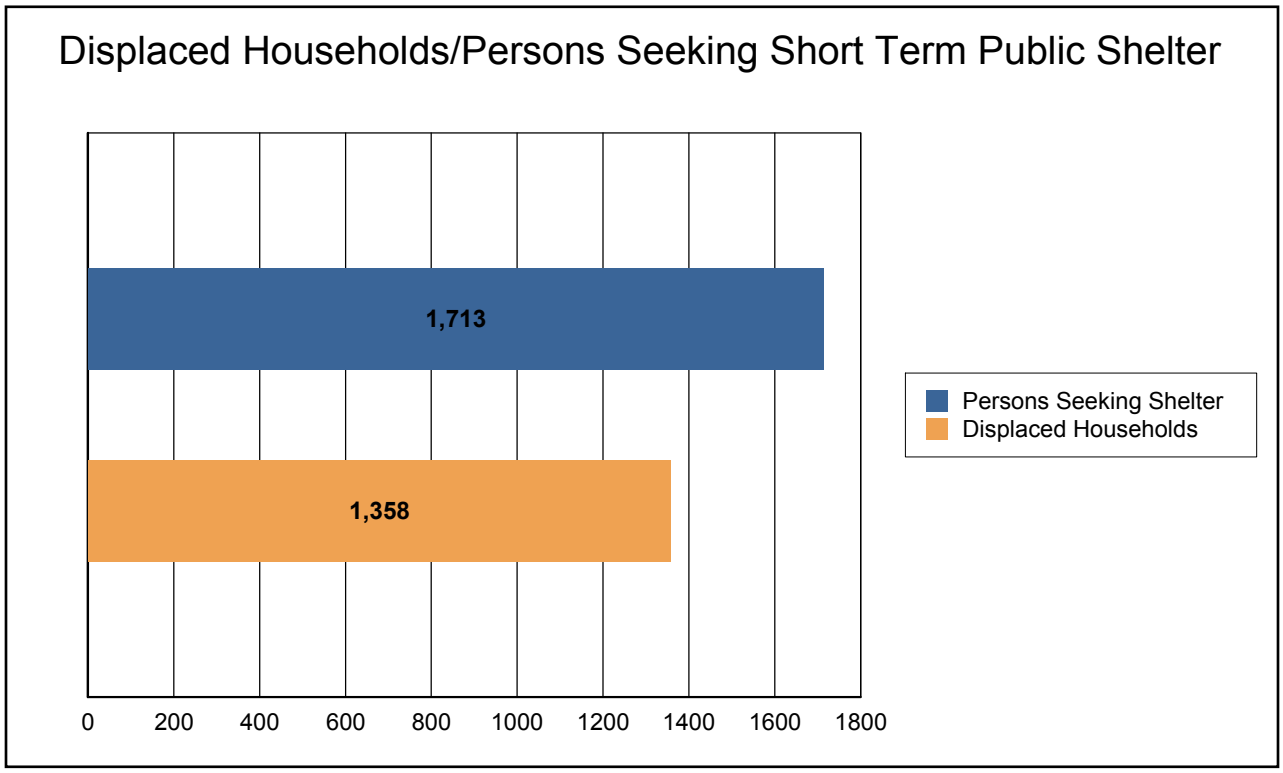


The model estimates that a total of 9,161 tons of debris will be generated. Of the total amount, Finishes comprises 55% of the total, Structure comprises 28% of the total. If the debris tonnage is converted into an estimated number of truckloads, it will require 366 truckloads (@25 tons/truck) to remove the debris generated by the flood.

Social Impact

Shelter Requirements

Hazus estimates the number of households that are expected to be displaced from their homes due to the flood and the associated potential evacuation. Hazus also estimates those displaced people that will require accommodations in temporary public shelters. The model estimates 1,358 households will be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 1,713 people (out of a total population of 152,691) will seek temporary shelter in public shelters.



Economic Loss

The total economic loss estimated for the flood is 304.14 million dollars, which represents 3.87 % of the total replacement value of the scenario buildings.

Building-Related Losses

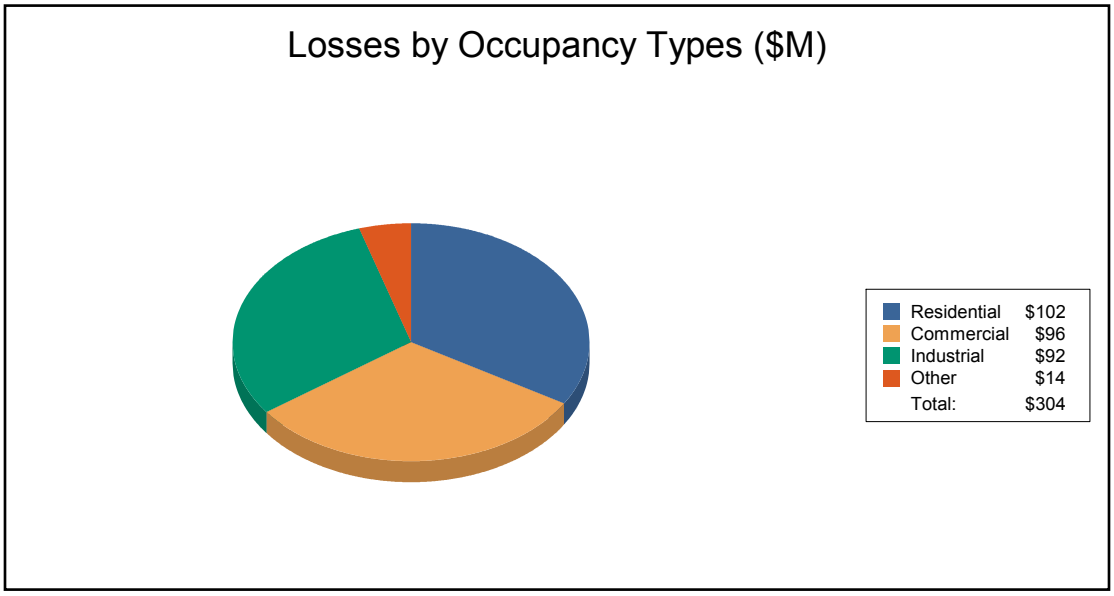
The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the flood. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the flood.

The total building-related losses were 302.90 million dollars. 0% of the estimated losses were related to the business interruption of the region. The residential occupancies made up 33.51% of the total loss. Table 6 below provides a summary of the losses associated with the building damage.

Table 6: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Building Loss						
	Building	68.11	24.49	25.36	2.10	120.06
	Content	33.65	69.94	57.95	11.39	172.93
	Inventory	0.00	1.01	8.79	0.11	9.91
	Subtotal	**101.75**	**95.45**	**92.10**	**13.60**	**302.90**
Business Interruption						
	Income	0.02	0.29	0.00	0.01	0.33
	Relocation	0.04	0.04	0.00	0.01	0.09
	Rental Income	0.04	0.02	0.00	0.00	0.06
	Wage	0.06	0.29	0.01	0.40	0.76
	Subtotal	**0.16**	**0.64**	**0.02**	**0.42**	**1.24**
ALL	**Total**	**101.92**	**96.09**	**92.12**	**14.02**	**304.14**



Appendix A: County Listing for the Region

Connecticut

- Tolland

Appendix B: Regional Population and Building Value Data

	Population	Building Value (thousands of dollars)		
		Residential	Non-Residential	Total
Connecticut				
Tolland	152,691	15,136,568	3,292,047	18,428,615
Total	**152,691**	**15,136,568**	**3,292,047**	**18,428,615**
Total Study Region	**152,691**	**15,136,568**	**3,292,047**	**18,428,615**

Hazus-MH: Flood Global Risk Report

Region Name: CT_Wndhm_FLD_100YR

Flood Scenario: Old100YrDG

Print Date: Tuesday, October 02, 2018

Disclaimer:
This version of Hazus utilizes 2010 Census Data.
Totals only reflect data for those census tracts/blocks included in the user's study region.

The estimates of social and economic impacts contained in this report were produced using Hazus loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific Flood. These results can be improved by using enhanced inventory data and flood hazard information.

Table of Contents

General Description of the Region

Hazus is a regional multi-hazard loss estimation model that was developed by the Federal Emergency Management Agency (FEMA) and the National Institute of Building Sciences (NIBS). The primary purpose of Hazus is to provide a methodology and software application to develop multi-hazard losses at a regional scale. These loss estimates would be used primarily by local, state and regional officials to plan and stimulate efforts to reduce risks from multi-hazards and to prepare for emergency response and recovery.

The flood loss estimates provided in this report were based on a region that included 1 county(ies) from the following state(s):

- Connecticut

Note:
Appendix A contains a complete listing of the counties contained in the region.

The geographical size of the region is 521 square miles and contains 3,727 census blocks. The region contains over 45 thousand households and has a total population of 118,428 people (2010 Census Bureau data). The distribution of population by State and County for the study region is provided in Appendix B.

There are an estimated 43,914 buildings in the region with a total building replacement value (excluding contents) of 14,032 million dollars (2010 dollars). Approximately 90.24% of the buildings (and 74.89% of the building value) are associated with residential housing.

Building Inventory

General Building Stock

Hazus estimates that there are 43,914 buildings in the region which have an aggregate total replacement value of 14,032 million (2014 dollars). Table 1 and Table 2 present the relative distribution of the value with respect to the general occupancies by Study Region and Scenario respectively. Appendix B provides a general distribution of the building value by State and County.

Table 1
Building Exposure by Occupancy Type for the Study Region

Occupancy	Exposure ($1000)	Percent of Total
Residential	10,508,194	74.9%
Commercial	1,907,736	13.6%
Industrial	950,115	6.8%
Agricultural	128,998	0.9%
Religion	204,545	1.5%
Government	133,498	1.0%
Education	198,503	1.4%
Total	**14,031,589**	**100.0%**

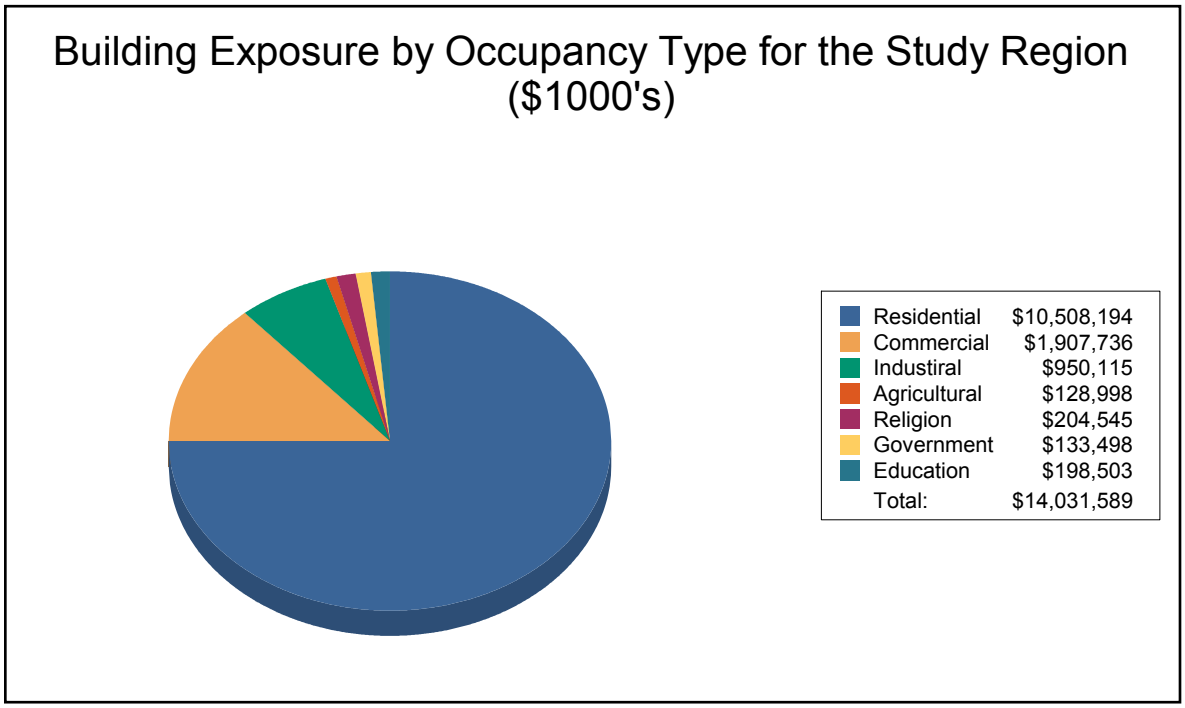
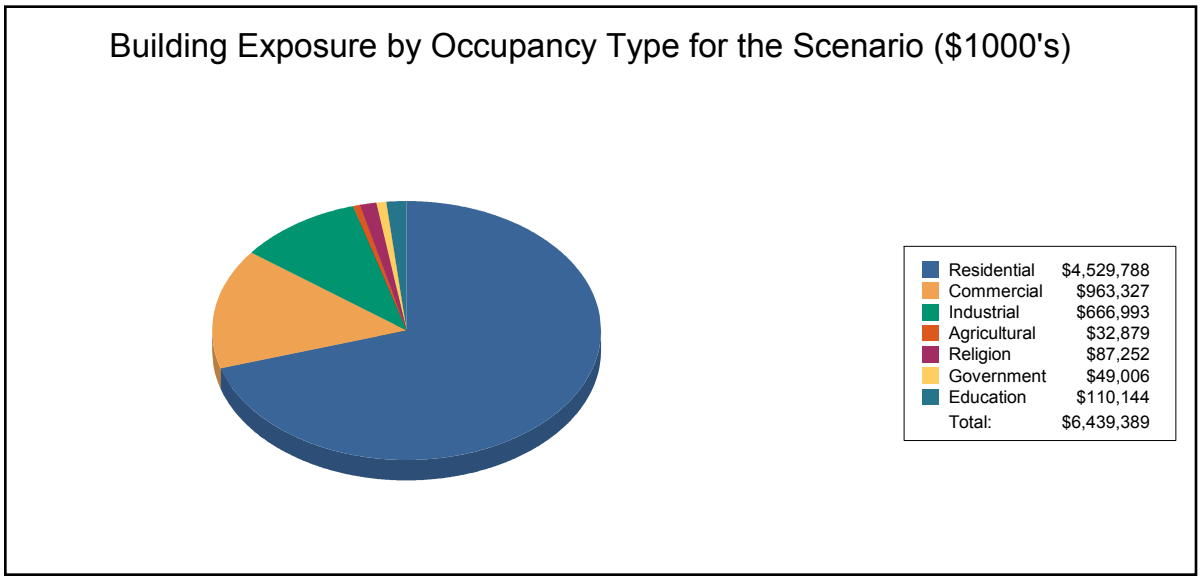


Table 2
Building Exposure by Occupancy Type for the Scenario

Occupancy	Exposure ($1000)	Percent of Total
Residential	4,529,788	70.3%
Commercial	963,327	15.0%
Industrial	666,993	10.4%
Agricultural	32,879	0.5%
Religion	87,252	1.4%
Government	49,006	0.8%
Education	110,144	1.7%
Total	**6,439,389**	**100.0%**



Essential Facility Inventory

For essential facilities, there are 2 hospitals in the region with a total bed capacity of 148 beds.
There are 56 schools, 27 fire stations, 10 police stations and no emergency operation centers.

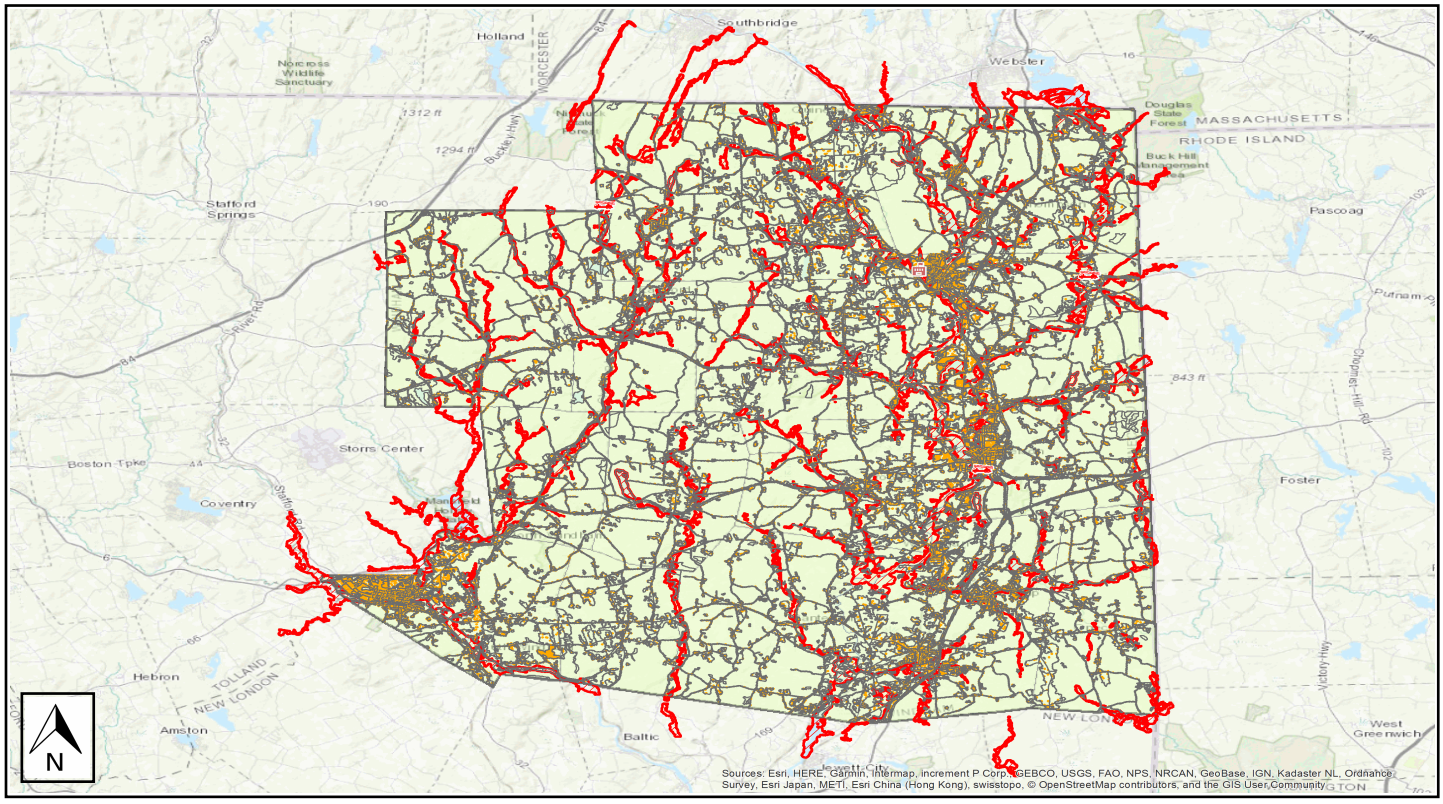
Flood Scenario Parameters

Hazus used the following set of information to define the flood parameters for the flood loss estimate provided in this report.

Study Region Name:	CT_Wndhm_FLD_100YR
Scenario Name:	Old100YrDG
Return Period Analyzed:	100
Analysis Options Analyzed:	No What-Ifs

Study Region Overview Map

Illustrating scenario flood extent, as well as exposed essential facilities and total exposure



Building Damage

General Building Stock Damage

Hazus estimates that about 343 buildings will be at least moderately damaged. This is over 68% of the total number of buildings in the scenario. There are an estimated 41 buildings that will be completely destroyed. The definition of the 'damage states' is provided in Volume 1: Chapter 5 of the Hazus Flood Technical Manual. Table 3 below summarizes the expected damage by general occupancy for the buildings in the region. Table 4 summarizes the expected damage by general building type.

Total Economic Loss (1 dot = $300K) Overview Map

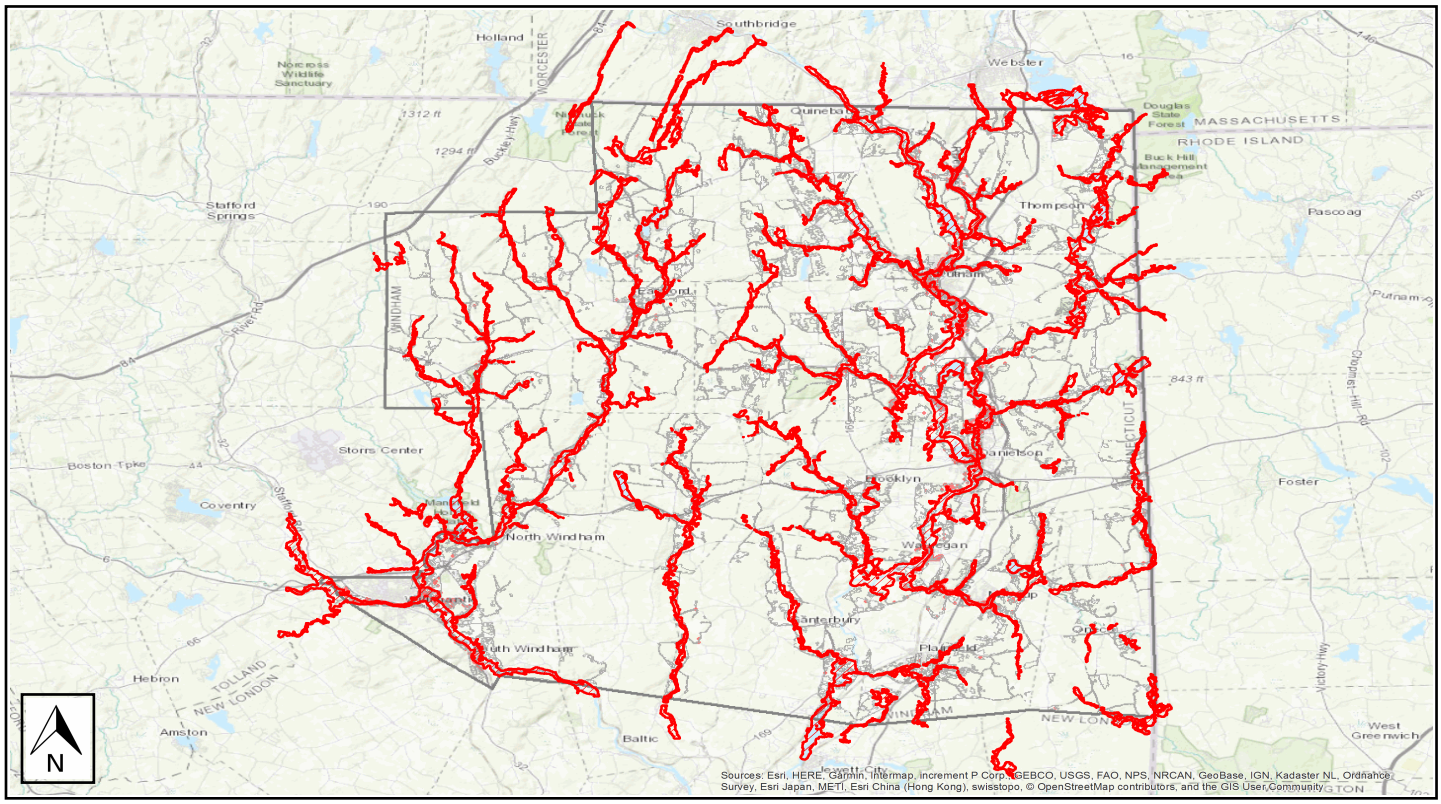


Table 3: Expected Building Damage by Occupancy

	1-10		11-20		21-30		31-40		41-50		Substantially	
Occupancy	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**
Agriculture	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Commercial	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Education	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Government	0	0.00	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00
Industrial	0	0.00	1	50.00	0	0.00	0	0.00	1	50.00	0	0.00
Religion	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Residential	67	16.46	111	27.27	112	27.52	51	12.53	25	6.14	41	10.07
Total	**67**		**113**		**112**		**51**		**26**		**41**	

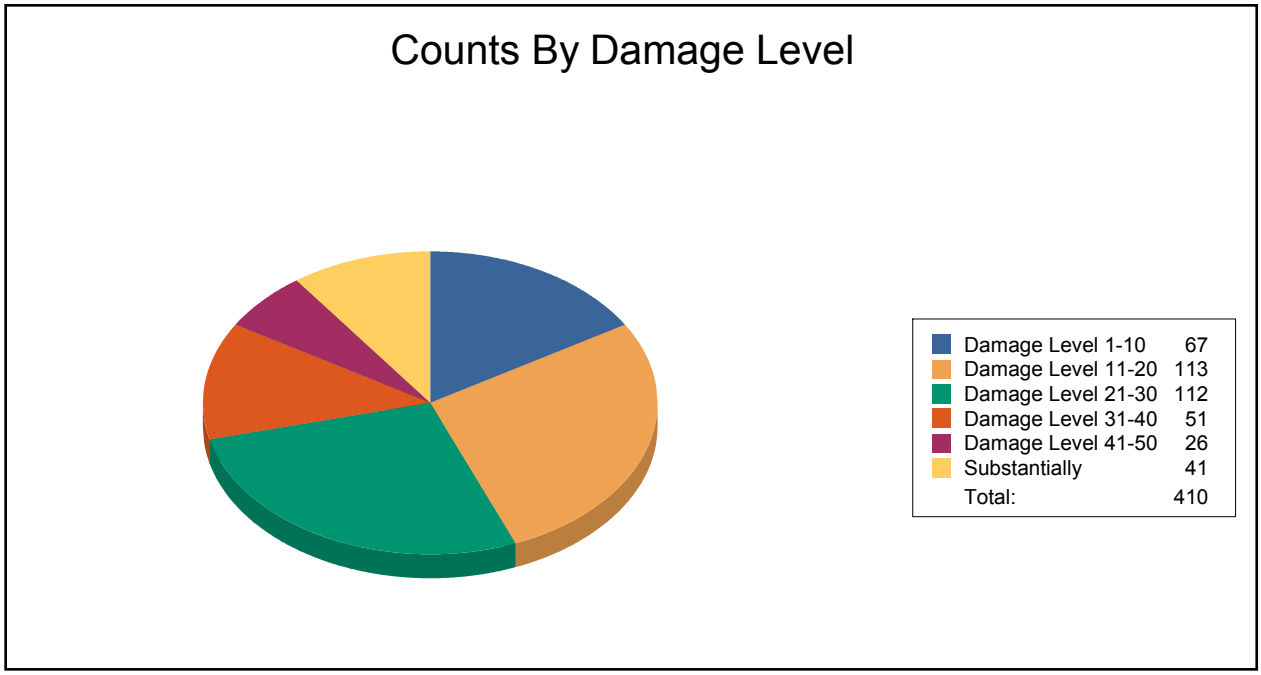


Table 4: Expected Building Damage by Building Type

Building Type	1-10		11-20		21-30		31-40		41-50		Substantially	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Concrete	0	0	0	0	0	0	0	0	0	0	0	0
ManufHousing	0	0	0	0	0	0	0	0	0	0	3	100
Masonry	1	33	1	33	1	33	0	0	0	0	0	0
Steel	0	0	2	67	0	0	0	0	1	33	0	0
Wood	66	17	109	27	111	28	51	13	25	6	38	10

Essential Facility Damage

Before the flood analyzed in this scenario, the region had 148 hospital beds available for use. On the day of the scenario flood event, the model estimates that 148 hospital beds are available in the region.

Table 5: Expected Damage to Essential Facilities

		# Facilities		
Classification	Total	At Least Moderate	At Least Substantial	Loss of Use
Fire Stations	27	3	0	2
Hospitals	2	0	0	0
Police Stations	10	0	0	0
Schools	56	2	0	2

If this report displays all zeros or is blank, two possibilities can explain this.

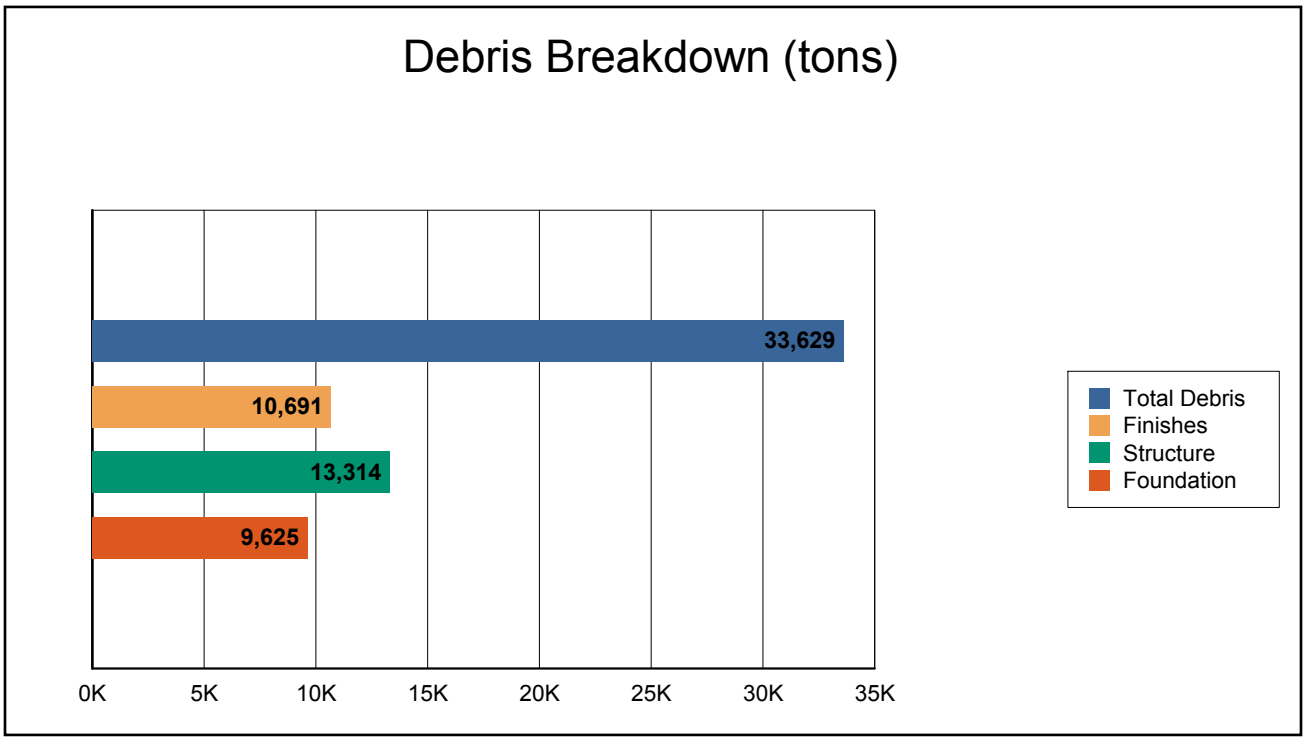
(1) None of your facilities were flooded. This can be checked by mapping the inventory data on the depth grid.

(2) The analysis was not run. This can be tested by checking the run box on the Analysis Menu and seeing if a message box asks you to replace the existing results.

Induced Flood Damage

Debris Generation

Hazus estimates the amount of debris that will be generated by the flood. The model breaks debris into three general categories: 1) Finishes (dry wall, insulation, etc.), 2) Structural (wood, brick, etc.) and 3) Foundations (concrete slab, concrete block, rebar, etc.). This distinction is made because of the different types of material handling equipment required to handle the debris.

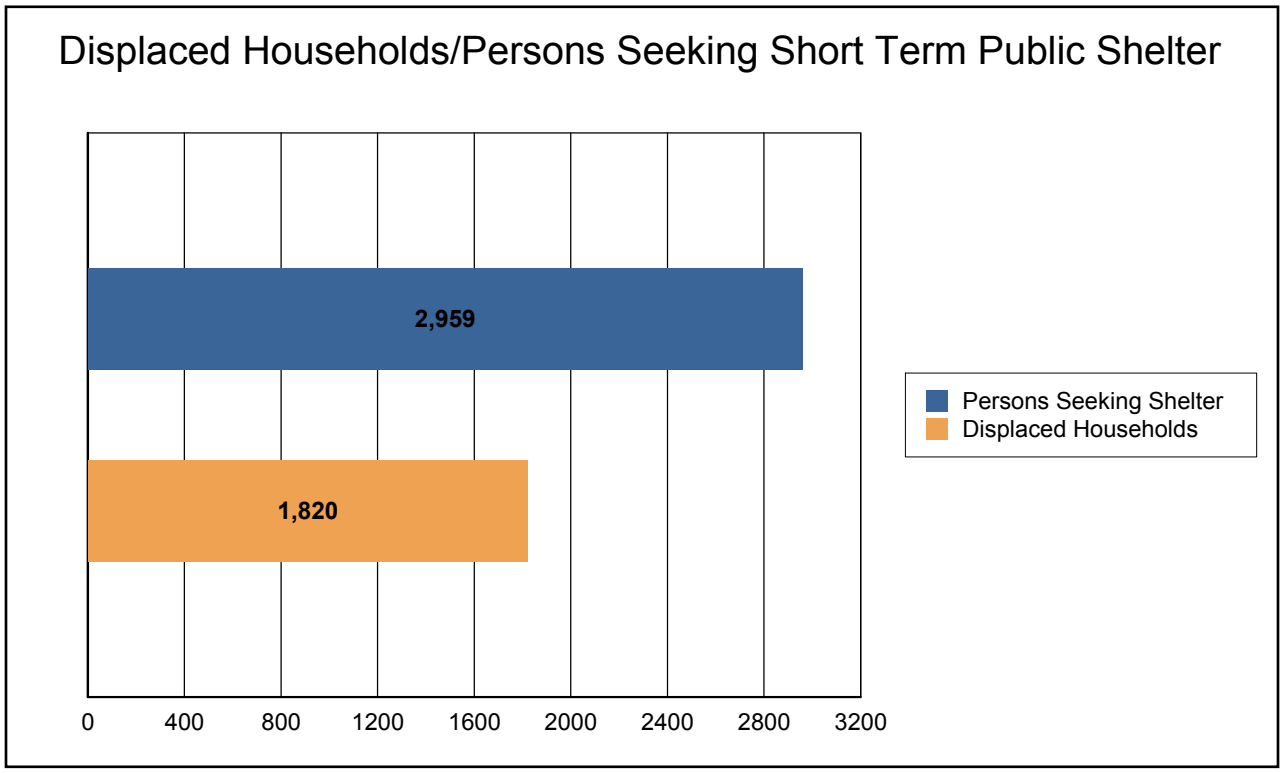


The model estimates that a total of 33,629 tons of debris will be generated. Of the total amount, Finishes comprises 32% of the total, Structure comprises 40% of the total. If the debris tonnage is converted into an estimated number of truckloads, it will require 1,345 truckloads (@25 tons/truck) to remove the debris generated by the flood.

Social Impact

Shelter Requirements

Hazus estimates the number of households that are expected to be displaced from their homes due to the flood and the associated potential evacuation. Hazus also estimates those displaced people that will require accommodations in temporary public shelters. The model estimates 1,820 households will be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 2,959 people (out of a total population of 118,428) will seek temporary shelter in public shelters.



Economic Loss

The total economic loss estimated for the flood is 461.43 million dollars, which represents 7.17 % of the total replacement value of the scenario buildings.

Building-Related Losses

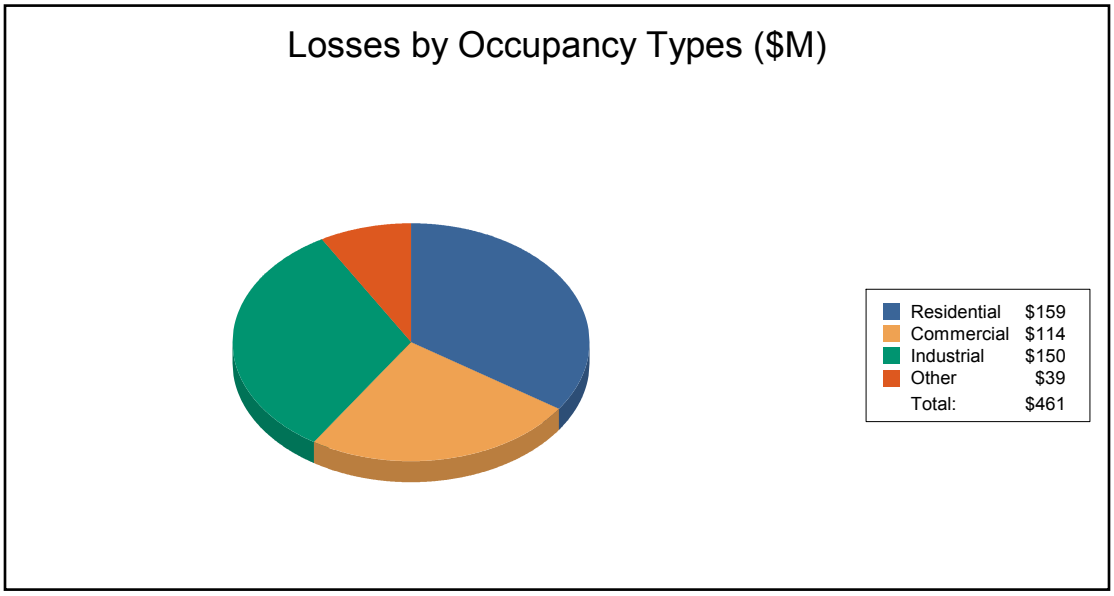
The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the flood. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the flood.

The total building-related losses were 459.62 million dollars. 0% of the estimated losses were related to the business interruption of the region. The residential occupancies made up 34.50% of the total loss. Table 6 below provides a summary of the losses associated with the building damage.

Table 6: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Building Loss						
	Building	104.66	30.09	40.84	6.64	182.23
	Content	54.47	80.94	97.89	30.80	264.10
	Inventory	0.00	2.20	10.94	0.17	13.30
	Subtotal	**159.13**	**113.23**	**149.66**	**37.61**	**459.62**
Business Interruption						
	Income	0.00	0.19	0.01	0.03	0.23
	Relocation	0.05	0.03	0.01	0.02	0.11
	Rental Income	0.02	0.02	0.00	0.00	0.04
	Wage	0.00	0.26	0.01	1.16	1.43
	Subtotal	**0.08**	**0.49**	**0.03**	**1.21**	**1.81**
ALL	**Total**	**159.21**	**113.72**	**149.69**	**38.82**	**461.43**



Appendix A: County Listing for the Region

Connecticut

- Windham

Appendix B: Regional Population and Building Value Data

	Population	Building Value (thousands of dollars)		
		Residential	Non-Residential	Total
Connecticut				
Windham	118,428	10,508,194	3,523,395	14,031,589
Total	**118,428**	**10,508,194**	**3,523,395**	**14,031,589**
Total Study Region	**118,428**	**10,508,194**	**3,523,395**	**14,031,589**

Hazus-MH: Earthquake Global Risk Report

Region Name: E_Haddam_64

Earthquake Scenario: RERUN_E_Haddam_6.4

Print Date: January 19, 2018

Disclaimer:

This version of Hazus utilizes 2010 Census Data.

Totals only reflect data for those census tracts/blocks included in the user's study region.

The estimates of social and economic impacts contained in this report were produced using Hazus loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific earthquake. These results can be improved by using enhanced inventory, geotechnical, and observed ground motion data.

Table of Contents

General Description of the Region

Hazus is a regional earthquake loss estimation model that was developed by the Federal Emergency Management Agency and the National Institute of Building Sciences. The primary purpose of Hazus is to provide a methodology and software application to develop earthquake losses at a regional scale. These loss estimates would be used primarily by local, state and regional officials to plan and stimulate efforts to reduce risks from earthquakes and to prepare for emergency response and recovery.

The earthquake loss estimates provided in this report was based on a region that includes 8 county(ies) from the following state(s):

Connecticut

Note:
Appendix A contains a complete listing of the counties contained in the region.

The geographical size of the region is 4,965.43 square miles and contains 829 census tracts. There are over 1,371 thousand households in the region which has a total population of 3,574,097 people (2010 Census Bureau data). The distribution of population by State and County is provided in Appendix B.

There are an estimated 1,218 thousand buildings in the region with a total building replacement value (excluding contents) of 488,242 (millions of dollars). Approximately 90.00 % of the buildings (and 72.00% of the building value) are associated with residential housing.

The replacement value of the transportation and utility lifeline systems is estimated to be 87,750 and 16,026 (millions of dollars) , respectively.

Building and Lifeline Inventory

Building Inventory

Hazus estimates that there are 1,218 thousand buildings in the region which have an aggregate total replacement value of 488,242 (millions of dollars) . Appendix B provides a general distribution of the building value by State and County.

In terms of building construction types found in the region, wood frame construction makes up 84% of the building inventory. The remaining percentage is distributed between the other general building types.

Critical Facility Inventory

Hazus breaks critical facilities into two (2) groups: essential facilities and high potential loss facilities (HPL). Essential facilities include hospitals, medical clinics, schools, fire stations, police stations and emergency operations facilities. High potential loss facilities include dams, levees, military installations, nuclear power plants and hazardous material sites.

For essential facilities, there are 49 hospitals in the region with a total bed capacity of 9,422 beds. There are 1,501 schools, 301 fire stations, 199 police stations and 43 emergency operation facilities. With respect to high potential loss facilities (HPL), there are 0 dams identified within the inventory. Of these, 0 of the dams are classified as 'high hazard'. The inventory also includes 905 hazardous material sites, 0 military installations and 2 nuclear power plants.

Transportation and Utility Lifeline Inventory

Within Hazus, the lifeline inventory is divided between transportation and utility lifeline systems. There are seven (7) transportation systems that include highways, railways, light rail, bus, ports, ferry and airports. There are six (6) utility systems that include potable water, wastewater, natural gas, crude & refined oil, electric power and communications. The lifeline inventory data are provided in Tables 1 and 2.

The total value of the lifeline inventory is over 103,776.00 (millions of dollars). This inventory includes over 4,431 kilometers of highways, 3,818 bridges, 283,121 kilometers of pipes.

Table 1: Transportation System Lifeline Inventory

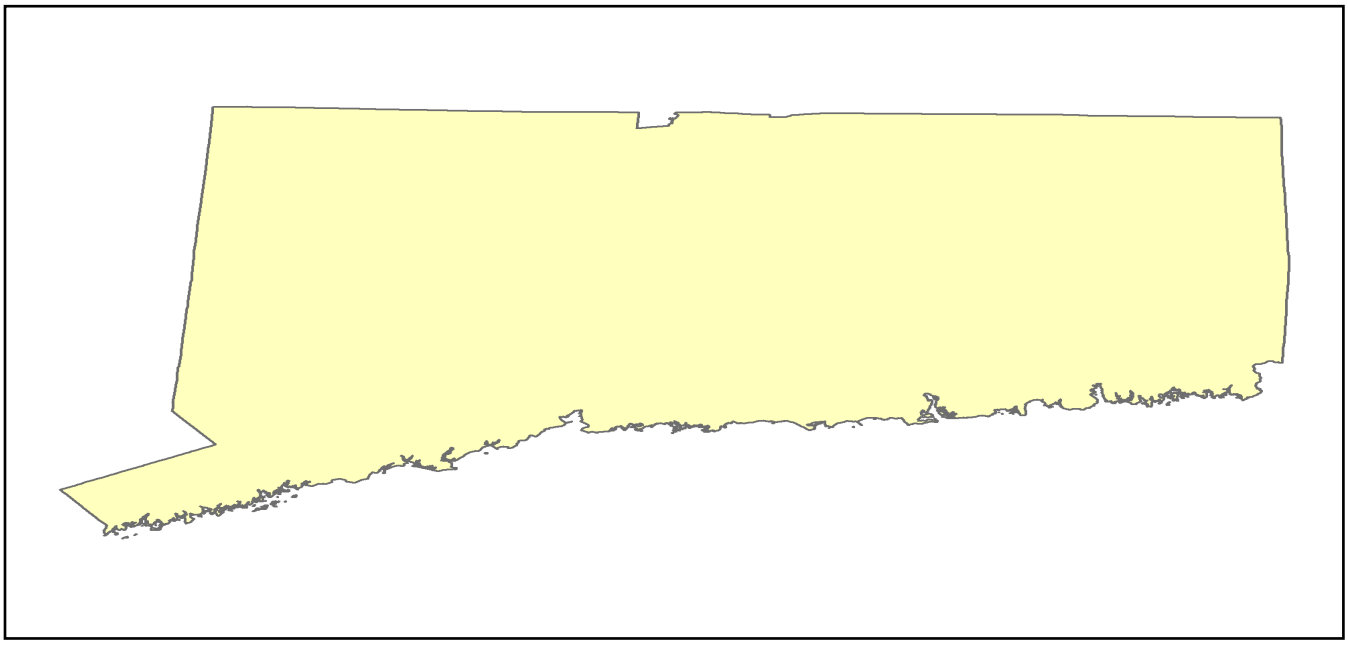
System	Component	# Locations/ # Segments	Replacement value (millions of dollars)
Highway	Bridges	3,818	57,716.30
	Segments	2,070	27,492.50
	Tunnels	1	0.30
		Subtotal	**85,209.10**
Railways	Bridges	63	7.60
	Facilities	20	53.30
	Segments	440	1,034.70
	Tunnels	0	0.00
		Subtotal	**1,095.60**
Light Rail	Bridges	0	0.00
	Facilities	9	24.00
	Segments	17	204.40
	Tunnels	0	0.00
		Subtotal	**228.40**
Bus	Facilities	61	76.50
		Subtotal	**76.50**
Ferry	Facilities	10	13.30
		Subtotal	**13.30**
Port	Facilities	96	191.70
		Subtotal	**191.70**
Airport	Facilities	13	138.50
	Runways	21	797.20
		Subtotal	**935.70**
		Total	**87,750.30**

Table 2: Utility System Lifeline Inventory

System	Component	# Locations / Segments	Replacement value (millions of dollars)
Potable Water	Distribution Lines	NA	2,831.20
	Facilities	11	421.20
	Pipelines	0	0.00
		Subtotal	**3,252.50**
Waste Water	Distribution Lines	NA	1,698.70
	Facilities	85	6,510.20
	Pipelines	0	0.00
		Subtotal	**8,208.90**
Natural Gas	Distribution Lines	NA	1,132.50
	Facilities	3	3.80
	Pipelines	0	0.00
		Subtotal	**1,136.20**
Oil Systems	Facilities	1	0.10
	Pipelines	0	0.00
		Subtotal	**0.10**
Electrical Power	Facilities	27	3,415.50
		Subtotal	**3,415.50**
Communication	Facilities	113	13.00
		Subtotal	**13.00**
		Total	**16,026.20**

Earthquake Scenario

Hazus uses the following set of information to define the earthquake parameters used for the earthquake loss estimate provided in this report.



Scenario Name	RERUN_E_Haddam_6.4
Type of Earthquake	Arbitrary
Fault Name	NA
Historical Epicenter ID #	NA
Probabilistic Return Period	NA
Longitude of Epicenter	-72.40
Latitude of Epicenter	41.50
Earthquake Magnitude	6.40
Depth (km)	10.00
Rupture Length (Km)	NA
Rupture Orientation (degrees)	NA
Attenuation Function	Central & East US (CEUS 2008)

Building Damage

Building Damage

Hazus estimates that about 142,175 buildings will be at least moderately damaged. This is over 12.00 % of the buildings in the region. There are an estimated 14,830 buildings that will be damaged beyond repair. The definition of the 'damage states' is provided in Volume 1: Chapter 5 of the Hazus technical manual. Table 3 below summarizes the expected damage by general occupancy for the buildings in the region. Table 4 below summarizes the expected damage by general building type.

Damage categories by General Occupancy Type

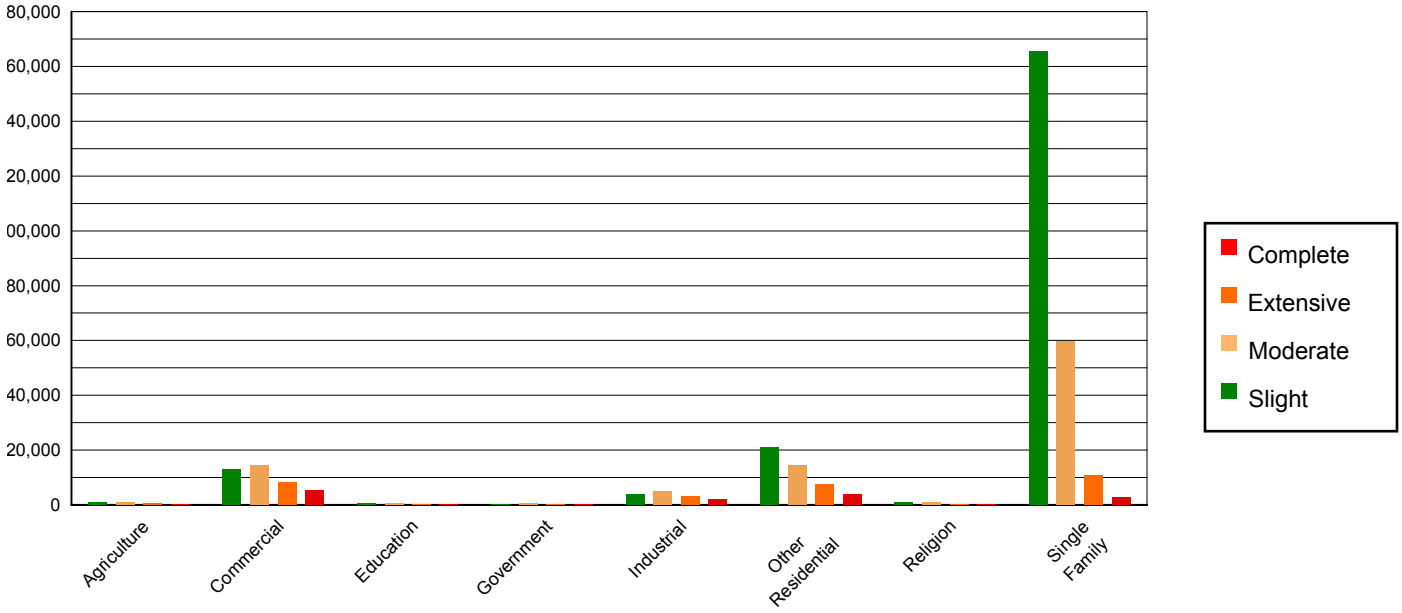


Table 3: Expected Building Damage by Occupancy

	None		Slight		Moderate		Extensive		Complete	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Agriculture	2,453	0.28	838	0.41	824	0.86	454	1.46	328	2.21
Commercial	39,405	4.53	12,937	6.28	14,303	14.86	8,257	26.57	5,241	35.34
Education	1,642	0.19	536	0.26	629	0.65	362	1.17	227	1.53
Government	944	0.11	344	0.17	481	0.50	330	1.06	210	1.42
Industrial	12,407	1.42	3,908	1.90	4,861	5.05	3,082	9.91	2,115	14.26
Other Residential	81,028	9.31	20,938	10.16	14,551	15.12	7,374	23.73	3,832	25.84
Religion	3,955	0.45	1,047	0.51	831	0.86	406	1.31	222	1.49
Single Family	728,846	83.71	165,563	80.33	59,785	62.11	10,815	34.80	2,656	17.91
Total	**870,681**		**206,112**		**96,265**		**31,080**		**14,831**	

Table 4: Expected Building Damage by Building Type (All Design Levels)

	None		Slight		Moderate		Extensive		Complete	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Wood	775,455	89.06	174692	84.76	60,266	62.60	9,412	30.28	1,450	9.77
Steel	24,909	2.86	8054	3.91	12,116	12.59	8,487	27.31	5,834	39.34
Concrete	5,400	0.62	1750	0.85	2,692	2.80	1,793	5.77	1,110	7.49
Precast	1,943	0.22	496	0.24	783	0.81	587	1.89	333	2.25
RM	11,964	1.37	2254	1.09	3,108	3.23	1,926	6.20	770	5.19
URM	47,640	5.47	16927	8.21	14,203	14.75	6,080	19.56	3,433	23.15
MH	3,371	0.39	1940	0.94	3,097	3.22	2,797	9.00	1,900	12.81
Total	**870,681**		**206,112**		**96,265**		**31,080**		**14,831**	

*Note:
RM Reinforced Masonry
URM Unreinforced Masonry
MH Manufactured Housing

Essential Facility Damage

Before the earthquake, the region had 9,422 hospital beds available for use. On the day of the earthquake, the model estimates that only 4,552 hospital beds (48.00%) are available for use by patients already in the hospital and those injured by the earthquake. After one week, 68.00% of the beds will be back in service. By 30 days, 87.00% will be operational.

Table 5: Expected Damage to Essential Facilities

Classification	Total	# Facilities		
		At Least Moderate Damage > 50%	Complete Damage > 50%	With Functionality > 50% on day 1
Hospitals	49	7	0	24
Schools	1,501	189	27	861
EOCs	43	11	1	17
PoliceStations	199	31	7	117
FireStations	301	49	11	167

Transportation Lifeline Damage

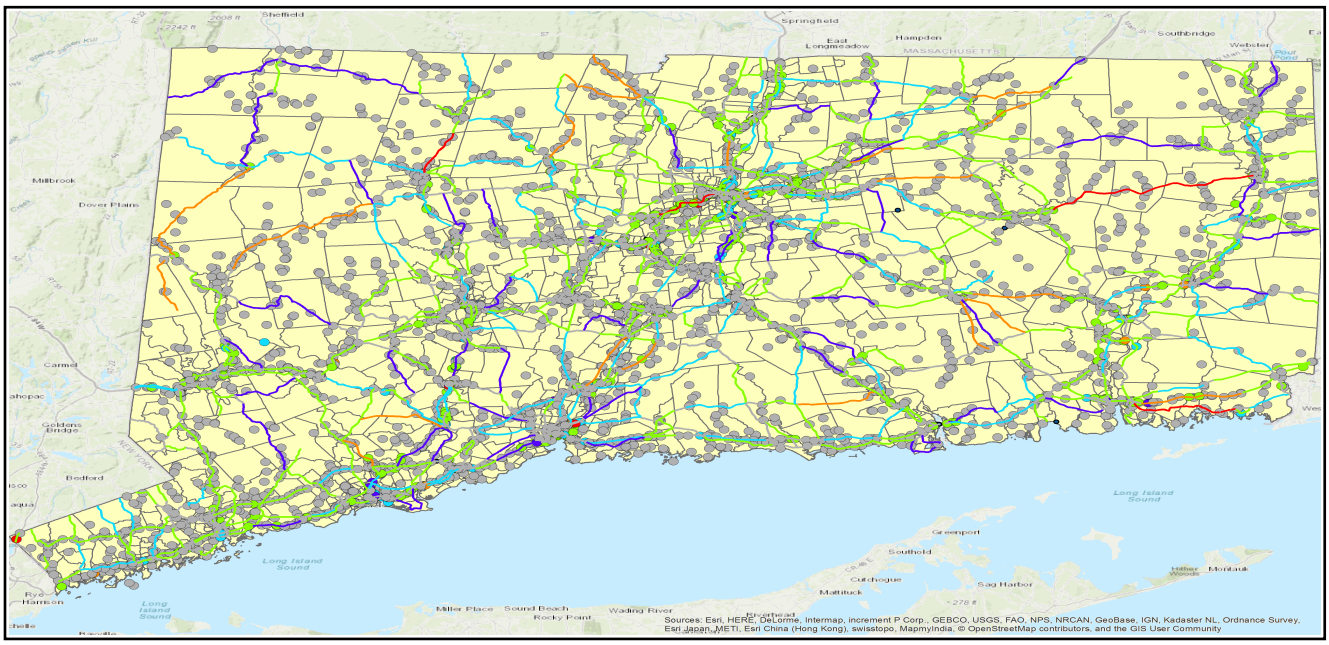


Table 6: Expected Damage to the Transportation Systems

System	Component		Number of Locations			
		Locations/ Segments	With at Least Mod. Damage	With Complete Damage	With Functionality > 50 %	
					After Day 1	After Day 7
Highway	Segments	2,070	0	0	2,070	2,070
	Bridges	3,818	369	47	3,472	3,654
	Tunnels	1	0	0	1	1
Railways	Segments	440	0	0	440	440
	Bridges	63	0	0	63	63
	Tunnels	0	0	0	0	0
	Facilities	20	0	0	20	20
Light Rail	Segments	17	0	0	17	17
	Bridges	0	0	0	0	0
	Tunnels	0	0	0	0	0
	Facilities	9	0	0	9	9
Bus	Facilities	61	1	0	60	60
Ferry	Facilities	10	2	0	8	8
Port	Facilities	96	9	0	89	91
Airport	Facilities	13	1	0	13	13
	Runways	21	0	0	21	21

Table 6 provides damage estimates for the transportation system.

Note: Roadway segments, railroad tracks and light rail tracks are assumed to be damaged by ground failure only. If ground failure maps are not provided, damage estimates to these components will not be computed.

Tables 7-9 provide information on the damage to the utility lifeline systems. Table 7 provides damage to the utility system facilities. Table 8 provides estimates on the number of leaks and breaks by the pipelines of the utility systems. For electric power and potable water, Hazus performs a simplified system performance analysis. Table 9 provides a summary of the system performance information.

Table 7 : Expected Utility System Facility Damage

System	# of Locations				
	Total #	With at Least Moderate Damage	With Complete Damage	with Functionality > 50 %	
				After Day 1	After Day 7
Potable Water	11	0	0	11	11
Waste Water	85	6	0	57	84
Natural Gas	3	0	0	2	3
Oil Systems	1	1	0	0	1
Electrical Power	27	4	0	14	26
Communication	113	12	0	113	113

Table 8 : Expected Utility System Pipeline Damage (Site Specific)

System	Total Pipelines Length (kms)	Number of Leaks	Number of Breaks
Potable Water	141,561	16240	4060
Waste Water	84,936	11639	2910
Natural Gas	56,624	3338	835
Oil	0	0	0

Table 9: Expected Potable Water and Electric Power System Performance

	Total # of Households	Number of Households without Service				
		At Day 1	At Day 3	At Day 7	At Day 30	At Day 90
Potable Water	1,371,087	117,678	103,618	80,818	1,123	0
Electric Power		94,676	57,716	23,813	5,189	123

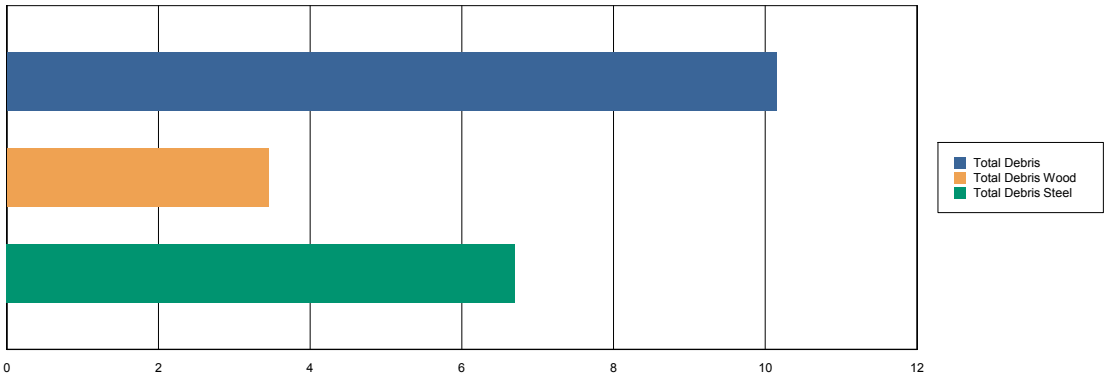
Induced Earthquake Damage

Debris Generation

Hazus estimates the amount of debris that will be generated by the earthquake. The model breaks the debris into two general categories: a) Brick/Wood and b) Reinforced Concrete/Steel. This distinction is made because of the different types of material handling equipment required to handle the debris.

The model estimates that a total of 10.15 million tons of debris will be generated. Of the total amount, Brick/Wood comprises 34.00% of the total, with the remainder being Reinforced Concrete/Steel. If the debris tonnage is converted to an estimated number of truckloads, it will require 406,000 truckloads (@25 tons/truck) to remove the debris generated by the earthquake.

Earthquake Debris (millions of tons)



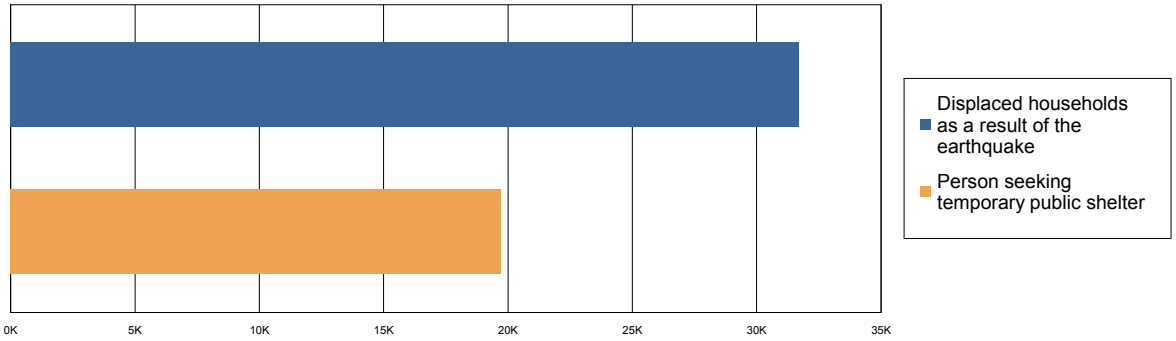
Brick/ Wood	Reinforced Concrete/Steel	Total Debris	Truck Load
3.45	6.70	10.15	406,000 (@25 tons/truck)

Social Impact

Shelter Requirement

Hazus estimates the number of households that are expected to be displaced from their homes due to the earthquake and the number of displaced people that will require accommodations in temporary public shelters. The model estimates 31,683 households to be displaced due to the earthquake. Of these, 19,707 people (out of a total population of 3,574,097) will seek temporary shelter in public shelters.

Displaced Households/ Persons Seeking Short Term Public Shelter



Displaced households as a result of the earthquake	Persons seeking temporary public shelter
31,683	19,707

Casualties

Hazus estimates the number of people that will be injured and killed by the earthquake. The casualties are broken down into four (4) severity levels that describe the extent of the injuries. The levels are described as follows;

- Severity Level 1: Injuries will require medical attention but hospitalization is not needed.
- Severity Level 2: Injuries will require hospitalization but are not considered life-threatening
- Severity Level 3: Injuries will require hospitalization and can become life threatening if not promptly treated.
- Severity Level 4: Victims are killed by the earthquake.

The casualty estimates are provided for three (3) times of day: 2:00 AM, 2:00 PM and 5:00 PM. These times represent the periods of the day that different sectors of the community are at their peak occupancy loads. The 2:00 AM estimate considers that the residential occupancy load is maximum, the 2:00 PM estimate considers that the educational, commercial and industrial sector loads are maximum and 5:00 PM represents peak commute time.

Table 10 provides a summary of the casualties estimated for this earthquake

Table 10: Casualty Estimates

		Level 1	Level 2	Level 3	Level 4
2 AM	Commercial	178	48	7	14
	Commuting	1	1	2	0
	Educational	0	0	0	0
	Hotels	0	0	0	0
	Industrial	295	82	12	24
	Other-Residential	3,396	881	132	259
	Single Family	1,607	303	34	67
	Total	**5,477**	**1,315**	**187**	**364**
2 PM	Commercial	10,094	2,728	398	777
	Commuting	7	9	15	3
	Educational	4,527	1,274	201	391
	Hotels	0	0	0	0
	Industrial	2,183	609	92	179
	Other-Residential	666	172	26	49
	Single Family	306	59	7	13
	Total	**17,782**	**4,852**	**740**	**1,412**
5 PM	Commercial	7,163	1,939	286	549
	Commuting	135	184	306	60
	Educational	551	154	24	47
	Hotels	0	0	0	0
	Industrial	1,364	381	57	112
	Other-Residential	1,326	345	53	100
	Single Family	634	124	15	28
	Total	**11,173**	**3,127**	**742**	**895**

Economic Loss

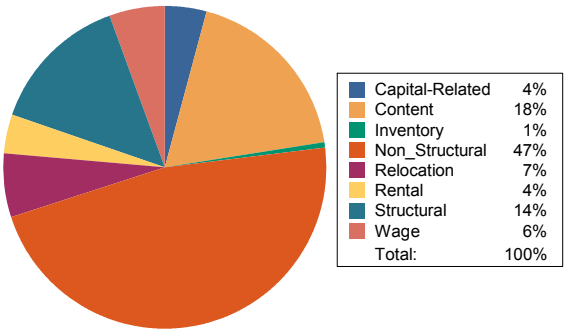
The total economic loss estimated for the earthquake is 44,065.32 (millions of dollars), which includes building and lifeline related losses based on the region's available inventory. The following three sections provide more detailed information about these losses.

Building-Related Losses

The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the earthquake. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the earthquake.

The total building-related losses were 39,426.62 (millions of dollars); 20 % of the estimated losses were related to the business interruption of the region. By far, the largest loss was sustained by the residential occupancies which made up over 39 % of the total loss. Table 11 below provides a summary of the losses associated with the building damage.

Earthquake Losses by Loss Type ($ millions)



Earthquake Losses by Occupancy Type ($ millions)

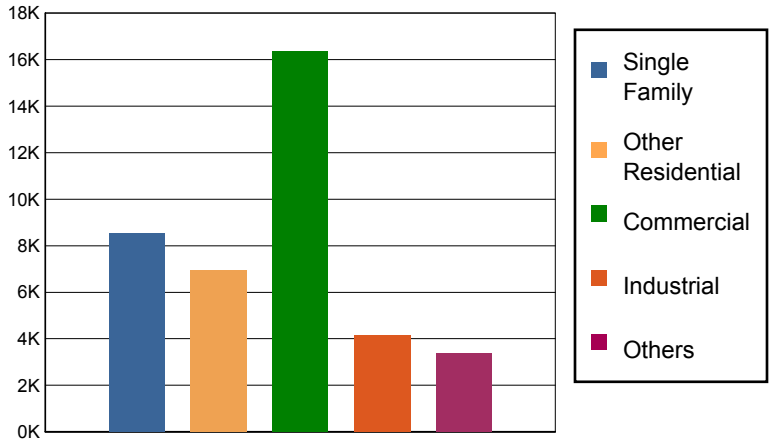


Table 11: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Single Family	Other Residential	Commercial	Industrial	Others	Total
Income Losses							
	Wage	0.00	257.36	1,700.21	86.15	129.80	2,173.52
	Capital-Related	0.00	109.70	1,461.00	53.22	30.67	1,654.58
	Rental	159.00	499.28	721.31	29.76	55.03	1,464.37
	Relocation	554.08	272.34	1,184.14	144.91	427.50	2,582.97
	Subtotal	**713.08**	**1,138.68**	**5,066.66**	**314.03**	**643.00**	**7,875.45**
Capital Stock Losses							
	Structural	1,075.95	986.34	2,386.11	629.11	565.75	5,643.26
	Non_Structural	5,025.48	3,935.66	6,135.60	1,879.73	1,498.69	18,475.17
	Content	1,741.30	878.60	2,727.48	1,156.17	673.67	7,177.21
	Inventory	0.00	0.00	59.22	185.68	10.63	255.53
	Subtotal	**7,842.72**	**5,800.59**	**11,308.41**	**3,850.69**	**2,748.75**	**31,551.17**
	Total	**8,555.80**	**6,939.27**	**16,375.08**	**4,164.72**	**3,391.75**	**39,426.62**

Transportation and Utility Lifeline Losses

For the transportation and utility lifeline systems, Hazus computes the direct repair cost for each component only. There are no losses computed by Hazus for business interruption due to lifeline outages. Tables 12 & 13 provide a detailed breakdown in the expected lifeline losses.

Table 12: Transportation System Economic Losses
(Millions of dollars)

System	Component	Inventory Value	Economic Loss	Loss Ratio (%)
Highway	Segments	27,492.45	$0.00	0.00
	Bridges	57,716.28	$3630.55	6.29
	Tunnels	0.34	$0.00	0.24
	Subtotal	**85,209**	**3,630.50**	
Railways	Segments	1,034.75	$0.00	0.00
	Bridges	7.62	$0.12	1.57
	Tunnels	0.00	$0.00	0.00
	Facilities	53.26	$7.79	14.63
	Subtotal	**1,096**	**7.90**	
Light Rail	Segments	204.42	$0.00	0.00
	Bridges	0.00	$0.00	0.00
	Tunnels	0.00	$0.00	0.00
	Facilities	23.97	$4.88	20.37
	Subtotal	**228**	**4.90**	
Bus	Facilities	76.46	$9.27	12.12
	Subtotal	**76**	**9.30**	
Ferry	Facilities	13.31	$3.33	25.00
	Subtotal	**13**	**3.30**	
Port	Facilities	191.71	$39.79	20.75
	Subtotal	**192**	**39.80**	
Airport	Facilities	138.46	$20.72	14.97
	Runways	797.24	$0.00	0.00
	Subtotal	**936**	**20.70**	
	Total	**87,750.30**	**3,716.50**	

Table 13: Utility System Economic Losses

(Millions of dollars)

System	Component	Inventory Value	Economic Loss	Loss Ratio (%)
Potable Water	Pipelines	0.00	$0.00	0.00
	Facilities	421.20	$26.31	6.25
	Distribution Lines	2,831.20	$73.08	2.58
	Subtotal	**3,252.46**	**$99.39**	
Waste Water	Pipelines	0.00	$0.00	0.00
	Facilities	6,510.20	$405.05	6.22
	Distribution Lines	1,698.70	$52.38	3.08
	Subtotal	**8,208.88**	**$457.43**	
Natural Gas	Pipelines	0.00	$0.00	0.00
	Facilities	3.80	$0.41	10.88
	Distribution Lines	1,132.50	$15.02	1.33
	Subtotal	**1,136.25**	**$15.43**	
Oil Systems	Pipelines	0.00	$0.00	0.00
	Facilities	0.10	$0.03	21.74
	Subtotal	**0.12**	**$0.03**	
Electrical Power	Facilities	3,415.50	$349.04	10.22
	Subtotal	**3,415.50**	**$349.04**	
Communication	Facilities	13.00	$0.94	7.20
	Subtotal	**13.00**	**$0.94**	
	Total	**16,026.19**	**$922.25**	

Appendix A: County Listing for the Region

Fairfield,CT

Hartford,CT

Litchfield,CT

Middlesex,CT

New Haven,CT

New London,CT

Tolland,CT

Windham,CT

Appendix B: Regional Population and Building Value Data

State	County Name	Population	Building Value (millions of dollars)		
			Residential	Non-Residential	Total
Connecticut					
	Fairfield	916,829	92,896	38,506	131,402
	Hartford	894,014	84,874	35,200	120,074
	Litchfield	189,927	20,467	7,244	27,712
	Middlesex	165,676	18,596	6,503	25,099
	New Haven	862,477	79,934	34,971	114,905
	New London	274,055	28,202	8,383	36,586
	Tolland	152,691	15,136	3,292	18,428
	Windham	118,428	10,508	3,523	14,031
Total State		**3,574,097**	**350,613**	**137,622**	**488,237**
Total Region		**3,574,097**	**350,613**	**137,622**	**488,237**

Hazus-MH: Earthquake Global Risk Report

Region Name: Haddam_57

Earthquake Scenario: RERUN_Haddam_5.7

Print Date: January 19, 2018

Disclaimer:

This version of Hazus utilizes 2010 Census Data.

Totals only reflect data for those census tracts/blocks included in the user's study region.

The estimates of social and economic impacts contained in this report were produced using Hazus loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific earthquake. These results can be improved by using enhanced inventory, geotechnical, and observed ground motion data.

Table of Contents

General Description of the Region

Hazus is a regional earthquake loss estimation model that was developed by the Federal Emergency Management Agency and the National Institute of Building Sciences. The primary purpose of Hazus is to provide a methodology and software application to develop earthquake losses at a regional scale. These loss estimates would be used primarily by local, state and regional officials to plan and stimulate efforts to reduce risks from earthquakes and to prepare for emergency response and recovery.

The earthquake loss estimates provided in this report was based on a region that includes 8 county(ies) from the following state(s):

Connecticut

Note:
Appendix A contains a complete listing of the counties contained in the region.

The geographical size of the region is 4,965.43 square miles and contains 829 census tracts. There are over 1,371 thousand households in the region which has a total population of 3,574,097 people (2010 Census Bureau data). The distribution of population by State and County is provided in Appendix B.

There are an estimated 1,218 thousand buildings in the region with a total building replacement value (excluding contents) of 488,242 (millions of dollars). Approximately 90.00 % of the buildings (and 72.00% of the building value) are associated with residential housing.

The replacement value of the transportation and utility lifeline systems is estimated to be 87,750 and 16,026 (millions of dollars) , respectively.

Building and Lifeline Inventory

Building Inventory

Hazus estimates that there are 1,218 thousand buildings in the region which have an aggregate total replacement value of 488,242 (millions of dollars) . Appendix B provides a general distribution of the building value by State and County.

In terms of building construction types found in the region, wood frame construction makes up 84% of the building inventory. The remaining percentage is distributed between the other general building types.

Critical Facility Inventory

Hazus breaks critical facilities into two (2) groups: essential facilities and high potential loss facilities (HPL). Essential facilities include hospitals, medical clinics, schools, fire stations, police stations and emergency operations facilities. High potential loss facilities include dams, levees, military installations, nuclear power plants and hazardous material sites.

For essential facilities, there are 49 hospitals in the region with a total bed capacity of 9,422 beds. There are 1,501 schools, 301 fire stations, 199 police stations and 43 emergency operation facilities. With respect to high potential loss facilities (HPL), there are 0 dams identified within the inventory. Of these, 0 of the dams are classified as 'high hazard'. The inventory also includes 905 hazardous material sites, 0 military installations and 2 nuclear power plants.

Transportation and Utility Lifeline Inventory

Within Hazus, the lifeline inventory is divided between transportation and utility lifeline systems. There are seven (7) transportation systems that include highways, railways, light rail, bus, ports, ferry and airports. There are six (6) utility systems that include potable water, wastewater, natural gas, crude & refined oil, electric power and communications. The lifeline inventory data are provided in Tables 1 and 2.

The total value of the lifeline inventory is over 103,776.00 (millions of dollars). This inventory includes over 4,431 kilometers of highways, 3,818 bridges, 283,121 kilometers of pipes.

Table 1: Transportation System Lifeline Inventory

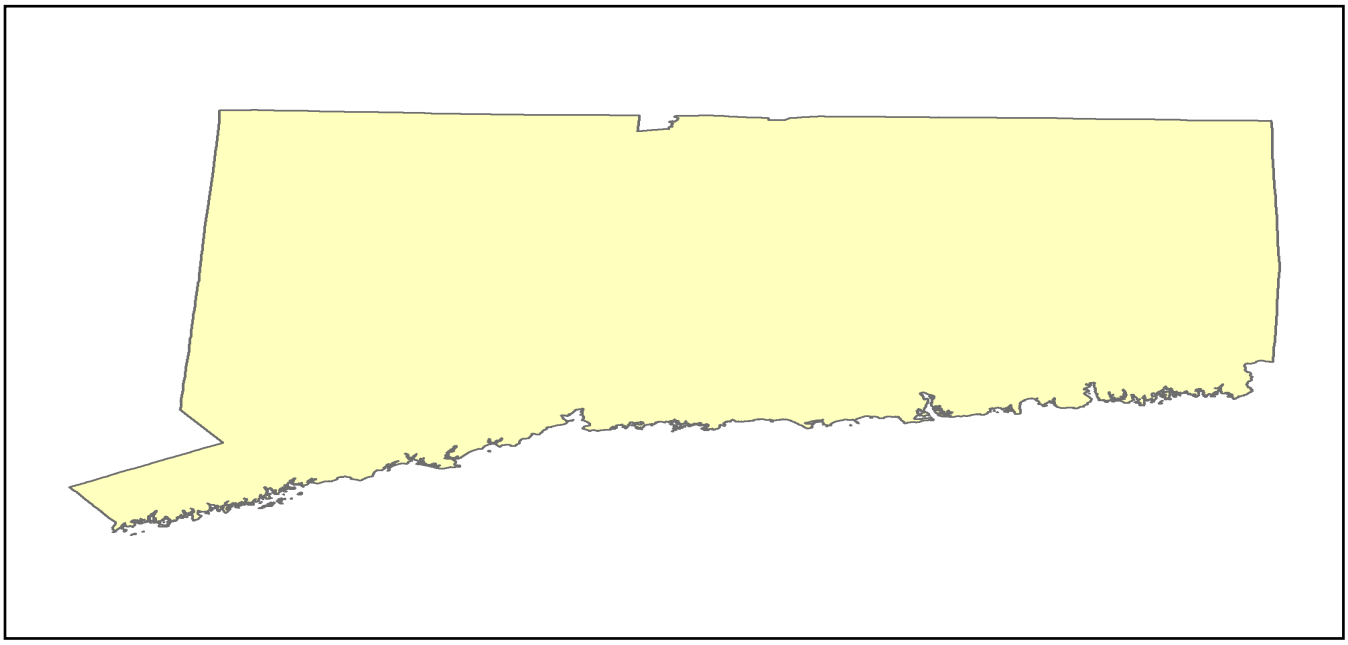
System	Component	# Locations/ # Segments	Replacement value (millions of dollars)
Highway	Bridges	3,818	57,716.30
	Segments	2,070	27,492.50
	Tunnels	1	0.30
		Subtotal	**85,209.10**
Railways	Bridges	63	7.60
	Facilities	20	53.30
	Segments	440	1,034.70
	Tunnels	0	0.00
		Subtotal	**1,095.60**
Light Rail	Bridges	0	0.00
	Facilities	9	24.00
	Segments	17	204.40
	Tunnels	0	0.00
		Subtotal	**228.40**
Bus	Facilities	61	76.50
		Subtotal	**76.50**
Ferry	Facilities	10	13.30
		Subtotal	**13.30**
Port	Facilities	96	191.70
		Subtotal	**191.70**
Airport	Facilities	13	138.50
	Runways	21	797.20
		Subtotal	**935.70**
		Total	**87,750.30**

Table 2: Utility System Lifeline Inventory

System	Component	# Locations / Segments	Replacement value (millions of dollars)
Potable Water	Distribution Lines	NA	2,831.20
	Facilities	11	421.20
	Pipelines	0	0.00
		Subtotal	**3,252.50**
Waste Water	Distribution Lines	NA	1,698.70
	Facilities	85	6,510.20
	Pipelines	0	0.00
		Subtotal	**8,208.90**
Natural Gas	Distribution Lines	NA	1,132.50
	Facilities	3	3.80
	Pipelines	0	0.00
		Subtotal	**1,136.20**
Oil Systems	Facilities	1	0.10
	Pipelines	0	0.00
		Subtotal	**0.10**
Electrical Power	Facilities	27	3,415.50
		Subtotal	**3,415.50**
Communication	Facilities	113	13.00
		Subtotal	**13.00**
		Total	**16,026.20**

Earthquake Scenario

Hazus uses the following set of information to define the earthquake parameters used for the earthquake loss estimate provided in this report.



Scenario Name	RERUN_Haddam_5.7
Type of Earthquake	Arbitrary
Fault Name	NA
Historical Epicenter ID #	NA
Probabilistic Return Period	NA
Longitude of Epicenter	-72.50
Latitude of Epicenter	41.50
Earthquake Magnitude	5.70
Depth (km)	10.00
Rupture Length (Km)	NA
Rupture Orientation (degrees)	NA
Attenuation Function	Central & East US (CEUS 2008)

Building Damage

Building Damage

Hazus estimates that about 58,188 buildings will be at least moderately damaged. This is over 5.00 % of the buildings in the region. There are an estimated 3,587 buildings that will be damaged beyond repair. The definition of the 'damage states' is provided in Volume 1: Chapter 5 of the Hazus technical manual. Table 3 below summarizes the expected damage by general occupancy for the buildings in the region. Table 4 below summarizes the expected damage by general building type.

Damage categories by General Occupancy Type

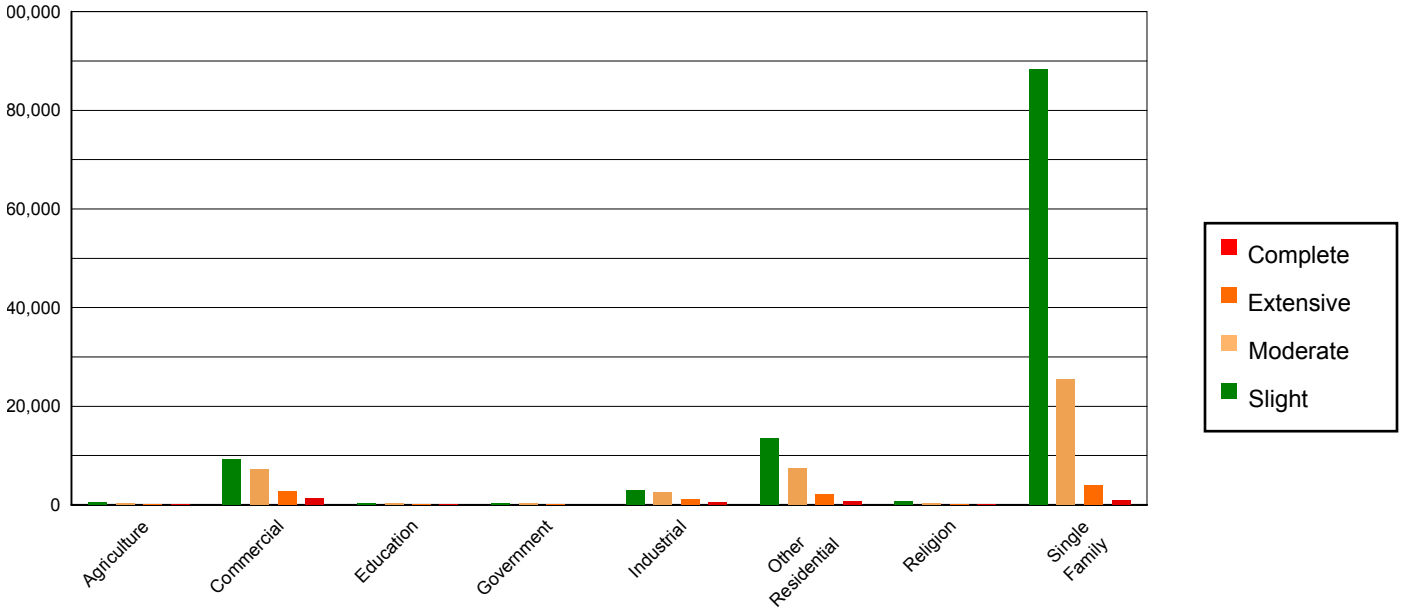


Table 3: Expected Building Damage by Occupancy

	None		Slight		Moderate		Extensive		Complete	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Agriculture	3,667	0.35	585	0.50	411	0.93	161	1.54	74	2.05
Commercial	59,689	5.71	9,347	8.07	7,171	16.25	2,711	25.90	1,226	34.16
Education	2,533	0.24	390	0.34	304	0.69	112	1.07	57	1.58
Government	1,653	0.16	287	0.25	247	0.56	89	0.85	34	0.94
Industrial	19,361	1.85	2,914	2.52	2,519	5.71	1,047	10.01	532	14.82
Other Residential	103,816	9.93	13,368	11.54	7,525	17.05	2,236	21.37	779	21.71
Religion	5,143	0.49	684	0.59	428	0.97	146	1.40	60	1.68
Single Family	849,123	81.26	88,223	76.19	25,531	57.85	3,962	37.86	827	23.05
Total	**1,044,983**		**115,797**		**44,136**		**10,465**		**3,588**	

Table 4: Expected Building Damage by Building Type (All Design Levels)

	None		Slight		Moderate		Extensive		Complete	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Wood	902,103	86.33	91494	79.01	24,314	55.09	3,043	29.08	318	8.88
Steel	42,767	4.09	6526	5.64	6,271	14.21	2,569	24.54	1,268	35.35
Concrete	9,258	0.89	1419	1.23	1,352	3.06	487	4.65	229	6.39
Precast	2,976	0.28	404	0.35	452	1.03	224	2.14	86	2.40
RM	16,237	1.55	1516	1.31	1,461	3.31	622	5.94	186	5.18
URM	63,866	6.11	12273	10.60	8,171	18.51	2,769	26.46	1,204	33.56
MH	7,776	0.74	2165	1.87	2,115	4.79	752	7.19	296	8.25
Total	**1,044,983**		**115,797**		**44,136**		**10,465**		**3,588**	

*Note:
RM Reinforced Masonry
URM Unreinforced Masonry
MH Manufactured Housing

Essential Facility Damage

Before the earthquake, the region had 9,422 hospital beds available for use. On the day of the earthquake, the model estimates that only 6,204 hospital beds (66.00%) are available for use by patients already in the hospital and those injured by the earthquake. After one week, 81.00% of the beds will be back in service. By 30 days, 92.00% will be operational.

Table 5: Expected Damage to Essential Facilities

Classification	Total	# Facilities		
		At Least Moderate Damage > 50%	Complete Damage > 50%	With Functionality > 50% on day 1
Hospitals	49	4	0	43
Schools	1,501	57	13	1,361
EOCs	43	4	0	36
PoliceStations	199	9	3	179
FireStations	301	14	2	264

Transportation Lifeline Damage

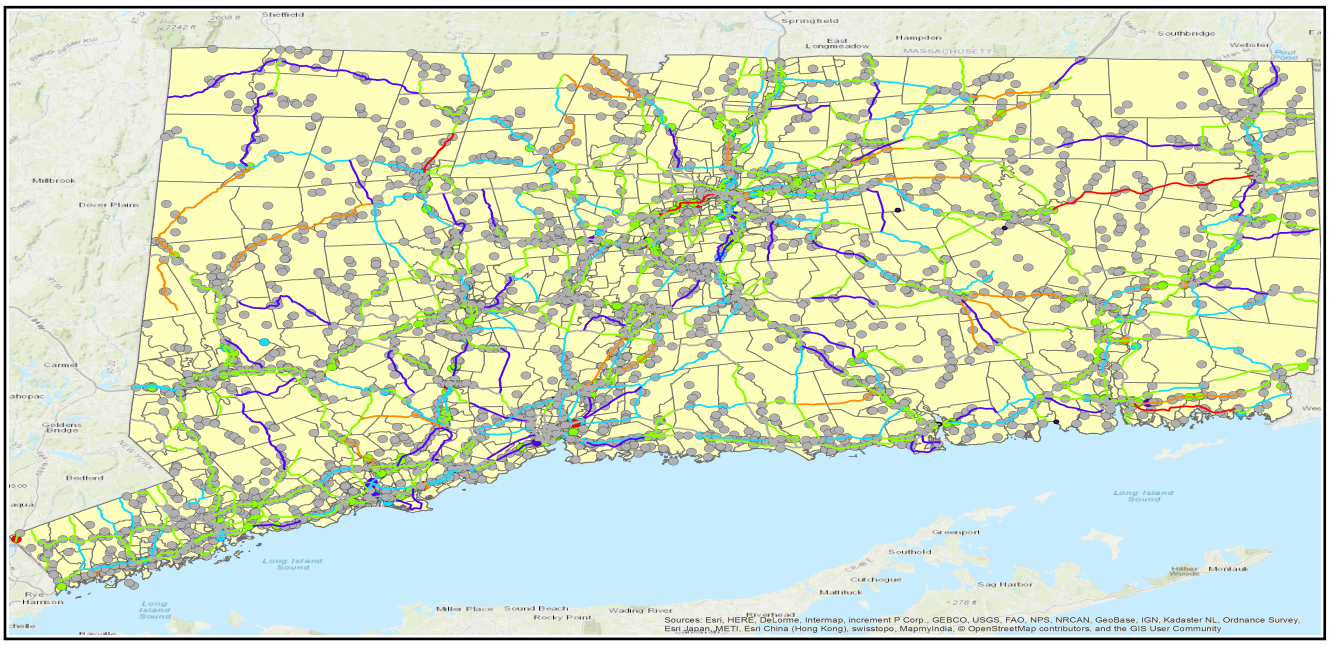


Table 6: Expected Damage to the Transportation Systems

System	Component		Number of Locations			
		Locations/ Segments	With at Least Mod. Damage	With Complete Damage	With Functionality > 50 %	
					After Day 1	After Day 7
Highway	Segments	2,070	0	0	2,070	2,070
	Bridges	3,818	66	7	3,756	3,776
	Tunnels	1	0	0	1	1
Railways	Segments	440	0	0	440	440
	Bridges	63	0	0	63	63
	Tunnels	0	0	0	0	0
	Facilities	20	0	0	20	20
Light Rail	Segments	17	0	0	17	17
	Bridges	0	0	0	0	0
	Tunnels	0	0	0	0	0
	Facilities	9	0	0	9	9
Bus	Facilities	61	2	0	61	61
Ferry	Facilities	10	2	0	8	10
Port	Facilities	96	13	0	89	96
Airport	Facilities	13	1	0	13	13
	Runways	21	0	0	21	21

Table 6 provides damage estimates for the transportation system.

Note: Roadway segments, railroad tracks and light rail tracks are assumed to be damaged by ground failure only. If ground failure maps are not provided, damage estimates to these components will not be computed.

Tables 7-9 provide information on the damage to the utility lifeline systems. Table 7 provides damage to the utility system facilities. Table 8 provides estimates on the number of leaks and breaks by the pipelines of the utility systems. For electric power and potable water, Hazus performs a simplified system performance analysis. Table 9 provides a summary of the system performance information.

Table 7 : Expected Utility System Facility Damage

System	# of Locations				
	Total #	With at Least Moderate Damage	With Complete Damage	with Functionality > 50 %	
				After Day 1	After Day 7
Potable Water	11	0	0	11	11
Waste Water	85	4	0	79	84
Natural Gas	3	0	0	3	3
Oil Systems	1	1	0	0	1
Electrical Power	27	2	0	25	27
Communication	113	3	0	112	113

Table 8 : Expected Utility System Pipeline Damage (Site Specific)

System	Total Pipelines Length (kms)	Number of Leaks	Number of Breaks
Potable Water	141,561	4677	1169
Waste Water	84,936	3352	838
Natural Gas	56,624	961	240
Oil	0	0	0

Table 9: Expected Potable Water and Electric Power System Performance

	Total # of Households	Number of Households without Service				
		At Day 1	At Day 3	At Day 7	At Day 30	At Day 90
Potable Water	1,371,087	16,100	11,908	4,909	0	0
Electric Power		42,077	26,693	11,037	2,123	52

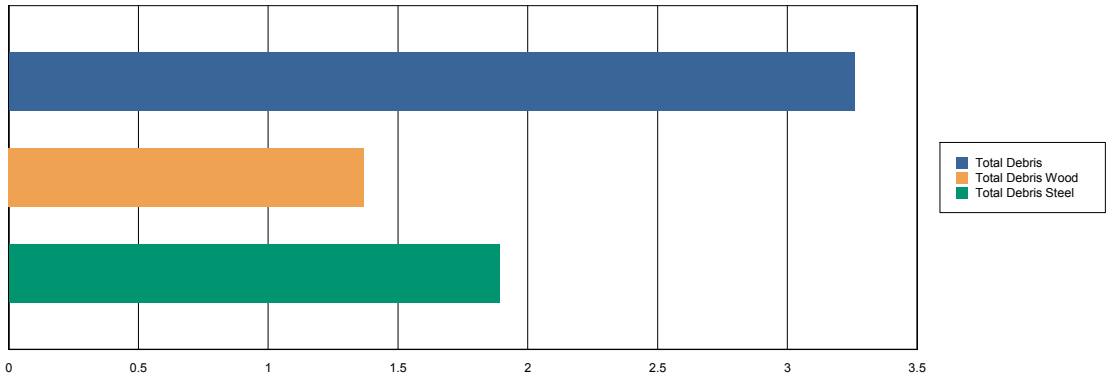
Induced Earthquake Damage

Debris Generation

Hazus estimates the amount of debris that will be generated by the earthquake. The model breaks the debris into two general categories: a) Brick/Wood and b) Reinforced Concrete/Steel. This distinction is made because of the different types of material handling equipment required to handle the debris.

The model estimates that a total of 3.26 million tons of debris will be generated. Of the total amount, Brick/Wood comprises 42.00% of the total, with the remainder being Reinforced Concrete/Steel. If the debris tonnage is converted to an estimated number of truckloads, it will require 130,400 truckloads (@25 tons/truck) to remove the debris generated by the earthquake.

Earthquake Debris (millions of tons)



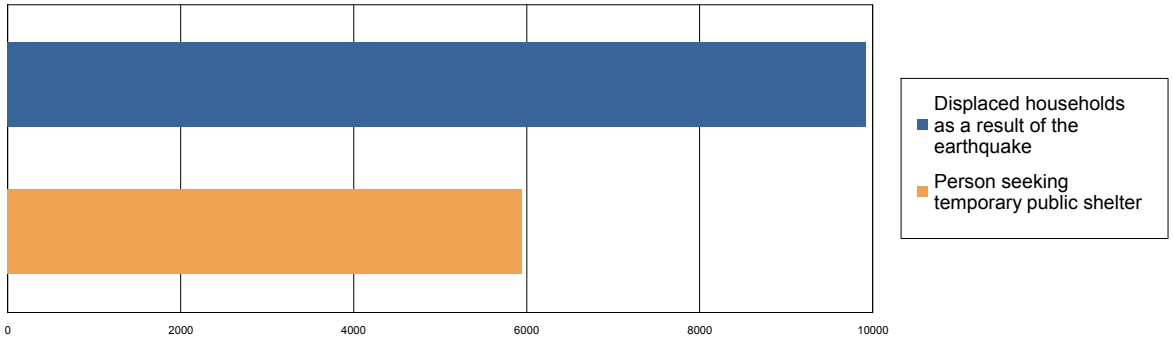
Brick/ Wood	Reinforced Concrete/Steel	Total Debris	Truck Load
1.37	1.89	3.26	130,400 (@25 tons/truck)

Social Impact

Shelter Requirement

Hazus estimates the number of households that are expected to be displaced from their homes due to the earthquake and the number of displaced people that will require accommodations in temporary public shelters. The model estimates 9,919 households to be displaced due to the earthquake. Of these, 5,946 people (out of a total population of 3,574,097) will seek temporary shelter in public shelters.

Displaced Households/ Persons Seeking Short Term Public Shelter



Displaced households as a result of the earthquake	Persons seeking temporary public shelter
9,919	5,946

Casualties

Hazus estimates the number of people that will be injured and killed by the earthquake. The casualties are broken down into four (4) severity levels that describe the extent of the injuries. The levels are described as follows;

- Severity Level 1: Injuries will require medical attention but hospitalization is not needed.
- Severity Level 2: Injuries will require hospitalization but are not considered life-threatening
- Severity Level 3: Injuries will require hospitalization and can become life threatening if not promptly treated.
- Severity Level 4: Victims are killed by the earthquake.

The casualty estimates are provided for three (3) times of day: 2:00 AM, 2:00 PM and 5:00 PM. These times represent the periods of the day that different sectors of the community are at their peak occupancy loads. The 2:00 AM estimate considers that the residential occupancy load is maximum, the 2:00 PM estimate considers that the educational, commercial and industrial sector loads are maximum and 5:00 PM represents peak commute time.

Table 10 provides a summary of the casualties estimated for this earthquake

Table 10: Casualty Estimates

		Level 1	Level 2	Level 3	Level 4
2 AM	Commercial	51	13	2	3
	Commuting	0	0	0	0
	Educational	0	0	0	0
	Hotels	0	0	0	0
	Industrial	83	22	3	6
	Other-Residential	1,008	234	33	65
	Single Family	629	108	12	23
	Total	**1,770**	**376**	**50**	**98**
2 PM	Commercial	2,858	710	100	195
	Commuting	1	2	3	1
	Educational	1,264	330	50	97
	Hotels	0	0	0	0
	Industrial	616	159	23	45
	Other-Residential	200	47	7	13
	Single Family	118	21	2	5
	Total	**5,057**	**1,269**	**186**	**355**
5 PM	Commercial	2,035	508	72	139
	Commuting	29	38	66	13
	Educational	152	40	6	12
	Hotels	0	0	0	0
	Industrial	385	100	15	28
	Other-Residential	396	93	13	25
	Single Family	246	44	5	10
	Total	**3,243**	**822**	**177**	**226**

Economic Loss

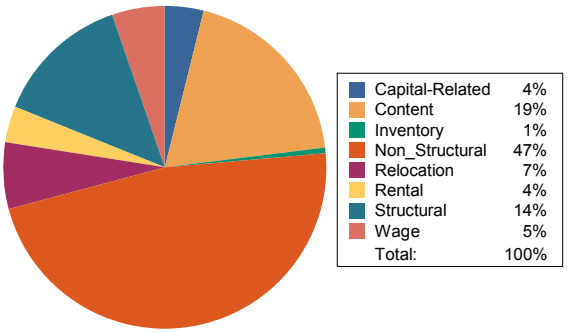
The total economic loss estimated for the earthquake is 15,195.21 (millions of dollars), which includes building and lifeline related losses based on the region's available inventory. The following three sections provide more detailed information about these losses.

Building-Related Losses

The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the earthquake. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the earthquake.

The total building-related losses were 13,714.61 (millions of dollars); 19 % of the estimated losses were related to the business interruption of the region. By far, the largest loss was sustained by the residential occupancies which made up over 44 % of the total loss. Table 11 below provides a summary of the losses associated with the building damage.

Earthquake Losses by Loss Type ($ millions)



Earthquake Losses by Occupancy Type ($ millions)

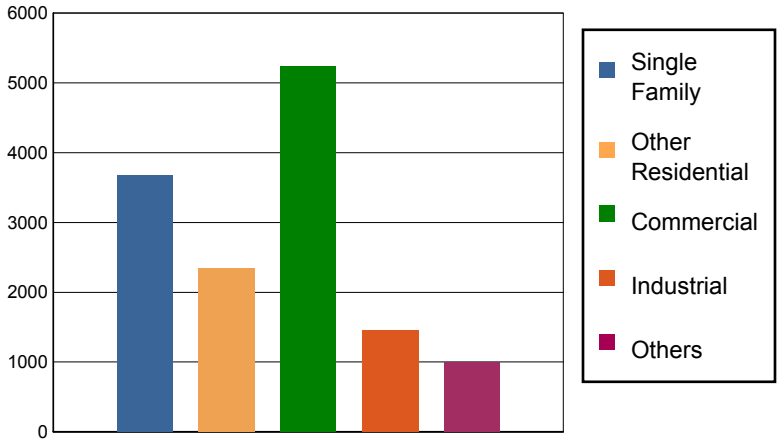


Table 11: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Single Family	Other Residential	Commercial	Industrial	Others	Total
Income Losses							
	Wage	0.00	80.62	570.70	31.05	37.75	720.12
	Capital-Related	0.00	34.36	472.81	19.07	9.18	535.42
	Rental	63.80	168.67	241.69	11.00	15.51	500.68
	Relocation	220.06	98.13	407.93	53.94	130.83	910.89
	Subtotal	**283.86**	**381.78**	**1,693.13**	**115.07**	**193.27**	**2,667.11**
Capital Stock Losses							
	Structural	445.93	321.34	730.40	214.98	165.40	1,878.05
	Non_Structural	2,159.05	1,326.64	1,890.86	646.35	433.29	6,456.19
	Content	785.63	317.72	902.85	412.28	205.32	2,623.80
	Inventory	0.00	0.00	16.53	70.37	2.56	89.46
	Subtotal	**3,390.61**	**1,965.70**	**3,540.64**	**1,343.99**	**806.57**	**11,047.50**
	Total	**3,674.47**	**2,347.48**	**5,233.77**	**1,459.05**	**999.84**	**13,714.61**

Transportation and Utility Lifeline Losses

For the transportation and utility lifeline systems, Hazus computes the direct repair cost for each component only. There are no losses computed by Hazus for business interruption due to lifeline outages. Tables 12 & 13 provide a detailed breakdown in the expected lifeline losses.

Table 12: Transportation System Economic Losses
(Millions of dollars)

System	Component	Inventory Value	Economic Loss	Loss Ratio (%)
Highway	Segments	27,492.45	$0.00	0.00
	Bridges	57,716.28	$947.78	1.64
	Tunnels	0.34	$0.00	0.03
	Subtotal	**85,209**	**947.80**	
Railways	Segments	1,034.75	$0.00	0.00
	Bridges	7.62	$0.05	0.60
	Tunnels	0.00	$0.00	0.00
	Facilities	53.26	$4.11	7.72
	Subtotal	**1,096**	**4.20**	
Light Rail	Segments	204.42	$0.00	0.00
	Bridges	0.00	$0.00	0.00
	Tunnels	0.00	$0.00	0.00
	Facilities	23.97	$2.87	11.98
	Subtotal	**228**	**2.90**	
Bus	Facilities	76.46	$5.17	6.77
	Subtotal	**76**	**5.20**	
Ferry	Facilities	13.31	$2.12	15.93
	Subtotal	**13**	**2.10**	
Port	Facilities	191.71	$25.45	13.27
	Subtotal	**192**	**25.40**	
Airport	Facilities	138.46	$13.05	9.43
	Runways	797.24	$0.00	0.00
	Subtotal	**936**	**13.10**	
	Total	**87,750.30**	**1,000.60**	

Table 13: Utility System Economic Losses

(Millions of dollars)

System	Component	Inventory Value	Economic Loss	Loss Ratio (%)
Potable Water	Pipelines	0.00	$0.00	0.00
	Facilities	421.20	$12.65	3.00
	Distribution Lines	2,831.20	$21.05	0.74
	Subtotal	**3,252.46**	**$33.70**	
Waste Water	Pipelines	0.00	$0.00	0.00
	Facilities	6,510.20	$206.52	3.17
	Distribution Lines	1,698.70	$15.08	0.89
	Subtotal	**8,208.88**	**$221.60**	
Natural Gas	Pipelines	0.00	$0.00	0.00
	Facilities	3.80	$0.21	5.59
	Distribution Lines	1,132.50	$4.33	0.38
	Subtotal	**1,136.25**	**$4.54**	
Oil Systems	Pipelines	0.00	$0.00	0.00
	Facilities	0.10	$0.03	26.43
	Subtotal	**0.12**	**$0.03**	
Electrical Power	Facilities	3,415.50	$219.67	6.43
	Subtotal	**3,415.50**	**$219.67**	
Communication	Facilities	13.00	$0.44	3.36
	Subtotal	**13.00**	**$0.44**	
	Total	**16,026.19**	**$479.98**	

Appendix A: County Listing for the Region

Fairfield,CT

Hartford,CT

Litchfield,CT

Middlesex,CT

New Haven,CT

New London,CT

Tolland,CT

Windham,CT

Appendix B: Regional Population and Building Value Data

State	County Name	Population	Building Value (millions of dollars)		
			Residential	Non-Residential	Total
Connecticut					
	Fairfield	916,829	92,896	38,506	131,402
	Hartford	894,014	84,874	35,200	120,074
	Litchfield	189,927	20,467	7,244	27,712
	Middlesex	165,676	18,596	6,503	25,099
	New Haven	862,477	79,934	34,971	114,905
	New London	274,055	28,202	8,383	36,586
	Tolland	152,691	15,136	3,292	18,428
	Windham	118,428	10,508	3,523	14,031
Total State		**3,574,097**	**350,613**	**137,622**	**488,237**
Total Region		**3,574,097**	**350,613**	**137,622**	**488,237**

Hazus-MH: Earthquake Global Risk Report

Region Name: Portland_57_4

Earthquake Scenario: RERUN_Portland_57_4

Print Date: January 19, 2018

Disclaimer:

This version of Hazus utilizes 2010 Census Data.

Totals only reflect data for those census tracts/blocks included in the user's study region.

The estimates of social and economic impacts contained in this report were produced using Hazus loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific earthquake. These results can be improved by using enhanced inventory, geotechnical, and observed ground motion data.

Table of Contents

General Description of the Region

Hazus is a regional earthquake loss estimation model that was developed by the Federal Emergency Management Agency and the National Institute of Building Sciences. The primary purpose of Hazus is to provide a methodology and software application to develop earthquake losses at a regional scale. These loss estimates would be used primarily by local, state and regional officials to plan and stimulate efforts to reduce risks from earthquakes and to prepare for emergency response and recovery.

The earthquake loss estimates provided in this report was based on a region that includes 8 county(ies) from the following state(s):

Connecticut

Note:
Appendix A contains a complete listing of the counties contained in the region.

The geographical size of the region is 4,965.43 square miles and contains 829 census tracts. There are over 1,371 thousand households in the region which has a total population of 3,574,097 people (2010 Census Bureau data). The distribution of population by State and County is provided in Appendix B.

There are an estimated 1,218 thousand buildings in the region with a total building replacement value (excluding contents) of 488,242 (millions of dollars). Approximately 90.00 % of the buildings (and 72.00% of the building value) are associated with residential housing.

The replacement value of the transportation and utility lifeline systems is estimated to be 87,750 and 16,026 (millions of dollars) , respectively.

Building and Lifeline Inventory

Building Inventory

Hazus estimates that there are 1,218 thousand buildings in the region which have an aggregate total replacement value of 488,242 (millions of dollars) . Appendix B provides a general distribution of the building value by State and County.

In terms of building construction types found in the region, wood frame construction makes up 84% of the building inventory. The remaining percentage is distributed between the other general building types.

Critical Facility Inventory

Hazus breaks critical facilities into two (2) groups: essential facilities and high potential loss facilities (HPL). Essential facilities include hospitals, medical clinics, schools, fire stations, police stations and emergency operations facilities. High potential loss facilities include dams, levees, military installations, nuclear power plants and hazardous material sites.

For essential facilities, there are 49 hospitals in the region with a total bed capacity of 9,422 beds. There are 1,501 schools, 301 fire stations, 199 police stations and 43 emergency operation facilities. With respect to high potential loss facilities (HPL), there are 0 dams identified within the inventory. Of these, 0 of the dams are classified as 'high hazard'. The inventory also includes 905 hazardous material sites, 0 military installations and 2 nuclear power plants.

Transportation and Utility Lifeline Inventory

Within Hazus, the lifeline inventory is divided between transportation and utility lifeline systems. There are seven (7) transportation systems that include highways, railways, light rail, bus, ports, ferry and airports. There are six (6) utility systems that include potable water, wastewater, natural gas, crude & refined oil, electric power and communications. The lifeline inventory data are provided in Tables 1 and 2.

The total value of the lifeline inventory is over 103,776.00 (millions of dollars). This inventory includes over 4,431 kilometers of highways, 3,818 bridges, 283,121 kilometers of pipes.

Table 1: Transportation System Lifeline Inventory

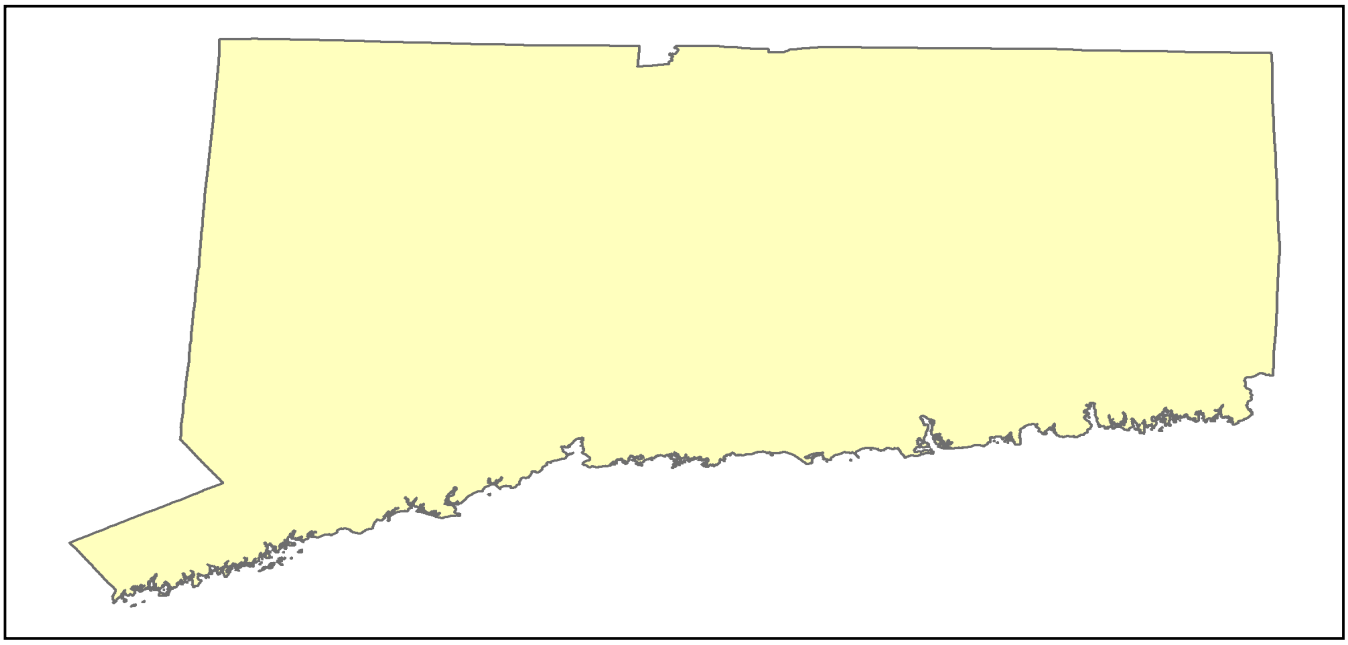
System	Component	# Locations/ # Segments	Replacement value (millions of dollars)
Highway	Bridges	3,818	57,716.30
	Segments	2,070	27,492.50
	Tunnels	1	0.30
		Subtotal	**85,209.10**
Railways	Bridges	63	7.60
	Facilities	20	53.30
	Segments	440	1,034.70
	Tunnels	0	0.00
		Subtotal	**1,095.60**
Light Rail	Bridges	0	0.00
	Facilities	9	24.00
	Segments	17	204.40
	Tunnels	0	0.00
		Subtotal	**228.40**
Bus	Facilities	61	76.50
		Subtotal	**76.50**
Ferry	Facilities	10	13.30
		Subtotal	**13.30**
Port	Facilities	96	191.70
		Subtotal	**191.70**
Airport	Facilities	13	138.50
	Runways	21	797.20
		Subtotal	**935.70**
		Total	**87,750.30**

Table 2: Utility System Lifeline Inventory

System	Component	# Locations / Segments	Replacement value (millions of dollars)
Potable Water	Distribution Lines	NA	2,831.20
	Facilities	11	421.20
	Pipelines	0	0.00
		Subtotal	**3,252.50**
Waste Water	Distribution Lines	NA	1,698.70
	Facilities	85	6,510.20
	Pipelines	0	0.00
		Subtotal	**8,208.90**
Natural Gas	Distribution Lines	NA	1,132.50
	Facilities	3	3.80
	Pipelines	0	0.00
		Subtotal	**1,136.20**
Oil Systems	Facilities	1	0.10
	Pipelines	0	0.00
		Subtotal	**0.10**
Electrical Power	Facilities	27	3,415.50
		Subtotal	**3,415.50**
Communication	Facilities	113	13.00
		Subtotal	**13.00**
		Total	**16,026.20**

Earthquake Scenario

Hazus uses the following set of information to define the earthquake parameters used for the earthquake loss estimate provided in this report.



Scenario Name	RERUN_Portland_57_4
Type of Earthquake	Arbitrary
Fault Name	NA
Historical Epicenter ID #	NA
Probabilistic Return Period	NA
Longitude of Epicenter	-72.60
Latitude of Epicenter	41.60
Earthquake Magnitude	5.70
Depth (km)	10.00
Rupture Length (Km)	NA
Rupture Orientation (degrees)	NA
Attenuation Function	Central & East US (CEUS 2008)

Building Damage

Building Damage

Hazus estimates that about 89,121 buildings will be at least moderately damaged. This is over 7.00 % of the buildings in the region. There are an estimated 8,221 buildings that will be damaged beyond repair. The definition of the 'damage states' is provided in Volume 1: Chapter 5 of the Hazus technical manual. Table 3 below summarizes the expected damage by general occupancy for the buildings in the region. Table 4 below summarizes the expected damage by general building type.

Damage categories by General Occupancy Type

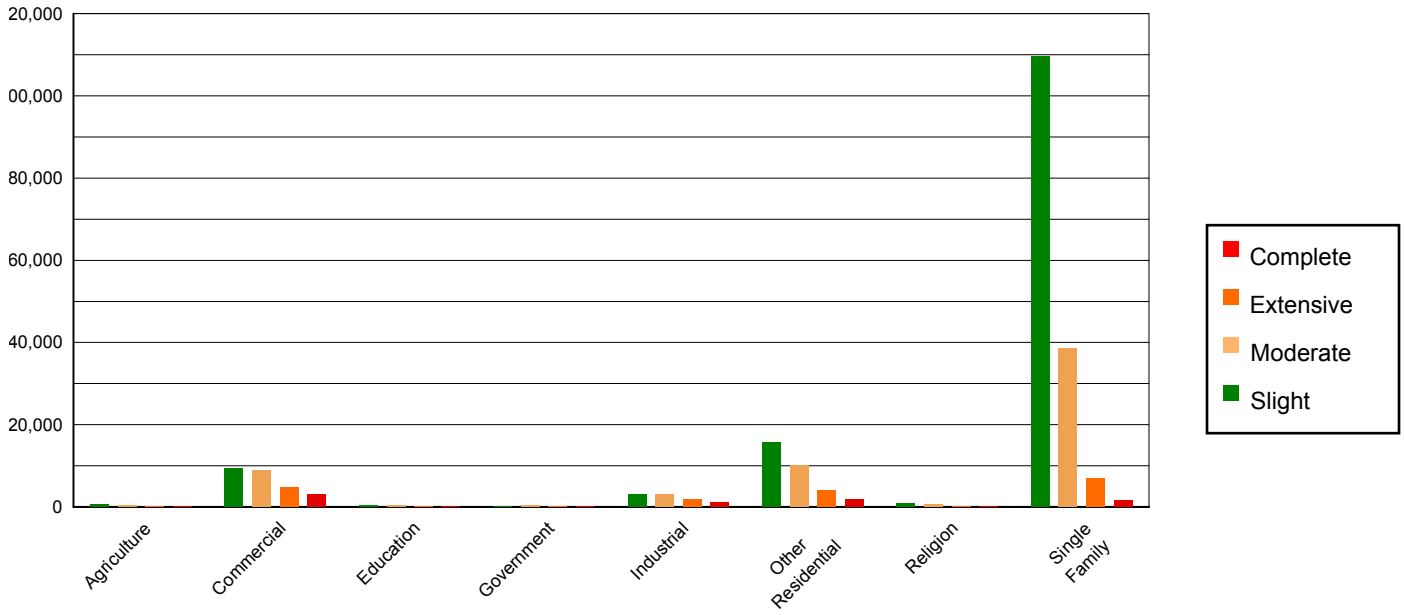


Table 3: Expected Building Damage by Occupancy

	None		Slight		Moderate		Extensive		Complete	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Agriculture	3,415	0.34	601	0.43	491	0.79	238	1.30	151	1.83
Commercial	53,937	5.45	9,452	6.76	9,001	14.40	4,785	26.05	2,967	36.09
Education	2,312	0.23	392	0.28	373	0.60	194	1.05	125	1.52
Government	1,441	0.15	272	0.19	308	0.49	181	0.99	107	1.30
Industrial	17,591	1.78	2,936	2.10	3,031	4.85	1,714	9.33	1,102	13.40
Other Residential	95,750	9.67	15,781	11.28	10,116	16.18	4,124	22.45	1,953	23.75
Religion	4,754	0.48	753	0.54	547	0.88	257	1.40	150	1.82
Single Family	810,743	81.90	109,716	78.42	38,663	61.83	6,877	37.44	1,666	20.27
Total	**989,944**		**139,903**		**62,530**		**18,371**		**8,222**	

Table 4: Expected Building Damage by Building Type (All Design Levels)

	None		Slight		Moderate		Extensive		Complete	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Wood	860,178	86.89	115434	82.51	38,963	62.31	5,954	32.41	744	9.05
Steel	38,334	3.87	6246	4.46	7,364	11.78	4,480	24.39	2,976	36.20
Concrete	8,161	0.82	1327	0.95	1,640	2.62	997	5.43	620	7.54
Precast	2,676	0.27	391	0.28	516	0.82	352	1.92	207	2.51
RM	14,460	1.46	1589	1.14	2,029	3.24	1,355	7.38	589	7.16
URM	58,532	5.91	12845	9.18	9,916	15.86	4,313	23.48	2,676	32.55
MH	7,604	0.77	2071	1.48	2,100	3.36	919	5.00	410	4.99
Total	**989,944**		**139,903**		**62,530**		**18,371**		**8,222**	

*Note:
RM Reinforced Masonry
URM Unreinforced Masonry
MH Manufactured Housing

Essential Facility Damage

Before the earthquake, the region had 9,422 hospital beds available for use. On the day of the earthquake, the model estimates that only 5,365 hospital beds (57.00%) are available for use by patients already in the hospital and those injured by the earthquake. After one week, 72.00% of the beds will be back in service. By 30 days, 85.00% will be operational.

Table 5: Expected Damage to Essential Facilities

Classification	Total	# Facilities		
		At Least Moderate Damage > 50%	Complete Damage > 50%	With Functionality > 50% on day 1
Hospitals	49	8	5	31
Schools	1,501	139	45	1,166
EOCs	43	6	4	30
PoliceStations	199	14	5	166
FireStations	301	30	10	250

Transportation Lifeline Damage

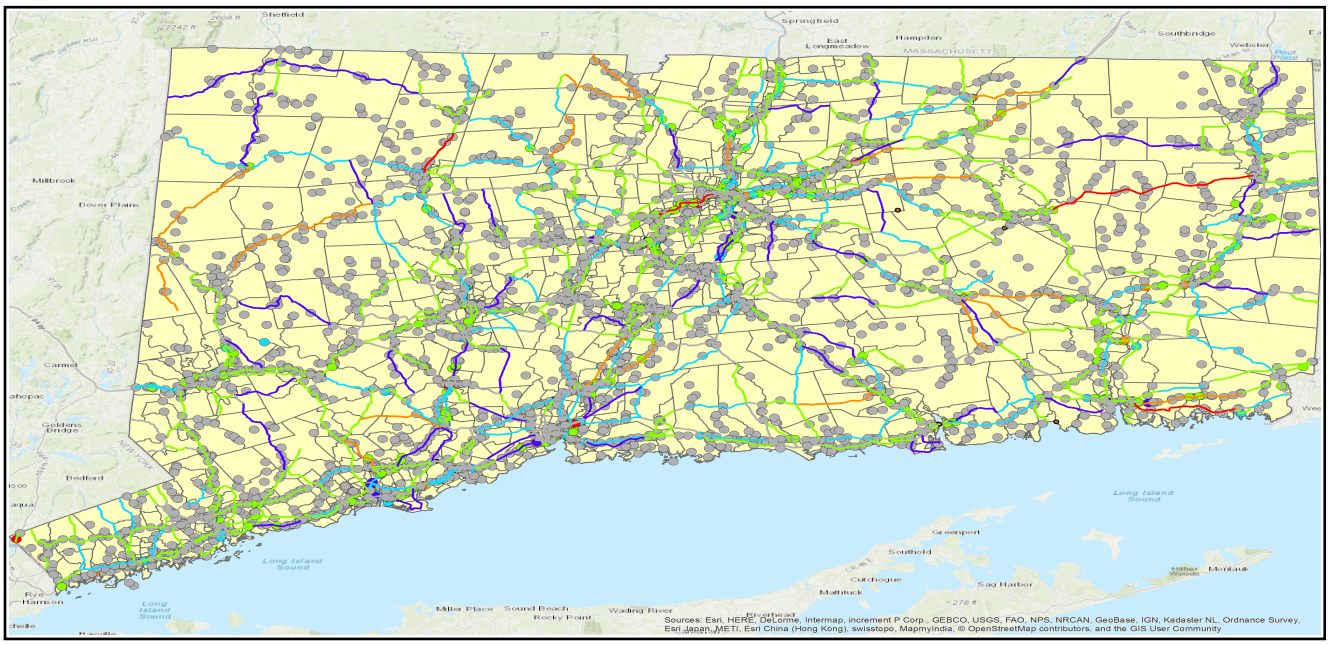


Table 6: Expected Damage to the Transportation Systems

System	Component		Number of Locations			
		Locations/ Segments	With at Least Mod. Damage	With Complete Damage	With Functionality > 50 %	
					After Day 1	After Day 7
Highway	Segments	2,070	0	0	2,070	2,070
	Bridges	3,818	127	18	3,698	3,731
	Tunnels	1	0	0	1	1
Railways	Segments	440	0	0	440	440
	Bridges	63	0	0	63	63
	Tunnels	0	0	0	0	0
	Facilities	20	1	0	20	20
Light Rail	Segments	17	0	0	17	17
	Bridges	0	0	0	0	0
	Tunnels	0	0	0	0	0
	Facilities	9	0	0	9	9
Bus	Facilities	61	3	0	58	61
Ferry	Facilities	10	2	0	8	10
Port	Facilities	96	12	0	85	96
Airport	Facilities	13	0	0	13	13
	Runways	21	0	0	21	21

Table 6 provides damage estimates for the transportation system.

Note: Roadway segments, railroad tracks and light rail tracks are assumed to be damaged by ground failure only. If ground failure maps are not provided, damage estimates to these components will not be computed.

Tables 7-9 provide information on the damage to the utility lifeline systems. Table 7 provides damage to the utility system facilities. Table 8 provides estimates on the number of leaks and breaks by the pipelines of the utility systems. For electric power and potable water, Hazus performs a simplified system performance analysis. Table 9 provides a summary of the system performance information.

Table 7 : Expected Utility System Facility Damage

System	# of Locations				
	Total #	With at Least Moderate Damage	With Complete Damage	with Functionality > 50 %	
				After Day 1	After Day 7
Potable Water	11	1	0	10	11
Waste Water	85	7	0	68	80
Natural Gas	3	1	0	2	3
Oil Systems	1	1	0	0	0
Electrical Power	27	7	0	16	27
Communication	113	9	0	109	113

Table 8 : Expected Utility System Pipeline Damage (Site Specific)

System	Total Pipelines Length (kms)	Number of Leaks	Number of Breaks
Potable Water	141,561	8073	2018
Waste Water	84,936	5785	1446
Natural Gas	56,624	1659	415
Oil	0	0	0

Table 9: Expected Potable Water and Electric Power System Performance

	Total # of Households	Number of Households without Service				
		At Day 1	At Day 3	At Day 7	At Day 30	At Day 90
Potable Water	1,371,087	45,811	39,457	27,289	715	0
Electric Power		128,458	79,013	31,668	6,040	165

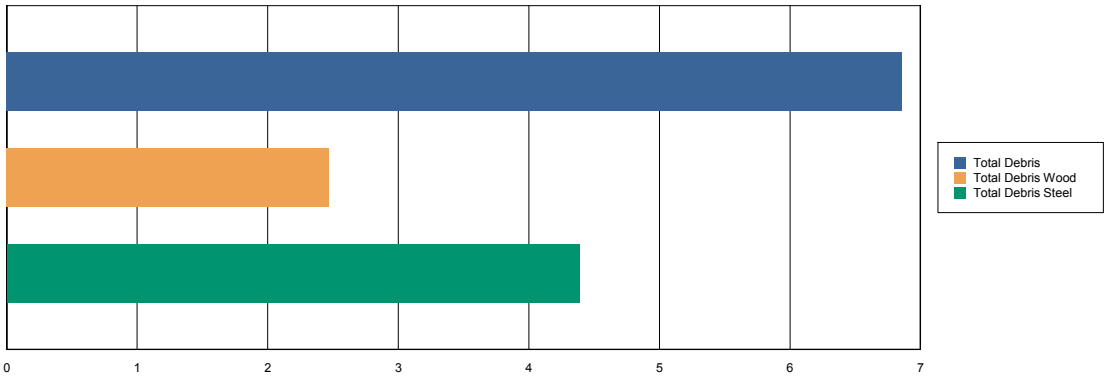
Induced Earthquake Damage

Debris Generation

Hazus estimates the amount of debris that will be generated by the earthquake. The model breaks the debris into two general categories: a) Brick/Wood and b) Reinforced Concrete/Steel. This distinction is made because of the different types of material handling equipment required to handle the debris.

The model estimates that a total of 6.86 million tons of debris will be generated. Of the total amount, Brick/Wood comprises 36.00% of the total, with the remainder being Reinforced Concrete/Steel. If the debris tonnage is converted to an estimated number of truckloads, it will require 274,360 truckloads (@25 tons/truck) to remove the debris generated by the earthquake.

Earthquake Debris (millions of tons)



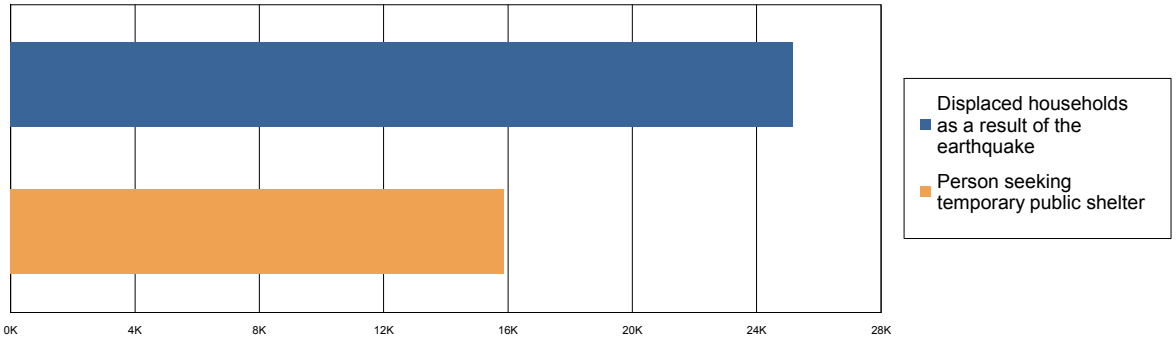
Brick/ Wood	Reinforced Concrete/Steel	Total Debris	Truck Load
2.47	4.39	6.86	274,360 (@25 tons/truck)

Social Impact

Shelter Requirement

Hazus estimates the number of households that are expected to be displaced from their homes due to the earthquake and the number of displaced people that will require accommodations in temporary public shelters. The model estimates 25,154 households to be displaced due to the earthquake. Of these, 15,872 people (out of a total population of 3,574,097) will seek temporary shelter in public shelters.

Displaced Households/ Persons Seeking Short Term Public Shelter



Displaced households as a result of the earthquake	Persons seeking temporary public shelter
25,154	15,872

Casualties

Hazus estimates the number of people that will be injured and killed by the earthquake. The casualties are broken down into four (4) severity levels that describe the extent of the injuries. The levels are described as follows;

- Severity Level 1: Injuries will require medical attention but hospitalization is not needed.
- Severity Level 2: Injuries will require hospitalization but are not considered life-threatening
- Severity Level 3: Injuries will require hospitalization and can become life threatening if not promptly treated.
- Severity Level 4: Victims are killed by the earthquake.

The casualty estimates are provided for three (3) times of day: 2:00 AM, 2:00 PM and 5:00 PM. These times represent the periods of the day that different sectors of the community are at their peak occupancy loads. The 2:00 AM estimate considers that the residential occupancy load is maximum, the 2:00 PM estimate considers that the educational, commercial and industrial sector loads are maximum and 5:00 PM represents peak commute time.

Table 10 provides a summary of the casualties estimated for this earthquake

Table 10: Casualty Estimates

		Level 1	Level 2	Level 3	Level 4
2 AM	Commercial	113	31	4	9
	Commuting	0	0	1	0
	Educational	0	0	0	0
	Hotels	0	0	0	0
	Industrial	162	45	7	13
	Other-Residential	2,677	722	112	221
	Single Family	1,082	207	24	47
	Total	**4,034**	**1,004**	**148**	**291**
2 PM	Commercial	6,366	1,726	255	497
	Commuting	3	4	7	1
	Educational	2,595	724	114	222
	Hotels	0	0	0	0
	Industrial	1,200	331	50	97
	Other-Residential	542	146	23	44
	Single Family	208	41	5	10
	Total	**10,915**	**2,973**	**454**	**871**
5 PM	Commercial	4,483	1,218	182	349
	Commuting	59	78	133	26
	Educational	310	87	14	27
	Hotels	0	0	0	0
	Industrial	750	207	31	61
	Other-Residential	1,056	287	45	86
	Single Family	427	85	11	20
	Total	**7,085**	**1,961**	**415**	**568**

Economic Loss

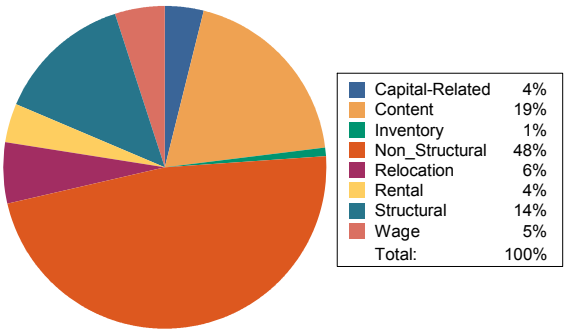
The total economic loss estimated for the earthquake is 29,542.09 (millions of dollars), which includes building and lifeline related losses based on the region's available inventory. The following three sections provide more detailed information about these losses.

Building-Related Losses

The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the earthquake. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the earthquake.

The total building-related losses were 26,831.28 (millions of dollars); 19 % of the estimated losses were related to the business interruption of the region. By far, the largest loss was sustained by the residential occupancies which made up over 41 % of the total loss. Table 11 below provides a summary of the losses associated with the building damage.

Earthquake Losses by Loss Type ($ millions)



Earthquake Losses by Occupancy Type ($ millions)

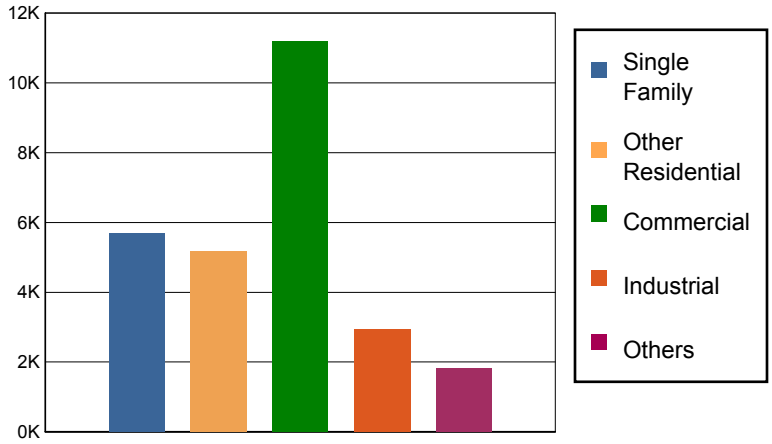


Table 11: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Single Family	Other Residential	Commercial	Industrial	Others	Total
Income Losses							
	Wage	0.00	148.55	1,093.02	57.51	67.13	1,366.21
	Capital-Related	0.00	63.32	917.79	35.71	14.85	1,031.66
	Rental	101.72	353.10	473.07	19.65	31.66	979.19
	Relocation	354.17	200.59	782.06	91.71	229.27	1,657.79
	Subtotal	**455.88**	**765.55**	**3,265.94**	**204.58**	**342.90**	**5,034.86**
Capital Stock Losses							
	Structural	685.87	674.20	1,599.60	414.85	285.39	3,659.92
	Non_Structural	3,322.82	3,022.59	4,281.32	1,329.21	812.67	12,768.61
	Content	1,226.57	718.26	2,005.47	849.72	378.23	5,178.24
	Inventory	0.00	0.00	45.20	140.89	3.56	189.65
	Subtotal	**5,235.26**	**4,415.05**	**7,931.59**	**2,734.67**	**1,479.85**	**21,796.42**
	Total	**5,691.15**	**5,180.60**	**11,197.53**	**2,939.25**	**1,822.76**	**26,831.28**

Transportation and Utility Lifeline Losses

For the transportation and utility lifeline systems, Hazus computes the direct repair cost for each component only. There are no losses computed by Hazus for business interruption due to lifeline outages. Tables 12 & 13 provide a detailed breakdown in the expected lifeline losses.

Table 12: Transportation System Economic Losses
(Millions of dollars)

System	Component	Inventory Value	Economic Loss	Loss Ratio (%)
Highway	Segments	27,492.45	$0.00	0.00
	Bridges	57,716.28	$1837.38	3.18
	Tunnels	0.34	$0.00	0.06
	Subtotal	**85,209**	**1,837.40**	
Railways	Segments	1,034.75	$0.00	0.00
	Bridges	7.62	$0.17	2.20
	Tunnels	0.00	$0.00	0.00
	Facilities	53.26	$5.52	10.36
	Subtotal	**1,096**	**5.70**	
Light Rail	Segments	204.42	$0.00	0.00
	Bridges	0.00	$0.00	0.00
	Tunnels	0.00	$0.00	0.00
	Facilities	23.97	$1.78	7.42
	Subtotal	**228**	**1.80**	
Bus	Facilities	76.46	$7.21	9.42
	Subtotal	**76**	**7.20**	
Ferry	Facilities	13.31	$2.08	15.60
	Subtotal	**13**	**2.10**	
Port	Facilities	191.71	$26.48	13.81
	Subtotal	**192**	**26.50**	
Airport	Facilities	138.46	$12.17	8.79
	Runways	797.24	$0.00	0.00
	Subtotal	**936**	**12.20**	
	Total	**87,750.30**	**1,892.80**	

Table 13: Utility System Economic Losses

(Millions of dollars)

System	Component	Inventory Value	Economic Loss	Loss Ratio (%)
Potable Water	Pipelines	0.00	$0.00	0.00
	Facilities	421.20	$18.11	4.30
	Distribution Lines	2,831.20	$36.33	1.28
	Subtotal	**3,252.46**	**$54.44**	
Waste Water	Pipelines	0.00	$0.00	0.00
	Facilities	6,510.20	$384.14	5.90
	Distribution Lines	1,698.70	$26.03	1.53
	Subtotal	**8,208.88**	**$410.18**	
Natural Gas	Pipelines	0.00	$0.00	0.00
	Facilities	3.80	$0.67	17.86
	Distribution Lines	1,132.50	$7.47	0.66
	Subtotal	**1,136.25**	**$8.14**	
Oil Systems	Pipelines	0.00	$0.00	0.00
	Facilities	0.10	$0.06	50.52
	Subtotal	**0.12**	**$0.06**	
Electrical Power	Facilities	3,415.50	$344.48	10.09
	Subtotal	**3,415.50**	**$344.48**	
Communication	Facilities	13.00	$0.75	5.79
	Subtotal	**13.00**	**$0.75**	
	Total	**16,026.19**	**$818.04**	

Appendix A: County Listing for the Region

Fairfield,CT

Hartford,CT

Litchfield,CT

Middlesex,CT

New Haven,CT

New London,CT

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Windham,CT

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Total Region		**3,574,097**	**350,613**	**137,622**	**488,237**

Hazus-MH: Earthquake Global Risk Report

Region Name: Stamford_57

Earthquake Scenario: RERUN_Stamford_5.7

Print Date: January 19, 2018

Disclaimer:

This version of Hazus utilizes 2010 Census Data.

Totals only reflect data for those census tracts/blocks included in the user's study region.

The estimates of social and economic impacts contained in this report were produced using Hazus loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific earthquake. These results can be improved by using enhanced inventory, geotechnical, and observed ground motion data.

Table of Contents

General Description of the Region

Hazus is a regional earthquake loss estimation model that was developed by the Federal Emergency Management Agency and the National Institute of Building Sciences. The primary purpose of Hazus is to provide a methodology and software application to develop earthquake losses at a regional scale. These loss estimates would be used primarily by local, state and regional officials to plan and stimulate efforts to reduce risks from earthquakes and to prepare for emergency response and recovery.

The earthquake loss estimates provided in this report was based on a region that includes 8 county(ies) from the following state(s):

Connecticut

Note:
Appendix A contains a complete listing of the counties contained in the region.

The geographical size of the region is 4,965.43 square miles and contains 829 census tracts. There are over 1,371 thousand households in the region which has a total population of 3,574,097 people (2010 Census Bureau data). The distribution of population by State and County is provided in Appendix B.

There are an estimated 1,218 thousand buildings in the region with a total building replacement value (excluding contents) of 488,242 (millions of dollars). Approximately 90.00 % of the buildings (and 72.00% of the building value) are associated with residential housing.

The replacement value of the transportation and utility lifeline systems is estimated to be 87,750 and 16,026 (millions of dollars) , respectively.

Building and Lifeline Inventory

Building Inventory

Hazus estimates that there are 1,218 thousand buildings in the region which have an aggregate total replacement value of 488,242 (millions of dollars) . Appendix B provides a general distribution of the building value by State and County.

In terms of building construction types found in the region, wood frame construction makes up 84% of the building inventory. The remaining percentage is distributed between the other general building types.

Critical Facility Inventory

Hazus breaks critical facilities into two (2) groups: essential facilities and high potential loss facilities (HPL). Essential facilities include hospitals, medical clinics, schools, fire stations, police stations and emergency operations facilities. High potential loss facilities include dams, levees, military installations, nuclear power plants and hazardous material sites.

For essential facilities, there are 49 hospitals in the region with a total bed capacity of 9,422 beds. There are 1,501 schools, 301 fire stations, 199 police stations and 43 emergency operation facilities. With respect to high potential loss facilities (HPL), there are 0 dams identified within the inventory. Of these, 0 of the dams are classified as 'high hazard'. The inventory also includes 905 hazardous material sites, 0 military installations and 2 nuclear power plants.

Transportation and Utility Lifeline Inventory

Within Hazus, the lifeline inventory is divided between transportation and utility lifeline systems. There are seven (7) transportation systems that include highways, railways, light rail, bus, ports, ferry and airports. There are six (6) utility systems that include potable water, wastewater, natural gas, crude & refined oil, electric power and communications. The lifeline inventory data are provided in Tables 1 and 2.

The total value of the lifeline inventory is over 103,776.00 (millions of dollars). This inventory includes over 4,431 kilometers of highways, 3,818 bridges, 283,121 kilometers of pipes.

Table 1: Transportation System Lifeline Inventory

System	Component	# Locations/ # Segments	Replacement value (millions of dollars)
Highway	Bridges	3,818	57,716.30
	Segments	2,070	27,492.50
	Tunnels	1	0.30
		Subtotal	**85,209.10**
Railways	Bridges	63	7.60
	Facilities	20	53.30
	Segments	440	1,034.70
	Tunnels	0	0.00
		Subtotal	**1,095.60**
Light Rail	Bridges	0	0.00
	Facilities	9	24.00
	Segments	17	204.40
	Tunnels	0	0.00
		Subtotal	**228.40**
Bus	Facilities	61	76.50
		Subtotal	**76.50**
Ferry	Facilities	10	13.30
		Subtotal	**13.30**
Port	Facilities	96	191.70
		Subtotal	**191.70**
Airport	Facilities	13	138.50
	Runways	21	797.20
		Subtotal	**935.70**
		Total	**87,750.30**

Table 2: Utility System Lifeline Inventory

System	Component	# Locations / Segments	Replacement value (millions of dollars)
Potable Water	Distribution Lines	NA	2,831.20
	Facilities	11	421.20
	Pipelines	0	0.00
		Subtotal	**3,252.50**
Waste Water	Distribution Lines	NA	1,698.70
	Facilities	85	6,510.20
	Pipelines	0	0.00
		Subtotal	**8,208.90**
Natural Gas	Distribution Lines	NA	1,132.50
	Facilities	3	3.80
	Pipelines	0	0.00
		Subtotal	**1,136.20**
Oil Systems	Facilities	1	0.10
	Pipelines	0	0.00
		Subtotal	**0.10**
Electrical Power	Facilities	27	3,415.50
		Subtotal	**3,415.50**
Communication	Facilities	113	13.00
		Subtotal	**13.00**
		Total	**16,026.20**

Earthquake Scenario

Hazus uses the following set of information to define the earthquake parameters used for the earthquake loss estimate provided in this report.

Scenario Name	RERUN_Stamford_5.7
Type of Earthquake	Arbitrary
Fault Name	NA
Historical Epicenter ID #	NA
Probabilistic Return Period	NA
Longitude of Epicenter	-73.56
Latitude of Epicenter	41.11
Earthquake Magnitude	5.70
Depth (km)	10.00
Rupture Length (Km)	NA
Rupture Orientation (degrees)	NA
Attenuation Function	Central & East US (CEUS 2008)

Building Damage

Building Damage

Hazus estimates that about 64,295 buildings will be at least moderately damaged. This is over 5.00 % of the buildings in the region. There are an estimated 9,637 buildings that will be damaged beyond repair. The definition of the 'damage states' is provided in Volume 1: Chapter 5 of the Hazus technical manual. Table 3 below summarizes the expected damage by general occupancy for the buildings in the region. Table 4 below summarizes the expected damage by general building type.

Damage categories by General Occupancy Type

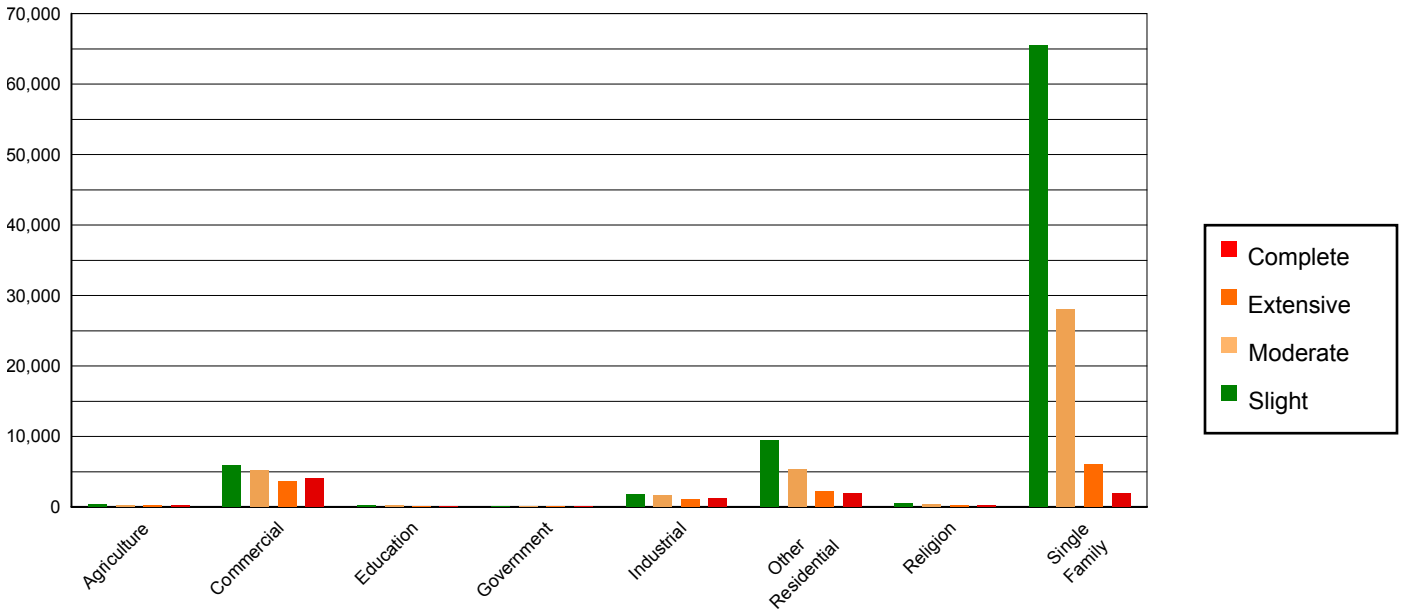


Table 3: Expected Building Damage by Occupancy

	None		Slight		Moderate		Extensive		Complete	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Agriculture	3,858	0.36	355	0.42	297	0.72	196	1.44	190	1.97
Commercial	61,524	5.74	5,847	6.98	5,134	12.51	3,661	26.86	3,978	41.27
Education	2,684	0.25	232	0.28	194	0.47	136	1.00	149	1.55
Government	1,904	0.18	138	0.16	108	0.26	74	0.54	85	0.88
Industrial	20,581	1.92	1,810	2.16	1,585	3.86	1,131	8.30	1,266	13.13
Other Residential	108,897	10.17	9,391	11.22	5,373	13.10	2,171	15.93	1,892	19.63
Religion	5,198	0.49	499	0.60	349	0.85	199	1.46	216	2.24
Single Family	866,305	80.89	65,450	78.17	27,989	68.22	6,059	44.46	1,863	19.33
Total	**1,070,951**		**83,723**		**41,029**		**13,628**		**9,638**	

Table 4: Expected Building Damage by Building Type (All Design Levels)

	None		Slight		Moderate		Extensive		Complete	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Wood	917,148	85.64	68372	81.66	28,803	70.20	5,930	43.52	1,020	10.58
Steel	45,842	4.28	3763	4.49	3,549	8.65	2,835	20.80	3,412	35.40
Concrete	10,032	0.94	789	0.94	721	1.76	541	3.97	662	6.86
Precast	3,155	0.29	265	0.32	284	0.69	198	1.45	242	2.51
RM	16,340	1.53	952	1.14	1,033	2.52	861	6.32	836	8.68
URM	67,409	6.29	8422	10.06	5,963	14.53	3,109	22.81	3,380	35.07
MH	11,026	1.03	1160	1.39	676	1.65	156	1.14	87	0.90
Total	**1,070,951**		**83,723**		**41,029**		**13,628**		**9,638**	

*Note:
RM Reinforced Masonry
URM Unreinforced Masonry
MH Manufactured Housing

Essential Facility Damage

Before the earthquake, the region had 9,422 hospital beds available for use. On the day of the earthquake, the model estimates that only 7,248 hospital beds (77.00%) are available for use by patients already in the hospital and those injured by the earthquake. After one week, 86.00% of the beds will be back in service. By 30 days, 92.00% will be operational.

Table 5: Expected Damage to Essential Facilities

Classification	Total	# Facilities		
		At Least Moderate Damage > 50%	Complete Damage > 50%	With Functionality > 50% on day 1
Hospitals	49	4	3	45
Schools	1,501	120	85	1,340
EOCs	43	3	2	39
PoliceStations	199	9	4	187
FireStations	301	13	10	283

Transportation Lifeline Damage

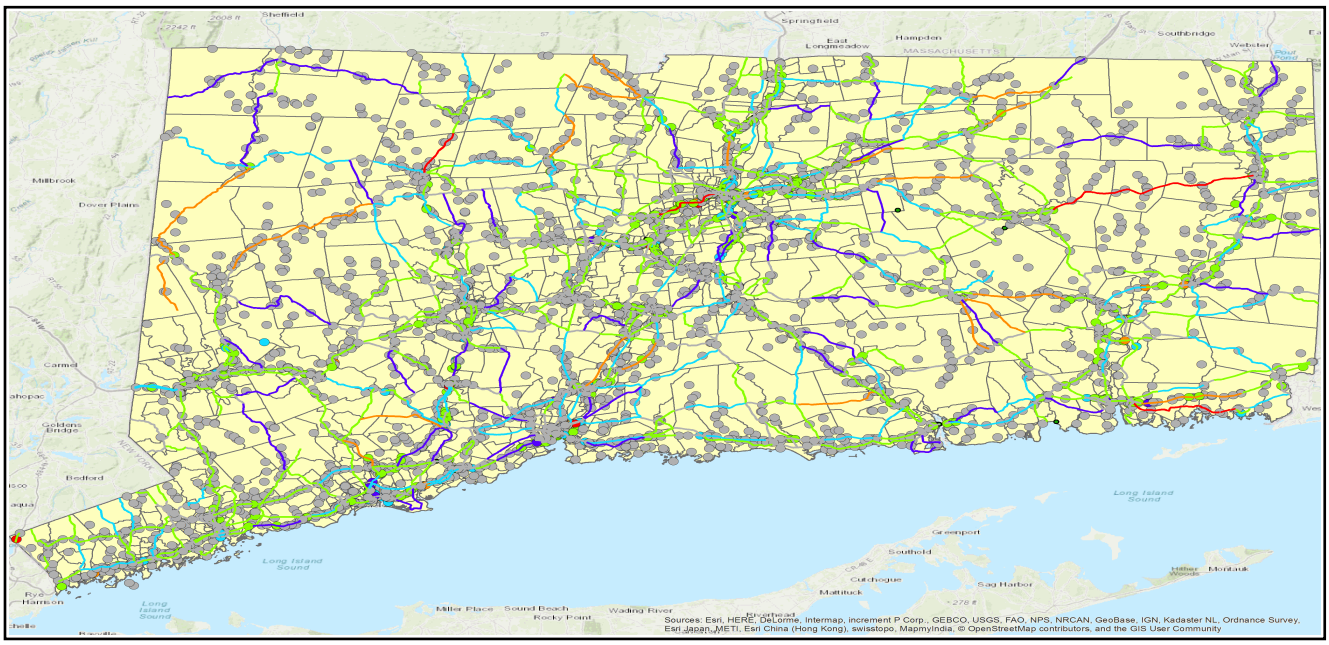


Table 6: Expected Damage to the Transportation Systems

System	Component		Number of Locations			
		Locations/ Segments	With at Least Mod. Damage	With Complete Damage	With Functionality > 50 %	
					After Day 1	After Day 7
Highway	Segments	2,070	0	0	2,070	2,070
	Bridges	3,818	58	4	3,761	3,773
	Tunnels	1	0	0	1	1
Railways	Segments	440	0	0	440	440
	Bridges	63	0	0	63	63
	Tunnels	0	0	0	0	0
	Facilities	20	2	0	18	20
Light Rail	Segments	17	0	0	17	17
	Bridges	0	0	0	0	0
	Tunnels	0	0	0	0	0
	Facilities	9	0	0	9	9
Bus	Facilities	61	4	0	58	61
Ferry	Facilities	10	2	0	10	10
Port	Facilities	96	0	0	96	96
Airport	Facilities	13	0	0	13	13
	Runways	21	0	0	21	21

Table 6 provides damage estimates for the transportation system.

Note: Roadway segments, railroad tracks and light rail tracks are assumed to be damaged by ground failure only. If ground failure maps are not provided, damage estimates to these components will not be computed.

Tables 7-9 provide information on the damage to the utility lifeline systems. Table 7 provides damage to the utility system facilities. Table 8 provides estimates on the number of leaks and breaks by the pipelines of the utility systems. For electric power and potable water, Hazus performs a simplified system performance analysis. Table 9 provides a summary of the system performance information.

Table 7 : Expected Utility System Facility Damage

System	# of Locations				
	Total #	With at Least Moderate Damage	With Complete Damage	with Functionality > 50 %	
				After Day 1	After Day 7
Potable Water	11	0	0	11	11
Waste Water	85	7	0	75	82
Natural Gas	3	0	0	3	3
Oil Systems	1	0	0	1	1
Electrical Power	27	3	0	24	27
Communication	113	8	0	106	113

Table 8 : Expected Utility System Pipeline Damage (Site Specific)

System	Total Pipelines Length (kms)	Number of Leaks	Number of Breaks
Potable Water	141,561	6811	1703
Waste Water	84,936	4882	1220
Natural Gas	56,624	1400	350
Oil	0	0	0

Table 9: Expected Potable Water and Electric Power System Performance

	Total # of Households	Number of Households without Service				
		At Day 1	At Day 3	At Day 7	At Day 30	At Day 90
Potable Water	1,371,087	52,205	49,130	43,059	12,892	0
Electric Power		109,484	78,458	38,512	8,579	127

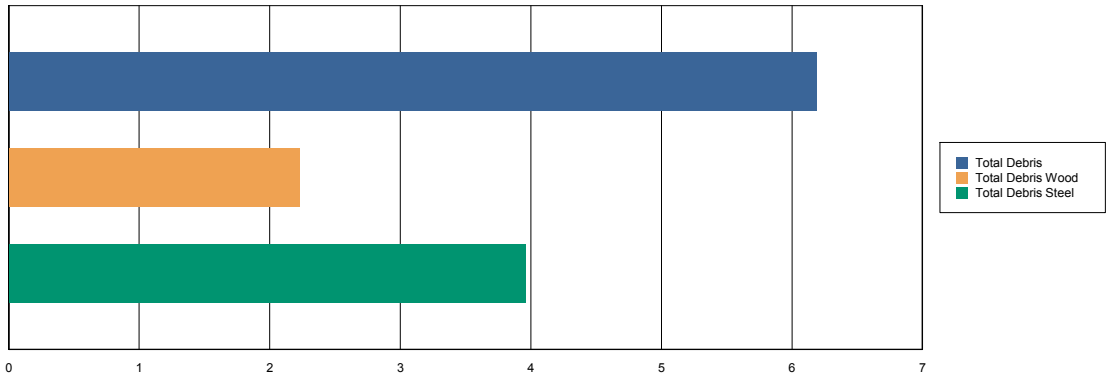
Induced Earthquake Damage

Debris Generation

Hazus estimates the amount of debris that will be generated by the earthquake. The model breaks the debris into two general categories: a) Brick/Wood and b) Reinforced Concrete/Steel. This distinction is made because of the different types of material handling equipment required to handle the debris.

The model estimates that a total of 6.19 million tons of debris will be generated. Of the total amount, Brick/Wood comprises 36.00% of the total, with the remainder being Reinforced Concrete/Steel. If the debris tonnage is converted to an estimated number of truckloads, it will require 247,560 truckloads (@25 tons/truck) to remove the debris generated by the earthquake.

Earthquake Debris (millions of tons)



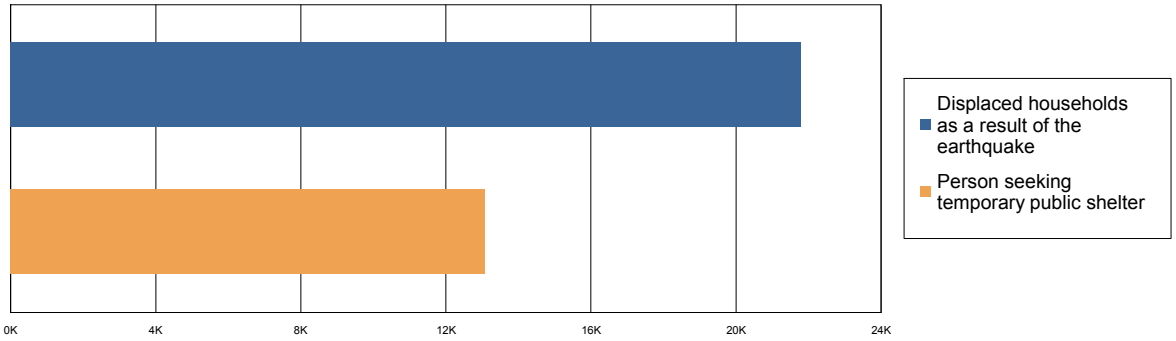
Brick/ Wood	Reinforced Concrete/Steel	Total Debris	Truck Load
2.23	3.96	6.19	247,560 (@25 tons/truck)

Social Impact

Shelter Requirement

Hazus estimates the number of households that are expected to be displaced from their homes due to the earthquake and the number of displaced people that will require accommodations in temporary public shelters. The model estimates 21,779 households to be displaced due to the earthquake. Of these, 13,069 people (out of a total population of 3,574,097) will seek temporary shelter in public shelters.

Displaced Households/ Persons Seeking Short Term Public Shelter



Displaced households as a result of the earthquake	Persons seeking temporary public shelter
21,779	13,069

Casualties

Hazus estimates the number of people that will be injured and killed by the earthquake. The casualties are broken down into four (4) severity levels that describe the extent of the injuries. The levels are described as follows;

- Severity Level 1: Injuries will require medical attention but hospitalization is not needed.
- Severity Level 2: Injuries will require hospitalization but are not considered life-threatening
- Severity Level 3: Injuries will require hospitalization and can become life threatening if not promptly treated.
- Severity Level 4: Victims are killed by the earthquake.

The casualty estimates are provided for three (3) times of day: 2:00 AM, 2:00 PM and 5:00 PM. These times represent the periods of the day that different sectors of the community are at their peak occupancy loads. The 2:00 AM estimate considers that the residential occupancy load is maximum, the 2:00 PM estimate considers that the educational, commercial and industrial sector loads are maximum and 5:00 PM represents peak commute time.

Table 10 provides a summary of the casualties estimated for this earthquake

Table 10: Casualty Estimates

		Level 1	Level 2	Level 3	Level 4
2 AM	Commercial	119	35	5	11
	Commuting	0	0	1	0
	Educational	0	0	0	0
	Hotels	0	0	0	0
	Industrial	112	33	5	10
	Other-Residential	2,761	816	132	262
	Single Family	1,086	236	30	58
	Total	**4,079**	**1,121**	**173**	**340**
2 PM	Commercial	6,699	1,960	302	592
	Commuting	3	4	6	1
	Educational	2,539	759	123	241
	Hotels	0	0	0	0
	Industrial	830	242	38	73
	Other-Residential	529	157	26	49
	Single Family	226	51	7	13
	Total	**10,825**	**3,174**	**503**	**969**
5 PM	Commercial	4,622	1,353	210	406
	Commuting	52	76	120	24
	Educational	190	55	9	17
	Hotels	0	0	0	0
	Industrial	519	152	24	46
	Other-Residential	1,097	328	54	103
	Single Family	432	97	13	24
	Total	**6,913**	**2,061**	**430**	**620**

Economic Loss

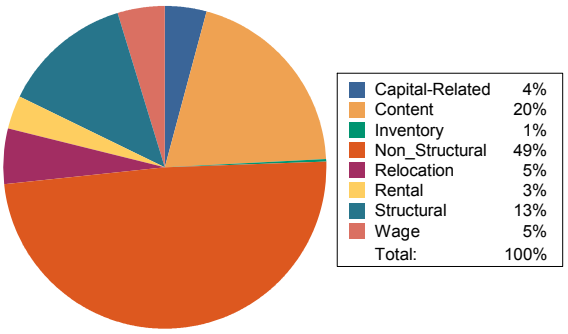
The total economic loss estimated for the earthquake is 27,388.24 (millions of dollars), which includes building and lifeline related losses based on the region's available inventory. The following three sections provide more detailed information about these losses.

Building-Related Losses

The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the earthquake. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the earthquake.

The total building-related losses were 26,034.39 (millions of dollars); 18 % of the estimated losses were related to the business interruption of the region. By far, the largest loss was sustained by the residential occupancies which made up over 37 % of the total loss. Table 11 below provides a summary of the losses associated with the building damage.

Earthquake Losses by Loss Type ($ millions)



Earthquake Losses by Occupancy Type ($ millions)

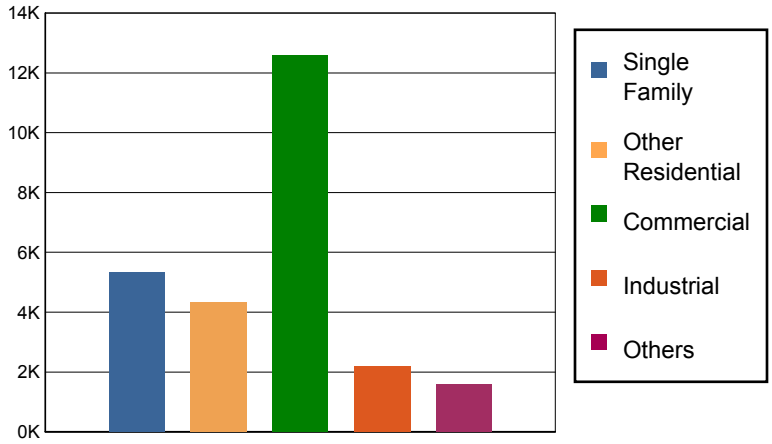


Table 11: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Single Family	Other Residential	Commercial	Industrial	Others	Total
Income Losses							
	Wage	0.00	166.03	1,006.62	32.85	47.86	1,253.36
	Capital-Related	0.00	70.76	973.58	19.83	11.36	1,075.53
	Rental	89.50	282.37	476.66	12.03	19.79	880.34
	Relocation	312.41	155.05	732.38	59.75	166.41	1,425.99
	Subtotal	**401.91**	**674.21**	**3,189.24**	**124.45**	**245.41**	**4,635.22**
Capital Stock Losses							
	Structural	660.84	496.01	1,666.26	285.85	251.80	3,360.75
	Non_Structural	3,127.94	2,566.71	5,252.96	1,032.59	743.99	12,724.20
	Content	1,138.36	608.34	2,434.37	651.97	349.98	5,183.02
	Inventory	0.00	0.00	37.52	89.66	4.03	131.20
	Subtotal	**4,927.14**	**3,671.06**	**9,391.11**	**2,060.07**	**1,349.79**	**21,399.18**
	Total	**5,329.05**	**4,345.27**	**12,580.35**	**2,184.52**	**1,595.20**	**26,034.39**

Transportation and Utility Lifeline Losses

For the transportation and utility lifeline systems, Hazus computes the direct repair cost for each component only. There are no losses computed by Hazus for business interruption due to lifeline outages. Tables 12 & 13 provide a detailed breakdown in the expected lifeline losses.

Table 12: Transportation System Economic Losses
(Millions of dollars)

System	Component	Inventory Value	Economic Loss	Loss Ratio (%)
Highway	Segments	27,492.45	$0.00	0.00
	Bridges	57,716.28	$859.22	1.49
	Tunnels	0.34	$0.00	0.00
	Subtotal	**85,209**	**859.20**	
Railways	Segments	1,034.75	$0.00	0.00
	Bridges	7.62	$0.04	0.49
	Tunnels	0.00	$0.00	0.00
	Facilities	53.26	$3.80	7.14
	Subtotal	**1,096**	**3.80**	
Light Rail	Segments	204.42	$0.00	0.00
	Bridges	0.00	$0.00	0.00
	Tunnels	0.00	$0.00	0.00
	Facilities	23.97	$0.41	1.69
	Subtotal	**228**	**0.40**	
Bus	Facilities	76.46	$6.10	7.97
	Subtotal	**76**	**6.10**	
Ferry	Facilities	13.31	$1.73	13.03
	Subtotal	**13**	**1.70**	
Port	Facilities	191.71	$5.67	2.96
	Subtotal	**192**	**5.70**	
Airport	Facilities	138.46	$3.55	2.57
	Runways	797.24	$0.00	0.00
	Subtotal	**936**	**3.60**	
	Total	**87,750.30**	**880.50**	

Table 13: Utility System Economic Losses

(Millions of dollars)

System	Component	Inventory Value	Economic Loss	Loss Ratio (%)
Potable Water	Pipelines	0.00	$0.00	0.00
	Facilities	421.20	$8.13	1.93
	Distribution Lines	2,831.20	$30.65	1.08
	Subtotal	**3,252.46**	**$38.78**	
Waste Water	Pipelines	0.00	$0.00	0.00
	Facilities	6,510.20	$249.23	3.83
	Distribution Lines	1,698.70	$21.97	1.29
	Subtotal	**8,208.88**	**$271.20**	
Natural Gas	Pipelines	0.00	$0.00	0.00
	Facilities	3.80	$0.00	0.04
	Distribution Lines	1,132.50	$6.30	0.56
	Subtotal	**1,136.25**	**$6.30**	
Oil Systems	Pipelines	0.00	$0.00	0.00
	Facilities	0.10	$0.00	0.09
	Subtotal	**0.12**	**$0.00**	
Electrical Power	Facilities	3,415.50	$156.56	4.58
	Subtotal	**3,415.50**	**$156.56**	
Communication	Facilities	13.00	$0.49	3.78
	Subtotal	**13.00**	**$0.49**	
	Total	**16,026.19**	**$473.33**	

Appendix A: County Listing for the Region

Fairfield,CT

Hartford,CT

Litchfield,CT

Middlesex,CT

New Haven,CT

New London,CT

Tolland,CT

Windham,CT

Appendix B: Regional Population and Building Value Data

State	County Name	Population	Building Value (millions of dollars)		
			Residential	Non-Residential	Total
Connecticut					
	Fairfield	916,829	92,896	38,506	131,402
	Hartford	894,014	84,874	35,200	120,074
	Litchfield	189,927	20,467	7,244	27,712
	Middlesex	165,676	18,596	6,503	25,099
	New Haven	862,477	79,934	34,971	114,905
	New London	274,055	28,202	8,383	36,586
	Tolland	152,691	15,136	3,292	18,428
	Windham	118,428	10,508	3,523	14,031
Total State		**3,574,097**	**350,613**	**137,622**	**488,237**
Total Region		**3,574,097**	**350,613**	**137,622**	**488,237**

Loss Estimates by Municipality

Loss estimates by hazard for State facilities and infrastructure within hazard extents.

County	Municipality	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
FAIRFIELD	**COUNTY**	**$115,555,008.83**	**$385,183,362.75**	**$0.00**	**$231,110,017.65**	**$24,705,085.15**	**$13,035,616.40**	**$97,944,175.95**	**$276,688,634.25**	**$147,632,546.67**	**$115,555,008.83**
FAIRFIELD	Bridgeport	$10,167,780.79	$33,892,602.64	$0.00	$20,335,561.58	$4,562,465.74	$2,607,123.28	$5,214,246.56	$5,214,246.56	$0.00	$10,167,780.79
FAIRFIELD	Brookfield	$782,136.98	$2,607,123.28	$0.00	$1,564,273.97	$0.00	$0.00	$1,042,849.31	$0.00	$1,303,561.64	$782,136.98
FAIRFIELD	Danbury	$51,750,802.37	$172,502,674.56	$0.00	$103,501,604.74	$3,717,742.74	$0.00	$53,021,599.18	$197,496,535.20	$126,123,779.61	$51,750,802.37
FAIRFIELD	New Canaan	$3,519,616.43	$11,732,054.76	$0.00	$7,039,232.86	$0.00	$0.00	$0.00	$0.00	$0.00	$3,519,616.43
FAIRFIELD	New Fairfield	$4,301,753.41	$14,339,178.04	$0.00	$8,603,506.82	$0.00	$0.00	$1,042,849.31	$0.00	$0.00	$4,301,753.41
FAIRFIELD	Newtown	$9,776,712.30	$32,589,041.00	$0.00	$19,553,424.60	$0.00	$0.00	$7,821,369.84	$0.00	$8,473,150.66	$9,776,712.30
FAIRFIELD	Norwalk	$10,472,131.45	$34,907,104.83	$0.00	$20,944,262.90	$1,824,986.30	$2,607,123.28	$11,355,718.65	$7,821,369.84	$0.00	$10,472,131.45
FAIRFIELD	Ridgefield	$2,737,479.44	$9,124,931.48	$0.00	$5,474,958.89	$0.00	$0.00	$0.00	$0.00	$9,124,931.48	$2,737,479.44
FAIRFIELD	Shelton	$2,346,410.95	$7,821,369.84	$0.00	$4,692,821.90	$5,474,958.89	$0.00	$3,128,547.94	$15,642,739.68	$0.00	$2,346,410.95
FAIRFIELD	Stamford	$8,750,266.92	$29,167,556.41	$0.00	$17,500,533.84	$912,493.15	$0.00	$9,581,323.94	$50,513,742.97	$1,303,561.64	$8,750,266.92
FAIRFIELD	Stratford	$4,692,821.90	$15,642,739.68	$0.00	$9,385,643.81	$912,493.15	$0.00	$2,607,123.28	$0.00	$0.00	$4,692,821.90
FAIRFIELD	Westport	$5,866,027.38	$19,553,424.60	$0.00	$11,732,054.76	$7,299,945.18	$7,821,369.84	$3,128,547.94	$0.00	$0.00	$5,866,027.38
FAIRFIELD	Wilton	$391,068.49	$1,303,561.64	$0.00	$782,136.98	$0.00	$0.00	$0.00	$0.00	$1,303,561.64	$391,068.49
HARTFORD	**COUNTY**	**$584,051,071.74**	**$1,362,785,834.05**	**$267,848,628.15**	**$1,168,102,143.47**	**$47,008,656.06**	**$0.00**	**$358,423,661.04**	**$9,551,822.13**	**$95,068,146.38**	**$584,051,071.74**
HARTFORD	Avon	$1,106,453.52	$2,581,724.88	$0.00	$2,212,907.04	$0.00	$0.00	$1,475,271.36	$0.00	$2,205,019.44	$1,106,453.52
HARTFORD	Berlin	$217,023.60	$506,388.40	$0.00	$434,047.20	$0.00	$0.00	$289,364.80	$0.00	$29,397.26	$217,023.60
HARTFORD	Bloomfield	$1,921,071.16	$4,482,499.37	$0.00	$3,842,142.32	$0.00	$0.00	$189,433.73	$0.00	$234,379.50	$1,921,071.16
HARTFORD	Bristol	$2,067,173.86	$4,823,405.66	$3,016,128.66	$4,134,347.71	$0.00	$0.00	$202,557.26	$0.00	$7,107,489.56	$2,067,173.86
HARTFORD	Burlington	$1,032,510.10	$2,409,190.23	$0.00	$2,065,020.20	$0.00	$0.00	$855,255.48	$0.00	$632,812.87	$1,032,510.10
HARTFORD	Canton	$43,736.36	$102,051.51	$0.00	$87,472.72	$0.00	$0.00	$0.00	$0.00	$0.00	$43,736.36
HARTFORD	East Granby	$33,061,711.78	$77,143,994.16	$66,123,423.57	$66,123,423.57	$2,737,479.44	$0.00	$44,082,282.38	$0.00	$2,010,089.83	$33,061,711.78
HARTFORD	East Hartford	$1,383,968.82	$3,229,260.57	$0.00	$2,767,937.63	$995,511.80	$0.00	$1,276,427.87	$0.00	$0.00	$1,383,968.82

County	Municipality	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
HARTFORD	East Windsor	$7,348,153.62	$17,145,691.79	$14,696,307.25	$14,696,307.25	$0.00	$0.00	$9,276,113.51	$0.00	$0.00	$7,348,153.62
HARTFORD	Enfield	$22,215,477.97	$51,836,115.27	$44,430,955.95	$44,430,955.95	$1,824,986.30	$0.00	$5,735,671.22	$0.00	$2,607,123.28	$22,215,477.97
HARTFORD	Farmington	$92,717,052.84	$216,339,789.97	$0.00	$185,434,105.69	$9,462,940.61	$0.00	$7,381,968.31	$0.00	$52,663,691.90	$92,717,052.84
HARTFORD	Glastonbury	$4,097,177.55	$9,560,080.95	$0.00	$8,194,355.10	$1,824,986.30	$0.00	$3,248,774.47	$0.00	$2,607,123.28	$4,097,177.55
HARTFORD	Granby	$29,949.93	$69,883.17	$0.00	$59,899.86	$0.00	$0.00	$39,933.24	$0.00	$99,833.10	$29,949.93
HARTFORD	Hartford	$225,942,754.65	$527,199,760.86	$0.00	$451,885,509.31	$3,115,235.35	$0.00	$94,278,417.92	$0.00	$0.00	$225,942,754.65
HARTFORD	Manchester	$20,384,936.90	$47,564,852.76	$0.00	$40,769,873.79	$0.00	$0.00	$26,939,982.63	$1,199,666.14	$170,433.49	$20,384,936.90
HARTFORD	New Britain	$34,700,004.95	$80,966,678.21	$0.00	$69,400,009.89	$912,493.15	$0.00	$28,434,980.01	$2,607,123.28	$5,214,246.56	$34,700,004.95
HARTFORD	Newington	$28,355,686.33	$66,163,268.09	$0.00	$56,711,372.65	$22,083,632.57	$0.00	$26,933,840.31	$0.00	$0.00	$28,355,686.33
HARTFORD	Rocky Hill	$18,975,028.70	$44,275,066.97	$0.00	$37,950,057.41	$0.00	$0.00	$4,360,686.05	$0.00	$290,295.08	$18,975,028.70
HARTFORD	Simsbury	$1,963,786.04	$4,582,167.42	$0.00	$3,927,572.07	$2,010,761.45	$0.00	$1,340,956.58	$5,745,032.71	$2,074,618.76	$1,963,786.04
HARTFORD	South Windsor	$72,643.02	$169,500.38	$145,286.04	$145,286.04	$0.00	$0.00	$0.00	$0.00	$0.00	$72,643.02
HARTFORD	Southington	$2,326,888.86	$5,429,407.33	$0.00	$4,653,777.71	$0.00	$0.00	$2,857,655.22	$0.00	$6,041,318.55	$2,326,888.86
HARTFORD	Suffield	$12,905,260.24	$30,112,273.88	$25,810,520.47	$25,810,520.47	$0.00	$0.00	$13,557,041.06	$0.00	$11,080,273.94	$12,905,260.24
HARTFORD	West Hartford	$4,613,088.41	$10,763,872.96	$0.00	$9,226,176.82	$215,642.79	$0.00	$6,092,725.53	$0.00	$0.00	$4,613,088.41
HARTFORD	Wethersfield	$8,305,279.53	$19,378,985.57	$0.00	$16,610,559.06	$0.00	$0.00	$3,974,350.07	$0.00	$0.00	$8,305,279.53
HARTFORD	Windsor	$4,282,774.44	$9,993,140.37	$5,663,049.10	$8,565,548.89	$0.00	$0.00	$5,710,365.93	$0.00	$0.00	$4,282,774.44
HARTFORD	Windsor Locks	$53,981,478.56	$125,956,783.30	$107,962,957.12	$107,962,957.12	$1,824,986.30	$0.00	$69,889,606.12	$0.00	$0.00	$53,981,478.56
LITCHFIELD	**COUNTY**	**$38,735,484.29**	**$90,382,796.69**	**$0.00**	**$77,470,968.59**	**$16,862,429.66**	**$0.00**	**$20,871,662.97**	**$35,623,646.26**	**$48,475,576.26**	**$38,735,484.29**
LITCHFIELD	Barkhamsted	$1,564,273.97	$3,649,972.59	$0.00	$3,128,547.94	$0.00	$0.00	$2,085,698.62	$7,821,369.84	$0.00	$1,564,273.97
LITCHFIELD	Cornwall	$10,167,780.79	$23,724,821.85	$0.00	$20,335,561.58	$2,737,479.44	$0.00	$8,342,794.50	$0.00	$0.00	$10,167,780.79
LITCHFIELD	Kent	$8,994,575.32	$20,987,342.40	$0.00	$17,989,150.63	$5,474,958.89	$0.00	$6,257,095.87	$0.00	$0.00	$8,994,575.32
LITCHFIELD	Litchfield	$3,519,616.43	$8,212,438.33	$0.00	$7,039,232.86	$0.00	$0.00	$1,564,273.97	$0.00	$2,607,123.28	$3,519,616.43
LITCHFIELD	North Canaan	$782,136.98	$1,824,986.30	$0.00	$1,564,273.97	$0.00	$0.00	$1,042,849.31	$0.00	$2,607,123.28	$782,136.98
LITCHFIELD	Torrington	$7,596,466.75	$17,725,089.09	$0.00	$15,192,933.51	$0.00	$0.00	$1,057,526.04	$5,314,579.03	$24,847,891.98	$7,596,466.75
LITCHFIELD	Warren	$391,068.49	$912,493.15	$0.00	$782,136.98	$0.00	$0.00	$0.00	$0.00	$0.00	$391,068.49
LITCHFIELD	Washington	$1,173,205.48	$2,737,479.44	$0.00	$2,346,410.95	$0.00	$0.00	$0.00	$0.00	$3,910,684.92	$1,173,205.48

County	Municipality	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
LITCHFIELD	Winchester	$4,546,360.08	$10,608,173.53	$0.00	$9,092,720.17	$8,649,991.33	$0.00	$521,424.66	$22,487,697.39	$14,502,752.80	$4,546,360.08
MIDDLESEX	**COUNTY**	**$117,541,187.69**	**$391,803,958.97**	**$0.00**	**$235,082,375.38**	**$11,810,501.73**	**$8,172,882.73**	**$47,396,465.39**	**$4,410,157.33**	**$113,852,280.71**	**$117,541,187.69**
MIDDLESEX	Chester	$52,726.93	$175,756.45	$0.00	$105,453.87	$123,029.51	$351,512.89	$0.00	$0.00	$87,878.22	$52,726.93
MIDDLESEX	Clinton	$43,677.18	$145,590.59	$0.00	$87,354.35	$0.00	$0.00	$58,236.24	$0.00	$145,590.59	$43,677.18
MIDDLESEX	Cromwell	$71,125.63	$237,085.43	$0.00	$142,251.26	$0.00	$0.00	$0.00	$0.00	$0.00	$71,125.63
MIDDLESEX	Deep River	$44,503.81	$148,346.04	$0.00	$89,007.62	$103,842.23	$0.00	$0.00	$0.00	$0.00	$44,503.81
MIDDLESEX	Durham	$100,302.86	$334,342.87	$0.00	$200,605.72	$0.00	$0.00	$133,737.15	$0.00	$0.00	$100,302.86
MIDDLESEX	East Haddam	$26,258,402.56	$87,528,008.52	$0.00	$52,516,805.11	$3,649,972.59	$7,821,369.84	$28,678,356.08	$0.00	$37,151,506.74	$26,258,402.56
MIDDLESEX	East Hampton	$2,446,378.36	$8,154,594.52	$0.00	$4,892,756.71	$912,493.15	$0.00	$2,607,123.28	$0.00	$0.00	$2,446,378.36
MIDDLESEX	Essex	$300,458.70	$1,001,529.01	$0.00	$600,917.40	$0.00	$0.00	$400,611.60	$0.00	$0.00	$300,458.70
MIDDLESEX	Haddam	$5,884,111.96	$19,613,706.53	$0.00	$11,768,223.92	$5,474,958.89	$0.00	$3,654,034.85	$293,998.86	$8,586,197.95	$5,884,111.96
MIDDLESEX	Killingworth	$4,937,893.91	$16,459,646.36	$0.00	$9,875,787.82	$1,140,144.29	$0.00	$4,368,073.55	$0.00	$0.00	$4,937,893.91
MIDDLESEX	Middlefield	$391,068.49	$1,303,561.64	$0.00	$782,136.98	$0.00	$0.00	$5,631,543.79	$0.00	$0.00	$391,068.49
MIDDLESEX	Middletown	$70,759,895.88	$235,866,319.59	$0.00	$141,519,791.75	$0.00	$0.00	$0.00	$4,116,158.47	$54,838,980.56	$70,759,895.88
MIDDLESEX	Old Saybrook	$2,183,932.60	$7,279,775.35	$0.00	$4,367,865.21	$0.00	$0.00	$549,613.66	$0.00	$6,442,884.35	$2,183,932.60
MIDDLESEX	Portland	$2,664,763.84	$8,882,546.12	$0.00	$5,329,527.67	$0.00	$0.00	$1,083,100.29	$0.00	$4,242,088.81	$2,664,763.84
MIDDLESEX	Westbrook	$1,401,944.99	$4,673,149.97	$0.00	$2,803,889.98	$406,061.07	$0.00	$232,034.90	$0.00	$2,357,153.49	$1,401,944.99
NEW HAVEN	**COUNTY**	**$260,862,097.39**	**$869,540,324.63**	**$70,543,323.00**	**$521,724,194.78**	**$105,134,350.80**	**$99,070,684.64**	**$215,807,649.47**	**$101,907,148.61**	**$251,030,677.32**	**$260,862,097.39**
NEW HAVEN	Ansonia	$2,352,710.57	$7,842,368.57	$0.00	$4,705,421.14	$0.00	$0.00	$0.00	$0.00	$7,842,368.57	$2,352,710.57
NEW HAVEN	Bethany	$1,564,273.97	$5,214,246.56	$0.00	$3,128,547.94	$0.00	$0.00	$0.00	$0.00	$2,607,123.28	$1,564,273.97
NEW HAVEN	Branford	$2,346,410.95	$7,821,369.84	$0.00	$4,692,821.90	$0.00	$0.00	$0.00	$0.00	$3,910,684.92	$2,346,410.95
NEW HAVEN	Cheshire	$28,869,342.94	$96,231,143.13	$0.00	$57,738,685.88	$0.00	$0.00	$16,253,045.10	$0.00	$8,473,150.66	$28,869,342.94
NEW HAVEN	Derby	$2,737,479.44	$9,124,931.48	$0.00	$5,474,958.89	$0.00	$0.00	$1,564,273.97	$0.00	$0.00	$2,737,479.44
NEW HAVEN	East Haven	$6,648,164.36	$22,160,547.88	$0.00	$13,296,328.73	$6,387,452.04	$0.00	$8,342,794.50	$0.00	$0.00	$6,648,164.36
NEW HAVEN	Guilford	$1,829,226.65	$6,097,422.17	$0.00	$3,658,453.30	$0.00	$0.00	$2,037,463.00	$0.00	$3,550,593.42	$1,829,226.65
NEW HAVEN	Hamden	$20,167,565.22	$67,225,217.41	$0.00	$40,335,130.45	$1,824,986.30	$0.00	$18,897,342.80	$0.00	$37,116,628.43	$20,167,565.22
NEW HAVEN	Madison	$17,207,013.65	$57,356,712.16	$0.00	$34,414,027.30	$28,287,287.59	$39,106,849.20	$19,292,712.27	$0.00	$1,303,561.64	$17,207,013.65
NEW HAVEN	Meriden	$18,685,864.75	$62,286,215.82	$0.00	$37,371,729.49	$0.00	$0.00	$11,336,489.50	$682,257.95	$23,322,260.02	$18,685,864.75

County	Municipality	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
NEW HAVEN	Milford	$3,128,547.94	$10,428,493.12	$0.00	$6,257,095.87	$4,562,465.74	$13,035,616.40	$0.00	$0.00	$0.00	$3,128,547.94
NEW HAVEN	New Haven	$111,450,328.62	$371,501,095.40	$14,078,465.71	$222,900,657.24	$33,762,246.48	$46,928,219.04	$115,750,684.83	$26,273,825.61	$124,182,985.52	$111,450,328.62
NEW HAVEN	North Haven	$2,737,479.44	$9,124,931.48	$0.00	$5,474,958.89	$0.00	$0.00	$2,607,123.28	$0.00	$5,593,087.53	$2,737,479.44
NEW HAVEN	Oxford	$7,821,369.84	$26,071,232.80	$0.00	$15,642,739.68	$912,493.15	$0.00	$2,607,123.28	$0.00	$11,732,054.76	$7,821,369.84
NEW HAVEN	Seymour	$391,068.49	$1,303,561.64	$0.00	$782,136.98	$912,493.15	$0.00	$0.00	$2,607,123.28	$0.00	$391,068.49
NEW HAVEN	Southbury	$14,643,357.94	$48,811,193.12	$25,376,030.95	$29,286,715.87	$2,252,053.60	$0.00	$10,162,062.08	$0.00	$12,271,247.09	$14,643,357.94
NEW HAVEN	Wallingford	$782,136.98	$2,607,123.28	$0.00	$1,564,273.97	$0.00	$0.00	$521,424.66	$0.00	$1,303,561.64	$782,136.98
NEW HAVEN	Waterbury	$13,589,070.71	$45,296,902.36	$27,178,141.42	$27,178,141.42	$24,407,886.47	$0.00	$5,913,685.56	$72,343,941.77	$4,562,465.74	$13,589,070.71
NEW HAVEN	West Haven	$782,136.98	$2,607,123.28	$0.00	$1,564,273.97	$1,824,986.30	$0.00	$521,424.66	$0.00	$0.00	$782,136.98
NEW HAVEN	Wolcott	$1,955,342.46	$6,517,808.20	$3,910,684.92	$3,910,684.92	$0.00	$0.00	$0.00	$0.00	$3,258,904.10	$1,955,342.46
NEW HAVEN	Woodbridge	$1,173,205.48	$3,910,684.92	$0.00	$2,346,410.95	$0.00	$0.00	$0.00	$0.00	$0.00	$1,173,205.48
NEW LONDON	**COUNTY**	**$173,339,494.44**	**$577,798,314.78**	**$0.00**	**$346,678,988.87**	**$89,459,265.37**	**$31,285,479.36**	**$105,909,206.39**	**$0.00**	**$165,446,864.80**	**$173,339,494.44**
NEW LONDON	Bozrah	$782,136.98	$2,607,123.28	$0.00	$1,564,273.97	$0.00	$0.00	$0.00	$0.00	$0.00	$782,136.98
NEW LONDON	Colchester	$1,633,608.48	$5,445,361.60	$0.00	$3,267,216.96	$0.00	$0.00	$165,173.05	$0.00	$1,920,901.13	$1,633,608.48
NEW LONDON	East Lyme	$58,161,548.99	$193,871,829.96	$0.00	$116,323,097.98	$20,389,249.73	$2,607,123.28	$56,170,321.09	$0.00	$14,990,958.86	$58,161,548.99
NEW LONDON	Franklin	$4,424,212.77	$14,747,375.90	$0.00	$8,848,425.54	$0.00	$0.00	$5,293,826.21	$0.00	$651,780.82	$4,424,212.77
NEW LONDON	Griswold	$3,957,101.25	$13,190,337.48	$0.00	$7,914,202.49	$9,124,931.48	$0.00	$5,276,134.99	$0.00	$154,721.09	$3,957,101.25
NEW LONDON	Groton	$22,290,904.04	$74,303,013.48	$0.00	$44,581,808.09	$35,587,232.77	$15,642,739.68	$8,864,219.15	$0.00	$15,642,739.68	$22,290,904.04
NEW LONDON	Lisbon	$662,366.87	$2,207,889.55	$0.00	$1,324,733.73	$1,545,522.69	$0.00	$883,155.82	$0.00	$1,103,944.78	$662,366.87
NEW LONDON	Montville	$5,083,890.40	$16,946,301.32	$0.00	$10,167,780.79	$0.00	$0.00	$4,692,821.90	$0.00	$9,124,931.48	$5,083,890.40
NEW LONDON	New London	$2,737,479.44	$9,124,931.48	$0.00	$5,474,958.89	$5,474,958.89	$5,214,246.56	$0.00	$0.00	$2,607,123.28	$2,737,479.44
NEW LONDON	North Stonington	$707,467.04	$2,358,223.47	$0.00	$1,414,934.08	$0.00	$0.00	$0.00	$0.00	$0.00	$707,467.04
NEW LONDON	Norwich	$43,184,059.43	$143,946,864.76	$0.00	$86,368,118.86	$0.00	$0.00	$21,851,675.86	$0.00	$73,125,891.41	$43,184,059.43
NEW LONDON	Preston	$1,173,205.48	$3,910,684.92	$0.00	$2,346,410.95	$0.00	$0.00	$1,564,273.97	$0.00	$651,780.82	$1,173,205.48

County	Municipality	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
NEW LONDON	Voluntown	$78,566.28	$261,887.58	$0.00	$157,132.55	$0.00	$0.00	$104,755.03	$0.00	$130,943.79	$78,566.28
NEW LONDON	Waterford	$28,462,946.99	$94,876,489.98	$0.00	$56,925,893.99	$17,337,369.81	$7,821,369.84	$1,042,849.31	$0.00	$45,341,147.66	$28,462,946.99
TOLLAND	**COUNTY**	**$420,770,924.66**	**$981,798,824.21**	**$39,392,733.46**	**$841,541,849.32**	**$8,014,200.63**	**$0.00**	**$55,078,433.20**	**$0.00**	**$497,436,808.13**	**$420,770,924.66**
TOLLAND	Andover	$44,169.71	$103,062.66	$0.00	$88,339.43	$0.00	$0.00	$58,892.95	$0.00	$73,616.19	$44,169.71
TOLLAND	Bolton	$510,697.65	$1,191,627.86	$0.00	$1,021,395.31	$0.00	$0.00	$680,930.21	$0.00	$851,162.76	$510,697.65
TOLLAND	Columbia	$710,913.78	$1,658,798.82	$0.00	$1,421,827.56	$0.00	$0.00	$57,679.83	$0.00	$1,184,856.30	$710,913.78
TOLLAND	Coventry	$2,737,479.44	$6,387,452.04	$0.00	$5,474,958.89	$0.00	$0.00	$0.00	$0.00	$0.00	$2,737,479.44
TOLLAND	Ellington	$47,448.57	$110,713.33	$94,897.14	$94,897.14	$0.00	$0.00	$0.00	$0.00	$79,080.95	$47,448.57
TOLLAND	Hebron	$3,000,299.62	$7,000,699.12	$0.00	$6,000,599.25	$0.00	$0.00	$279,121.96	$0.00	$0.00	$3,000,299.62
TOLLAND	Mansfield	$384,894,092.38	$898,086,215.56	$0.00	$769,788,184.76	$4,562,465.74	$0.00	$45,733,864.90	$0.00	$448,167,278.53	$384,894,092.38
TOLLAND	Somers	$14,189,931.50	$33,109,840.16	$28,379,863.00	$28,379,863.00	$0.00	$0.00	$699,109.67	$0.00	$3,258,904.10	$14,189,931.50
TOLLAND	Stafford	$1,900,699.22	$4,434,964.85	$2,767,576.45	$3,801,398.44	$104,673.80	$0.00	$689,214.66	$0.00	$209,737.51	$1,900,699.22
TOLLAND	Tolland	$2,048,474.74	$4,779,774.39	$0.00	$4,096,949.48	$0.00	$0.00	$1,215,937.28	$0.00	$3,486,078.63	$2,048,474.74
TOLLAND	Union	$359,726.33	$839,361.43	$0.00	$719,452.65	$0.00	$0.00	$0.00	$0.00	$0.00	$359,726.33
TOLLAND	Vernon	$7,124,371.97	$16,623,534.59	$8,150,396.87	$14,248,743.93	$912,493.15	$0.00	$2,091,177.59	$0.00	$36,377,574.91	$7,124,371.97
TOLLAND	Willington	$3,202,619.74	$7,472,779.40	$0.00	$6,405,239.49	$2,434,567.95	$0.00	$3,572,504.14	$0.00	$3,748,518.27	$3,202,619.74
WINDHAM	**COUNTY**	**$91,185,718.17**	**$212,766,675.74**	**$0.00**	**$182,371,436.35**	**$12,774,904.07**	**$0.00**	**$35,717,434.94**	**$0.00**	**$186,843,580.04**	**$91,185,718.17**
WINDHAM	Ashford	$1,955,342.46	$4,562,465.74	$0.00	$3,910,684.92	$0.00	$0.00	$1,042,849.31	$0.00	$0.00	$1,955,342.46
WINDHAM	Brooklyn	$7,775,507.20	$18,142,850.13	$0.00	$15,551,014.40	$0.00	$0.00	$1,042,849.31	$0.00	$23,556,024.74	$7,775,507.20
WINDHAM	Canterbury	$692,040.89	$1,614,762.08	$0.00	$1,384,081.78	$0.00	$0.00	$0.00	$0.00	$1,153,401.48	$692,040.89
WINDHAM	Eastford	$3,434,485.98	$8,013,800.63	$0.00	$6,868,971.97	$0.00	$0.00	$0.00	$0.00	$1,884,605.92	$3,434,485.98
WINDHAM	Killingly	$17,827,293.57	$41,597,018.33	$0.00	$35,654,587.14	$912,493.15	$0.00	$19,076,902.85	$0.00	$36,881,744.97	$17,827,293.57
WINDHAM	Plainfield	$11,340,986.27	$26,462,301.29	$0.00	$22,681,972.54	$10,949,917.78	$0.00	$6,257,095.87	$0.00	$3,910,684.92	$11,340,986.27
WINDHAM	Putnam	$3,910,684.92	$9,124,931.48	$0.00	$7,821,369.84	$912,493.15	$0.00	$2,607,123.28	$0.00	$9,124,931.48	$3,910,684.92
WINDHAM	Thompson	$2,364,698.31	$5,517,629.38	$0.00	$4,729,396.61	$0.00	$0.00	$1,683,656.85	$0.00	$3,484,833.00	$2,364,698.31
WINDHAM	Windham	$41,754,051.66	$97,426,120.54	$0.00	$83,508,103.32	$0.00	$0.00	$4,006,957.46	$0.00	$106,629,641.99	$41,754,051.66
WINDHAM	Woodstock	$130,626.92	$304,796.15	$0.00	$261,253.84	$0.00	$0.00	$0.00	$0.00	$217,711.53	$130,626.92

Loss Estimates by State Facility

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
1312-2	HARTFORD	Rocky Hill	Commissary	Veteran's Home & Hospital	Building No. 2	$4,393,419	$517,162	$736,587	$1,718,703	$0	$1,473,174	$0	$0	$0	$0	$0	$73,658,712
1312-7	HARTFORD	Rocky Hill	Veteran's Services	Veteran's Home & Hospital	Building No. 7	$1,445,772	$26,463	$220,835	$515,282	$0	$441,671	$0	$0	$0	$0	$0	$22,083,531
1312-25	HARTFORD	Rocky Hill	Recovery Center	Veteran's Home & Hospital	Building No. 50	$5,776,051	$13,557	$868,441	$2,026,363	$0	$1,736,882	$0	$0	$0	$0	$0	$86,844,117
1312-37	HARTFORD	Rocky Hill	Oxygen Shed	Veteran's Home & Hospital	Building No. 59	$26,909	$285,646	$46,883	$109,394	$0	$93,767	$0	$0	$0	$0	$0	$4,688,334
1312-5	HARTFORD	Rocky Hill	Healthcare Facility	Veteran's Home & Hospital	Building No. 5	$18,474,398	$2,113,246	$3,088,147	$7,205,676	$0	$6,176,293	$0	$0	$0	$0	$0	$308,814,666
1312-24	HARTFORD	Rocky Hill	Garage	Veteran's Home & Hospital	Building No. 49	$67,807	$12,403	$12,032	$28,074	$0	$24,063	$0	$0	$0	$0	$0	$1,203,157
1312-22	HARTFORD	Rocky Hill	Garage	Veteran's Home & Hospital	Building No. 44	$13,198	$285,646	$44,827	$104,595	$0	$89,653	$0	$0	$0	$0	$0	$4,482,655
1312-26	HARTFORD	Rocky Hill	Apartments	Veteran's Home & Hospital	Building No. 51	$2,524,991	$285,646	$421,596	$983,723	$0	$843,191	$0	$0	$0	$0	$0	$42,159,553
1312-34	HARTFORD	Rocky Hill	Apartments	Veteran's Home & Hospital	Building No. 60	$1,347,727	$285,646	$245,006	$571,681	$0	$490,012	$0	$0	$0	$0	$0	$24,500,593
1312-32	HARTFORD	Rocky Hill	Residence	Veteran's Home & Hospital	Building No. 57	$116,418	$285,646	$60,310	$140,723	$0	$120,619	$0	$0	$0	$0	$0	$6,030,966
1312-31	HARTFORD	Rocky Hill	Residence	Veteran's Home & Hospital	Building No. 56	$110,837	$285,646	$59,473	$138,769	$0	$118,945	$0	$0	$0	$0	$0	$5,947,255
1312-30	HARTFORD	Rocky Hill	Residence	Veteran's Home & Hospital	Building No. 55	$110,837	$285,646	$59,473	$138,769	$0	$118,945	$0	$0	$0	$0	$0	$5,947,255
1312-29	HARTFORD	Rocky Hill	Residence	Veteran's Home & Hospital	Building No. 54	$110,837	$285,646	$59,473	$138,769	$0	$118,945	$0	$0	$0	$0	$0	$5,947,255
1312-19	HARTFORD	Rocky Hill	Group Home 1	Veteran's Home & Hospital	Building No. 19	$244,087	$285,646	$79,460	$185,406	$0	$158,920	$0	$0	$0	$0	$0	$7,945,991
1312-28	HARTFORD	Rocky Hill	Residence	Veteran's Home & Hospital	Building No. 53	$110,837	$285,646	$59,473	$138,769	$0	$118,945	$0	$0	$0	$0	$0	$5,947,255
1312-7108	HARTFORD	Rocky Hill	Electrical Building	Veteran's Home & Hospital	State Police	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
1312-3	HARTFORD	Rocky Hill	West Domicile	Veteran's Home & Hospital	Building No. 3	$3,218,533	$36,756	$488,293	$1,139,351	$0	$976,587	$0	$0	$0	$0	$0	$48,829,328
7804-15	NEW HAVEN	New Haven	Brownell Hall	Southern Connecticut State University	Building No. 21, Residence	$7,884,535	$139,428	$1,203,594	$4,011,981	$0	$2,407,189	$0	$0	$0	$0	$0	$120,359,440

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
7805-25	WINDHAM	Windham	Facilities Management, Planning & Maintenance	Eastern Connecticut State University	Building No. 45	$3,028,628	$366,389	$509,253	$1,188,256	$0	$1,018,505	$0	$0	$0	$0	$0	$50,925,252
7805-6	WINDHAM	Windham	Winthrop Hall	Eastern Connecticut State University	Building No. 13	$2,724,059	$374,642	$464,805	$1,084,545	$0	$929,610	$0	$0	$0	$0	$0	$46,480,512
7805-5379	WINDHAM	Windham		Eastern Connecticut State University	Garage	$244,479	$19,304	$39,567	$92,324	$0	$79,135	$0	$0	$0	$0	$0	$3,956,738
7805-5379	WINDHAM	Windham	Women's Center	Eastern Connecticut State University	Building No. 9	$244,479	$19,304	$39,567	$92,324	$0	$79,135	$0	$0	$0	$0	$0	$3,956,738
7805-5378	WINDHAM	Windham	Johnson Unity Center	Eastern Connecticut State University	Building No. 10	$202,374	$10,122	$31,874	$74,374	$0	$63,749	$0	$0	$0	$0	$0	$3,187,438
7805-5370	WINDHAM	Windham	192 High Street/Counseling Services	Eastern Connecticut State University	Building No. 11	$244,495	$54,520	$44,852	$104,655	$0	$89,705	$0	$0	$0	$0	$0	$4,485,231
7805-5380	WINDHAM	Windham	Greenhouse	Eastern Connecticut State University	Building No. 6	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7805-487	WINDHAM	Windham	Softball Field Facility	Eastern Connecticut State University	Physical Education Building	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
(none)	WINDHAM	Windham		Eastern Connecticut State University	Shed	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
(none)	WINDHAM	Windham		Eastern Connecticut State University	Shed	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7805-20	WINDHAM	Windham	Sports Center	Eastern Connecticut State University	Building No. 33	$8,059,652	$157,846	$1,232,625	$2,876,124	$0	$2,465,249	$0	$0	$0	$0	$0	$123,262,466
7805-483	WINDHAM	Windham	J. Eugene Smith Library	Eastern Connecticut State University	Building No. 23	$19,562,385	$1,462,761	$3,153,772	$7,358,801	$0	$6,307,544	$0	$0	$0	$0	$0	$315,377,192
7805-5	WINDHAM	Windham	Heating Plant, South	Eastern Connecticut State University	Building No. 4	$3,118,056	$285,646	$510,555	$1,191,296	$0	$1,021,111	$0	$0	$0	$0	$0	$51,055,531
7805-7814	WINDHAM	Windham	Gelsi-Young Hall	Eastern Connecticut	Building No. 31	$2,321,477	$522,370	$426,577	$995,346	$0	$853,154	$0	$0	$0	$0	$0	$42,657,707

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
				State University													
(none)	WINDHAM	Windham		Eastern Connecticut State University	CL&P Building	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7805-8	WINDHAM	Windham	Wood Support Services Center	Eastern Connecticut State University	Building No. 30	$184,080	$285,646	$70,459	$164,404	$0	$140,918	$0	$0	$0	$0	$0	$7,045,892
(none)	WINDHAM	Windham		Eastern Connecticut State University	Temporary Bookstore	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7805-7817	WINDHAM	Windham	Parking Garage	Eastern Connecticut State University	Building No. 41	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
(none)	FAIRFIELD	Danbury		Henry Abbott Technical High School		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7802-7113	HARTFORD	New Britain	ATM Kiosk	Central Connecticut State University	Building No. 67, ATM	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7802-20	HARTFORD	New Britain	Mildred Barrows Hall	Central Connecticut State University	Building No. 19, Residence	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7802-12	HARTFORD	New Britain	Emma Hart Willard Hall	Central Connecticut State University	Building No. 11, Education	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7802-10	HARTFORD	New Britain	Seth North Hall	Central Connecticut State University	Building No. 10, Residence	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7802-8	HARTFORD	New Britain	Catherine Beecher Hall	Central Connecticut State University	Building No. 8, Residence	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7701-12	MIDDLESEX	Middletown	Chapman Hall	Middlesex Community College		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7805-17	WINDHAM	Windham	Low Rise C	Eastern Connecticut State University	Building No. 17	$1,740,160	$19,352	$263,927	$615,829	$0	$527,854	$0	$0	$0	$0	$0	$26,392,686
1326-483	HARTFORD	Hartford		State of Connecticut Office Building	(multiple - see comments)	$4,558,267	$2,737,935	$1,094,430	$2,553,671	$0	$2,188,861	$0	$0	$0	$0	$0	$109,443,034
1326-36	HARTFORD	Hartford		Capitol Annex		$10,435,295	$43,395	$1,571,804	$3,667,542	$0	$3,143,607	$0	$0	$0	$0	$0	$157,180,357
(none)	HARTFORD	Hartford		Troop H Garage	Garage and Service Center	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
1001-2	HARTFORD	Hartford		State Capitol Building		$424,920,137	$3,405,443	$64,248,837	$149,913,953	$0	$128,497,674	$0	$0	$0	$0	$0	$6,424,883,698
	HARTFORD	Hartford		Brainard Airport		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
(none)	HARTFORD	Hartford		Troop H Barracks	Barracks	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
1326-32	HARTFORD	Hartford		Department of Environmental Protection		$44,436,885	$2,993,193	$7,114,512	$16,600,527	$0	$14,229,023	$0	$0	$0	$0	$0	$711,451,166
1326-25	HARTFORD	Hartford		Old Treasury Building		$5,291,503	$285,646	$836,572	$1,952,002	$0	$1,673,145	$0	$0	$0	$0	$0	$83,657,237
5000-199	HARTFORD	Hartford	Maintenance Garage	Brainard Airport		$174,329	$72,476	$37,021	$86,382	$0	$74,042	$0	$0	$0	$0	$0	$3,702,075
(none)	HARTFORD	Hartford	Service Garage	A.I. Prince Technical High School	Maintenance/Repair Shop	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Hartford		Brainard Airport		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Hartford		Brainard Airport		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Hartford		Brainard Airport		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7701-7107	HARTFORD	Hartford	Old G. Fox Building	Capital Community College	Education	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
1326-8525	HARTFORD	Hartford		Governor's Residence	Annex/Guest House	$143,643	$285,646	$64,393	$150,251	$0	$128,787	$0	$0	$0	$0	$0	$6,439,342
4400-479	HARTFORD	Hartford	51 Coventry Street	Blue Hills Hospital		$9,746,462	$224,419	$1,495,632	$3,489,808	$0	$2,991,264	$0	$0	$0	$0	$0	$149,563,213
(none)	HARTFORD	Hartford		Governor's Residence	Annex/Guest House	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
(none)	HARTFORD	Hartford		Governor's Residence		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
5000-7222	HARTFORD	Hartford	Electronic Communications Facility			$285,157	$1,301,000	$237,924	$555,155	$0	$475,847	$0	$0	$0	$0	$0	$23,792,361
(none)	HARTFORD	Hartford				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
(none)	HARTFORD	Hartford				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
(none)	HARTFORD	Hartford				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
(none)	HARTFORD	Hartford	none	Blue Hills Hospital		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
1326-8523	HARTFORD	Hartford		Governor's Residence	Annex/Guest House	$86,965	$285,646	$55,892	$130,414	$0	$111,783	$0	$0	$0	$0	$0	$5,589,170
(none)	HARTFORD	Hartford		Governor's Residence	Annex/Guest House and Garage	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
4400-336	HARTFORD	Hartford	Capital Region Mental Health Center	Blue Hills Hospital		$5,607,840	$336,008	$891,577	$2,080,347	$0	$1,783,154	$0	$0	$0	$0	$0	$89,157,719
5000-11	HARTFORD	Hartford	Maintenance Garage			$4,387,162	$504,069	$733,685	$1,711,931	$0	$1,467,369	$0	$0	$0	$0	$0	$73,368,469
1326-8532	HARTFORD	Hartford		CT Community Colleges System Office	Office	$14,380,795	$285,646	$2,199,966	$5,133,254	$0	$4,399,932	$0	$0	$0	$0	$0	$219,996,617

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
7301-365	HARTFORD	Hartford	School of Law - Hosmer Hall	University of Connecticut		$3,025,818	$417,548	$516,505	$1,205,178	$0	$1,033,010	$0	$0	$0	$0	$0	$51,650,481
7301-501	HARTFORD	Hartford	School of Law - Library	University of Connecticut	Library	$29,019,805	$1,643,114	$4,599,438	$10,732,022	$0	$9,198,876	$0	$0	$0	$0	$0	$459,943,783
	HARTFORD	Hartford				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
5000-240	HARTFORD	Hartford	Bus Facility			$37,979,099	$11,042,621	$7,353,258	$17,157,602	$0	$14,706,516	$0	$0	$0	$0	$0	$735,325,798
(none)	HARTFORD	Hartford	Cement Deck	CT Community Colleges System Office		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
1326-31	HARTFORD	Hartford		Governor's Residence	Residence	$1,872,812	$285,646	$323,769	$755,460	$0	$647,538	$0	$0	$0	$0	$0	$32,376,875
(none)	HARTFORD	Hartford		Governor's Residence	Deck	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
(none)	HARTFORD	Hartford		Governor's Residence		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
(none)	HARTFORD	Hartford		Governor's Residence		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
1326-8524	HARTFORD	Hartford		Governor's Residence	Shed	$16,513	$285,646	$45,324	$105,756	$0	$90,648	$0	$0	$0	$0	$0	$4,532,391
(none)	HARTFORD	Hartford		Governor's Residence		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
(none)	HARTFORD	Hartford		University of Connecticut		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Hartford				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Hartford		Science Center		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Hartford		Science Center		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
4124-1042	LITCHFIELD	Torrington	Oak/Maple Building 2	Northwest Regional Center		$1,040,000	$17,393	$158,609	$370,088	$0	$317,218	$0	$0	$0	$0	$0	$15,860,895
7803-481	FAIRFIELD	Danbury	University Hall	Western Connecticut State University - Midtown Campus	Administration	$2,671,793	$220,267	$433,809	$1,446,030	$0	$867,618	$0	$0	$0	$0	$0	$43,380,892
(none)	FAIRFIELD	Danbury		Western Connecticut State University - Midtown Campus	Stairwell	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7803-7644	FAIRFIELD	Danbury	Science Building	Western Connecticut State University - Midtown Campus	Academics	$35,174,419	$4,177,573	$5,902,799	$19,675,996	$0	$11,805,598	$0	$0	$0	$0	$0	$590,279,888
7803-7640	FAIRFIELD	Danbury	Roberts Avenue Elementary School	Western Connecticut State	Magnet School	$2,426,500	$285,646	$406,822	$1,356,073	$0	$813,644	$0	$0	$0	$0	$0	$40,682,189

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
				University - Midtown Campus													
7803-7444	FAIRFIELD	Danbury	Higgins Hall	Western Connecticut State University - Midtown Campus	Academics	$2,720,871	$330,061	$457,640	$1,525,466	$0	$915,280	$0	$0	$0	$0	$0	$45,763,983
7803-7646	FAIRFIELD	Danbury	Parking Garage	Western Connecticut State University - Midtown Campus	Parking Garage	$15,070,907	$30,000	$2,265,136	$7,550,454	$0	$4,530,272	$0	$0	$0	$0	$0	$226,513,612
(none)	FAIRFIELD	Danbury		Western Connecticut State University - Midtown Campus	Storage Shed (?)	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7803-6444	FAIRFIELD	Danbury	Fairfield Hall Addition	Western Connecticut State University - Midtown Campus	Student Life	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7803-3444	FAIRFIELD	Danbury	Boiler House	Western Connecticut State University - Midtown Campus	Facilities/Police Dept	$1,146,757	$387,027	$230,068	$766,892	$0	$460,135	$0	$0	$0	$0	$0	$23,006,772
7803-12444	FAIRFIELD	Danbury	Newbury Hall	Western Connecticut State University - Midtown Campus	Student Life	$5,413,167	$88,052	$825,183	$2,750,609	$0	$1,650,366	$0	$0	$0	$0	$0	$82,518,284
5000-79	HARTFORD	Avon	Maintenance Garage	Department of Transportation		$909,058	$191,019	$165,012	$385,027	$0	$330,023	$0	$0	$0	$0	$0	$16,501,157
7301-364	HARTFORD	West Hartford	Landscape Garage - Gr Htfd	UCONN LAW SCHOOL		$425,333	$190,789	$92,418	$215,643	$0	$184,837	$0	$0	$0	$0	$0	$9,241,834
7302-4	HARTFORD	Farmington	Clinic Building	UCONN HEALTH CENTER		$73,948,241	$29,500,228	$15,517,270	$36,206,964	$0	$31,034,541	$0	$0	$0	$0	$0	$1,551,727,036
7302-5	HARTFORD	Farmington	Administrative Services Building	UCONN HEALTH CENTER		$14,405,209	$25,855,920	$6,039,169	$14,091,395	$0	$12,078,339	$0	$0	$0	$0	$0	$603,916,938
7302-7815	HARTFORD	Farmington	Farmington Surgery Center	UCONN HEALTH CENTER		$40,353,385	$3,082,002	$6,515,308	$15,202,385	$0	$13,030,616	$0	$0	$0	$0	$0	$651,530,804

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
7302-28	HARTFORD	Farmington	Building 18	UCONN HEALTH CENTER		$1,027,497	$137,450	$174,742	$407,731	$0	$349,484	$0	$0	$0	$0	$0	$17,474,197
7302-17	HARTFORD	Farmington	Building 5	UCONN HEALTH CENTER		$1,229,507	$909,797	$320,896	$748,756	$0	$641,791	$0	$0	$0	$0	$0	$32,089,554
7302-9	HARTFORD	Farmington	Dowling South	UCONN HEALTH CENTER		$9,776,680	$3,311,980	$1,963,299	$4,581,031	$0	$3,926,598	$0	$0	$0	$0	$0	$196,329,902
5000-723	HARTFORD	Farmington	Salth Shed	Department of Transportation		$294,983	$285,646	$87,094	$203,220	$0	$174,189	$0	$0	$0	$0	$0	$8,709,436
(none)	HARTFORD	New Britain		E.C. Goodwin Technical High School		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
(none)	HARTFORD	New Britain		E.C. Goodwin Technical High School		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
4400-366	HARTFORD	Newington	Morgue	Cedarcrest Hospital		$110,653	$18,038	$19,304	$45,042	$0	$38,607	$0	$0	$0	$0	$0	$1,930,364
	HARTFORD	Newington				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Newington				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Newington				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Newington				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
5000-131	HARTFORD	Newington	Region 1 Office & Garage	Department of Transportation		$123,272	$72,835	$29,416	$68,638	$0	$58,832	$0	$0	$0	$0	$0	$2,941,609
5000-98	HARTFORD	Newington	Storage Garage	Department of Transportation		$3,538	$285,646	$43,378	$101,214	$0	$86,755	$0	$0	$0	$0	$0	$4,337,758
	HARTFORD	Newington				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Newington				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Newington				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Newington				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Newington				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Newington				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
4122-174122	HARTFORD	Newington	515 Maple Hill Avenue			$330,436	$25,369	$53,371	$124,532	$0	$106,741	$0	$0	$0	$0	$0	$5,337,068
4122-184122	HARTFORD	Newington	521 Maple Hill Ave			$330,436	$23,233	$53,050	$123,784	$0	$106,101	$0	$0	$0	$0	$0	$5,305,028
	HARTFORD	Newington				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Newington				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Newington				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
5000-178	HARTFORD	Newington	Training Center	DOT Headquarters		$2,077,057	$289,714	$355,016	$828,370	$0	$710,031	$0	$0	$0	$0	$0	$35,501,570
5000-4253	HARTFORD	Newington	Motor Pool Office	DOT Headquarters		$379,841	$89,554	$70,409	$164,288	$0	$140,818	$0	$0	$0	$0	$0	$7,040,922

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
5000-4254	HARTFORD	Newington	P&F Maintenance Garage	DOT Headquarters		$828,849	$172,689	$150,231	$350,538	$0	$300,462	$0	$0	$0	$0	$0	$15,023,076
5000-4209	HARTFORD	Newington	Central Files			$1,245,026	$130,446	$206,321	$481,415	$0	$412,641	$0	$0	$0	$0	$0	$20,632,075
4400-353	HARTFORD	Wethersfield	Cottage #16	Cedarcrest Hospital		$399,285	$285,646	$102,740	$239,726	$0	$205,479	$0	$0	$0	$0	$0	$10,273,969
7701-49	HARTFORD	Manchester	Frederick W. Lowe Building	Manchester Community College		$8,915,195	$6,256,194	$2,275,708	$5,309,986	$0	$4,551,417	$0	$0	$0	$0	$0	$227,570,841
4400-44	MIDDLESEX	Middletown	Cottage 7 Garage	Connecticut Valley Hospital		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
4400-43	MIDDLESEX	Middletown	Cottage 7	Connecticut Valley Hospital		$68,666	$285,646	$53,147	$177,156	$0	$106,294	$0	$0	$0	$0	$0	$5,314,688
8102-64	MIDDLESEX	Middletown	Building 8 East Campus	Connecticut Valley Hospital		$16,181,567	$1,370,252	$2,632,773	$8,775,910	$0	$5,265,546	$0	$0	$0	$0	$0	$263,277,285
5000-539	MIDDLESEX	Middletown	Salt Shed	Department of Transportation		$302,066	$285,646	$88,157	$293,856	$0	$176,314	$0	$0	$0	$0	$0	$8,815,684
	MIDDLESEX	Haddam		Agriculture Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	MIDDLESEX	Haddam		Agriculture Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	MIDDLESEX	Haddam		Agriculture Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7701-8348	LITCHFIELD	Winchester	Art and Science Building	Northwestern Community College		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7701_23	LITCHFIELD	Winchester	Green Woods Hall	Northwestern Community College		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7701-26	LITCHFIELD	Winchester	English House	Northwestern Community College		$158,744	$285,646	$66,659	$155,537	$0	$133,317	$0	$0	$0	$0	$0	$6,665,851
7701-64	LITCHFIELD	Winchester	Goulet House	Northwestern Community College		$94,914	$285,646	$57,084	$133,196	$0	$114,168	$0	$0	$0	$0	$0	$5,708,396
7701-15	LITCHFIELD	Winchester	Founders Hall	Northwestern Community College		$9,241,334	$2,092,454	$1,700,068	$3,966,826	$0	$3,400,137	$0	$0	$0	$0	$0	$170,006,827
7701-17	LITCHFIELD	Winchester	White Fine Art Biulding	Northwestern Community College		$329,104	$30,000	$53,866	$125,686	$0	$107,731	$0	$0	$0	$0	$0	$5,386,564
7701-16	LITCHFIELD	Winchester	Founders Hall Annex	Northwestern Community College		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	LITCHFIELD	Winchester	Joyner Learning Center	Northwestern Community College		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	LITCHFIELD	Barkhamsted		Department of		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
				Transportation													
	LITCHFIELD	Barkhamsted		Department of Transportation		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	LITCHFIELD	Barkhamsted		Department of Transportation		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	LITCHFIELD	Barkhamsted		Department of Transportation		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	LITCHFIELD	North Canaan		Troop B		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	LITCHFIELD	North Canaan		Troop B		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7301-369	LITCHFIELD	Torrington	3501 Torrington Classroom Building	UCONN Torrington Branch		$3,706,763	$411,751	$617,777	$1,441,480	$0	$1,235,554	$0	$0	$0	$0	$0	$61,777,711
7301-370	LITCHFIELD	Torrington	3502 Maintainers Residence	UCONN Torrington Branch		$117,574	$285,646	$60,483	$141,127	$0	$120,966	$0	$0	$0	$0	$0	$6,048,297
	LITCHFIELD	Litchfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	LITCHFIELD	Litchfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Cheshire				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Cheshire				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Cheshire				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Cheshire				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Cheshire				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Meriden		Department of Transportation		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Meriden		Department of Transportation		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Meriden		Department of Transportation		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
2000-7101	NEW HAVEN	Meriden	Forensics Laboratory	Mulcahy Complex		$6,816,098	$3,074,571	$1,483,600	$4,945,334	$0	$2,967,201	$0	$0	$0	$0	$0	$148,360,029
2000-8	NEW HAVEN	Meriden	Building #9	Mulcahy Complex		$939,394	$1,567,907	$376,095	$1,253,651	$0	$752,190	$0	$0	$0	$0	$0	$37,609,515

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
2000-9	NEW HAVEN	Meriden	Building # 10	Mulcahy Complex		$956,076	$63,884	$152,994	$509,980	$0	$305,988	$0	$0	$0	$0	$0	$15,299,404
2000-10	NEW HAVEN	Meriden	Building #11	Mulcahy Complex		$1,441,845	$313,607	$263,318	$877,726	$0	$526,636	$0	$0	$0	$0	$0	$26,331,786
2000-2	NEW HAVEN	Meriden	Building #2	Mulcahy Complex		$687,933	$128,851	$122,518	$408,392	$0	$245,035	$0	$0	$0	$0	$0	$12,251,756
1326-523	NEW HAVEN	Meriden	Highland House #5	Henry D. Altobello Children & Youth Center		$202,835	$285,646	$73,272	$244,240	$0	$146,544	$0	$0	$0	$0	$0	$7,327,213
1326-8521	NEW HAVEN	Meriden	Garage #14	Henry D. Altobello Children & Youth Center		$297,546	$285,646	$87,479	$291,596	$0	$174,958	$0	$0	$0	$0	$0	$8,747,888
1326-525	NEW HAVEN	Meriden	Cliff House #4	Henry D. Altobello Children & Youth Center		$437,100	$285,646	$108,412	$361,373	$0	$216,824	$0	$0	$0	$0	$0	$10,841,193
	NEW HAVEN	Branford		Department of Transportation		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Madison		Mosquito Control		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Madison		Mosquito Control		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Danbury				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Danbury				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Bridgeport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Bridgeport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Bridgeport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Bridgeport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Bridgeport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Bridgeport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Bridgeport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Norwalk				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Norwalk				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Norwalk				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Norwalk		Courthouse		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Norwalk				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Norwalk				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Norwalk				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Norwalk				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	New Canaan				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	New Canaan				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
4400-46	MIDDLESEX	Middletown	Cottage 9 Garage	Connecticut Valley Hospital		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7302-8	HARTFORD	Farmington	John Dempsey Hospital	UCONN HEALTH CENTER		$53,620,015	$17,343,204	$10,644,483	$24,837,127	$0	$21,288,966	$0	$0	$0	$0	$0	$1,064,448,284

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
7302-1	HARTFORD	Farmington	Academic Building	UCONN HEALTH CENTER		$40,654,201	$8,156,642	$7,321,626	$17,083,795	$0	$14,643,253	$0	$0	$0	$0	$0	$732,162,643
7302-3	HARTFORD	Farmington	Building B	UCONN HEALTH CENTER		$11,659,216	$3,098,579	$2,213,669	$5,165,228	$0	$4,427,338	$0	$0	$0	$0	$0	$221,366,920
7302-29	HARTFORD	Farmington	Building 20	UCONN HEALTH CENTER		$2,599,532	$525,694	$468,784	$1,093,829	$0	$937,568	$0	$0	$0	$0	$0	$46,878,393
7302-478	HARTFORD	Farmington	Academic Research Building	UCONN HEALTH CENTER		$42,315,686	$14,011,975	$8,449,149	$19,714,681	$0	$16,898,298	$0	$0	$0	$0	$0	$844,914,905
4400-37	MIDDLESEX	Middletown	Chlorinating PI	Connecticut Valley Hospital		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
8102-67	MIDDLESEX	Middletown	Quinnipiac Bldg #3			$474,821	$24,127	$74,842	$249,474	$0	$149,684	$0	$0	$0	$0	$0	$7,484,220
8102-65	MIDDLESEX	Middletown	Riverview School/ West Bldg#5			$2,149,175	$196,835	$351,902	$1,173,005	$0	$703,803	$0	$0	$0	$0	$0	$35,190,150
8102-68	MIDDLESEX	Middletown	Lakota Bldg # 2			$397,910	$19,419	$62,599	$208,665	$0	$125,199	$0	$0	$0	$0	$0	$6,259,935
8102-7339	MIDDLESEX	Middletown	Garage			$175,000	$285,646	$69,097	$230,323	$0	$138,194	$0	$0	$0	$0	$0	$6,909,692
8102-7340	MIDDLESEX	Middletown	Storage Shed at Kiwani Bldg #4			$1,707	$285,646	$43,103	$143,677	$0	$86,206	$0	$0	$0	$0	$0	$4,310,297
8102-70	MIDDLESEX	Middletown	Pin Oaks Shelter/ Bldg #6			$15,000	$285,646	$45,097	$150,323	$0	$90,194	$0	$0	$0	$0	$0	$4,509,692
3400-16	NEW HAVEN	Guilford	STORAGE SHED			$154,929	$285,646	$66,086	$220,287	$0	$132,172	$0	$0	$0	$0	$0	$6,608,623
3400-17	NEW HAVEN	Guilford	STORAGE GARAGE			$20,455	$285,646	$45,915	$153,050	$0	$91,830	$0	$0	$0	$0	$0	$4,591,512
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
8102-7342	MIDDLESEX	Middletown	Storage Shed by Tennis Courts			$1,707	$285,646	$43,103	$143,677	$0	$86,206	$0	$0	$0	$0	$0	$4,310,297
8102-7347	MIDDLESEX	Middletown	Storage Shed			$3,308	$285,646	$43,343	$144,477	$0	$86,686	$0	$0	$0	$0	$0	$4,334,311

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
8102-7341	MIDDLESEX	Middletown	Storage Shed by Blg West			$1,707	$285,646	$43,103	$143,677	$0	$86,206	$0	$0	$0	$0	$0	$4,310,297
8102-7343	MIDDLESEX	Middletown	Storage Shed at Bldg #2			$16,937	$285,646	$45,387	$151,291	$0	$90,775	$0	$0	$0	$0	$0	$4,538,742
8102-7345	MIDDLESEX	Middletown	Storage Shed at School West Maintenance			$14,820	$285,646	$45,070	$150,233	$0	$90,140	$0	$0	$0	$0	$0	$4,506,986
8102-7344	MIDDLESEX	Middletown	Storage Shed by Ballfield			$95,269	$285,646	$57,137	$190,457	$0	$114,274	$0	$0	$0	$0	$0	$5,713,723
1326-8528	NEW HAVEN	Meriden	Water Tank (Demolished)	Henry D. Altobello Children & Youth Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
4124-1921	LITCHFIELD	Torrington	Migeon Hall Garage			$16,640	$285,646	$45,343	$105,800	$0	$90,686	$0	$0	$0	$0	$0	$4,534,292
4124-1721	LITCHFIELD	Torrington	Tunick House Group Home			$356,200	$4,110	$54,047	$126,109	$0	$108,093	$0	$0	$0	$0	$0	$5,404,652
4124-1621	LITCHFIELD	Torrington	Tunick Hall/Garage			$16,640	$285,646	$45,343	$105,800	$0	$90,686	$0	$0	$0	$0	$0	$4,534,292
5000-615	HARTFORD	West Hartford	Bus Shelter			$4,649	$285,646	$43,544	$101,603	$0	$87,089	$0	$0	$0	$0	$0	$4,354,426
7701-25	LITCHFIELD	Winchester	Child Daycare Center			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7701-19	LITCHFIELD	Winchester	Learning Resource Center			$337,509	$4,346	$51,278	$119,649	$0	$102,556	$0	$0	$0	$0	$0	$5,127,824
7701-14	LITCHFIELD	Winchester	Administration Building			$522,220	$49,720	$85,791	$200,179	$0	$171,582	$0	$0	$0	$0	$0	$8,579,102
7701-24	LITCHFIELD	Winchester	Maintenance Garage/ Storage			$105,356	$84,394	$28,463	$66,413	$0	$56,925	$0	$0	$0	$0	$0	$2,846,252
7701-7102	HARTFORD	Manchester	AS&T			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7701-8340	HARTFORD	Manchester	Village Building #1			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7701-8341	HARTFORD	Manchester	Village Building #2			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7701-8342	HARTFORD	Manchester	Village Building #3			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7701-8343	HARTFORD	Manchester	Village Building #4			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7701-8344	HARTFORD	Manchester	Village Building #5			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7701-8345	HARTFORD	Manchester	Village Building #6			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
4125-224125	NEW HAVEN	Meriden	Generator Building	Henry D. Altobello Children & Youth Center		$35,484	$285,646	$48,169	$160,565	$0	$96,339	$0	$0	$0	$0	$0	$4,816,945
1326-518	NEW HAVEN	Meriden	Unnamed Structure	Henry D. Altobello Children & Youth Center		$28,244	$285,646	$47,084	$156,945	$0	$94,167	$0	$0	$0	$0	$0	$4,708,358
5000-530	HARTFORD	Wethersfield	Storage Shed			$7,890	$285,646	$44,030	$102,738	$0	$88,061	$0	$0	$0	$0	$0	$4,403,044
4122-241229	HARTFORD	Newington	Storage Building			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
4122-541229	HARTFORD	Newington	Green House			$22,570	$285,646	$46,232	$107,876	$0	$92,465	$0	$0	$0	$0	$0	$4,623,241
4122-314122	HARTFORD	Newington	318 Mountain Road			$315,130	$10,050	$48,777	$113,813	$0	$97,554	$0	$0	$0	$0	$0	$4,877,703
2201-73	MIDDLESEX	Westbrook	State Armory			$1,157,785	$2,389	$174,026	$580,087	$0	$348,052	$0	$0	$0	$0	$0	$17,402,617
5000-180	MIDDLESEX	Westbrook	Tourism Center/Rest Area			$218,842	$285,646	$75,673	$252,244	$0	$151,347	$0	$0	$0	$0	$0	$7,567,326
	MIDDLESEX	Killingworth				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
5000-135	HARTFORD	Southington	Rest Area			$921,554	$16,795	$140,752	$328,422	$0	$281,505	$0	$0	$0	$0	$0	$14,075,237

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
5000-803	HARTFORD	Southington	Storage Shed			$321	$285,646	$42,895	$100,089	$0	$85,790	$0	$0	$0	$0	$0	$4,289,507
4122-204122	HARTFORD	Rocky Hill	1021 Maple Street			$330,436	$24,163	$53,190	$124,109	$0	$106,380	$0	$0	$0	$0	$0	$5,318,978
4122-214122	HARTFORD	Rocky Hill	1069 Maple Street			$330,436	$27,789	$53,734	$125,379	$0	$107,467	$0	$0	$0	$0	$0	$5,373,368
7104-2	HARTFORD	Rocky Hill	Library for the Blind			$1,435,931	$4,382,007	$872,691	$2,036,278	$0	$1,745,381	$0	$0	$0	$0	$0	$87,269,065
5000-413	HARTFORD	Rocky Hill	Chemical Solvent Storage			$16,280	$285,646	$45,289	$105,674	$0	$90,578	$0	$0	$0	$0	$0	$4,528,887
1312-7107	HARTFORD	Rocky Hill	Mechanical Bulding			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
1312-7103	HARTFORD	Rocky Hill	Water Tank Large			$507,563	$285,646	$118,981	$277,623	$0	$237,963	$0	$0	$0	$0	$0	$11,898,134
1312-7102	HARTFORD	Rocky Hill	Water Tank Small			$146,873	$285,646	$64,878	$151,382	$0	$129,756	$0	$0	$0	$0	$0	$6,487,791
1312-7105	HARTFORD	Rocky Hill	John Levitow Memorial Adult Care Facility			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
1326-7102	HARTFORD	Rocky Hill	Office of the Chief State's Attorney			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
5000-380	HARTFORD	Glastonbury	Radio Shack			$10,729	$15,194	$3,888	$9,073	$0	$7,777	$0	$0	$0	$0	$0	$388,845
5000-7114	HARTFORD	Rocky Hill	Storage Container			$2,392	$285,646	$43,206	$100,813	$0	$86,411	$0	$0	$0	$0	$0	$4,320,571
5000-7113	HARTFORD	Rocky Hill	Storage Container			$2,392	$285,646	$43,206	$100,813	$0	$86,411	$0	$0	$0	$0	$0	$4,320,571
5000-7224	HARTFORD	Rocky Hill	Storage Container			$2,207	$285,646	$43,178	$100,749	$0	$86,356	$0	$0	$0	$0	$0	$4,317,799
5000-7227	HARTFORD	Rocky Hill	Storage Container			$2,975	$285,646	$43,293	$101,017	$0	$86,586	$0	$0	$0	$0	$0	$4,329,321
11500	HARTFORD	Rocky Hill	Exhibit Hall			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
3100-102	HARTFORD	Rocky Hill	Guard House			$7,101	$285,646	$43,912	$102,462	$0	$87,824	$0	$0	$0	$0	$0	$4,391,213
3100-105	HARTFORD	Rocky Hill	Maintenance Building			$53,117	$285,646	$50,814	$118,567	$0	$101,629	$0	$0	$0	$0	$0	$5,081,443
3100-104	HARTFORD	Rocky Hill	Dwelling			$90,307	$285,646	$56,393	$131,584	$0	$112,786	$0	$0	$0	$0	$0	$5,639,295
5000-578	HARTFORD	Rocky Hill	Bus Shelter			$4,649	$285,646	$43,544	$101,603	$0	$87,089	$0	$0	$0	$0	$0	$4,354,426
5000-582	HARTFORD	Rocky Hill	Bus Shelter			$4,649	$285,646	$43,544	$101,603	$0	$87,089	$0	$0	$0	$0	$0	$4,354,426
5000-579	HARTFORD	Rocky Hill	Bus Shelter			$4,649	$285,646	$43,544	$101,603	$0	$87,089	$0	$0	$0	$0	$0	$4,354,426
5000-580	HARTFORD	Rocky Hill	Bus Shelter			$4,649	$285,646	$43,544	$101,603	$0	$87,089	$0	$0	$0	$0	$0	$4,354,426
5000-562	HARTFORD	Rocky Hill	Bus Shelter			$4,958	$285,646	$43,591	$101,711	$0	$87,181	$0	$0	$0	$0	$0	$4,359,057
7802-7115	HARTFORD	New Britain	East Hall Storage Shed			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7802-7105	HARTFORD	New Britain	Early Learning Center			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
2201-14	HARTFORD	Bristol	State Armory			$2,711,121	$3,490	$407,192	$950,114	$0	$814,383	$0	$0	$0	$0	$0	$40,719,158
3500-2	HARTFORD	Bristol	Thorpe House			$148,174	$285,646	$65,073	$151,837	$0	$130,146	$0	$0	$0	$0	$0	$6,507,301
5000-677	HARTFORD	Bristol	Bus Shelter			$5,013	$285,646	$43,599	$101,731	$0	$87,198	$0	$0	$0	$0	$0	$4,359,893
5000-564	HARTFORD	Bristol	Bus Shelter			$2,661	$285,646	$43,246	$100,907	$0	$86,492	$0	$0	$0	$0	$0	$4,324,600
3100-47	HARTFORD	Burlington	Garage Storage			$12,836	$285,646	$44,772	$104,469	$0	$89,545	$0	$0	$0	$0	$0	$4,477,238
3100-40	HARTFORD	Burlington	Storage			$29,298	$285,646	$47,242	$110,230	$0	$94,483	$0	$0	$0	$0	$0	$4,724,164
3100-39	HARTFORD	Burlington	Storage			$216	$285,646	$42,879	$100,052	$0	$85,759	$0	$0	$0	$0	$0	$4,287,935
3100-2697	HARTFORD	Burlington	Conservation Center			$453,199	$310,000	$114,480	$267,120	$0	$228,960	$0	$0	$0	$0	$0	$11,447,990
3100-556	HARTFORD	Burlington	4 Bay Garage South			$4,376	$18,328	$3,406	$7,946	$0	$6,811	$0	$0	$0	$0	$0	$340,560
3100-558	HARTFORD	Burlington	Overnight Lodge			$39,412	$1,859	$6,191	$14,445	$0	$12,381	$0	$0	$0	$0	$0	$619,064
3100-562	HARTFORD	Burlington	Flammable Materials Shed			$1,351	$285,646	$43,050	$100,449	$0	$86,099	$0	$0	$0	$0	$0	$4,304,959
3100-559	HARTFORD	Burlington	Caretakers Lodge			$27,734	$23,081	$7,622	$17,785	$0	$15,244	$0	$0	$0	$0	$0	$762,215
3100-47	HARTFORD	Burlington	Garage Storage			$12,836	$285,646	$44,772	$104,469	$0	$89,545	$0	$0	$0	$0	$0	$4,477,238
3100-560	HARTFORD	Burlington				$32,118	$9,382	$6,225	$14,525	$0	$12,450	$0	$0	$0	$0	$0	$622,498
3100-557	HARTFORD	Burlington	Workshop/Necropsy			$4,376	$14,515	$2,834	$6,612	$0	$5,667	$0	$0	$0	$0	$0	$283,369

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
5000-7198	HARTFORD	Burlington	Salt Shed			$1,166,699	$10,762	$176,619	$412,111	$0	$353,238	$0	$0	$0	$0	$0	$17,661,915
5000-7199	HARTFORD	Burlington	Personnel Shelter			$23,685	$285,646	$46,400	$108,266	$0	$92,799	$0	$0	$0	$0	$0	$4,639,967
3100-564	HARTFORD	Farmington	Garage and Open			$96,733	$7,020	$15,563	$36,314	$0	$31,126	$0	$0	$0	$0	$0	$1,556,295
3100-2698	HARTFORD	Farmington	Fire Equipment Storage			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7302-22	HARTFORD	Farmington	Flammable Storage			$62,010	$285,646	$52,148	$121,680	$0	$104,297	$0	$0	$0	$0	$0	$5,214,841
3100-627	HARTFORD	Simsbury	Headquarters Shed			$778	$285,646	$42,964	$100,248	$0	$85,927	$0	$0	$0	$0	$0	$4,296,363
4122-264122	HARTFORD	Simsbury	38 Great Pond Road			$356,445	$285,646	$96,314	$224,732	$0	$192,627	$0	$0	$0	$0	$0	$9,631,370
7302--7811	HARTFORD	Simsbury	Simsbury-UMG			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Meriden	Pump House #15	Henry D. Altobello Children & Youth Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Brooklyn				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
8000-300	WINDHAM	Brooklyn	Old Jail	Brooklyn Correctional Center		$4,335,109	$285,646	$693,113	$1,617,264	$0	$1,386,227	$0	$0	$0	$0	$0	$69,311,328
	WINDHAM	Brooklyn				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Brooklyn				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Brooklyn				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Brooklyn				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Brooklyn				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Brooklyn				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Brooklyn				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7805-478	TOLLAND	Mansfield	Athletic Complex	Eastern Connecticut State University - Mansfield Sports Complex	Sports/Gymnasium	$2,129,418	$2,719	$319,821	$746,248	$0	$639,641	$0	$0	$0	$0	$0	$31,982,057
7301-18	TOLLAND	Mansfield	0024 Urban Research Institute	University of Connecticut - Storrs Campus	Office	$67,624	$23,062	$13,603	$31,740	$0	$27,206	$0	$0	$0	$0	$0	$1,360,283
7301-17	TOLLAND	Mansfield	0023 House 27	University of Connecticut - Storrs Campus	Office	$82,254	$28,721	$16,646	$38,841	$0	$33,292	$0	$0	$0	$0	$0	$1,664,620
7301-12	TOLLAND	Mansfield	0014 House 28	University of Connecticut - Storrs Campus	Office	$104,319	$1,625	$15,892	$37,081	$0	$31,783	$0	$0	$0	$0	$0	$1,589,165
7301-141	TOLLAND	Mansfield	0224 Hollister Hall (A,B) W.C. 2	University of Connecticut - Storrs Campus		$2,216,484	$72,387	$343,331	$801,105	$0	$686,661	$0	$0	$0	$0	$0	$34,333,055
7301-174	TOLLAND	Mansfield	0263 McMahon Hall & Dining Facility	University of Connecticut - Storrs Campus	Residence	$18,736,967	$524,465	$2,889,215	$6,741,501	$0	$5,778,430	$0	$0	$0	$0	$0	$288,921,484
7301-7184	TOLLAND	Mansfield	0417 South Parking Garage	University of Connecticut - Storrs Campus	Other	$14,626,356	$3,993	$2,194,552	$5,120,622	$0	$4,389,105	$0	$0	$0	$0	$0	$219,455,237

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
7301-7101	TOLLAND	Mansfield	0383 Thomas J. Dodd Research Center	University of Connecticut - Storrs Campus		$10,570,982	$38,687,864	$7,388,827	$17,240,596	$0	$14,777,654	$0	$0	$0	$0	$0	$738,882,684
7301-208	TOLLAND	Mansfield	0324 Whetten Graduate Center	University of Connecticut - Storrs Campus	Education	$7,404,105	$1,174,917	$1,286,853	$3,002,658	$0	$2,573,707	$0	$0	$0	$0	$0	$128,685,332
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7301-244	TOLLAND	Mansfield	0364 Babbidge Library (Homer)	University of Connecticut - Storrs Campus	Library	$80,178,229	$97,504,280	$26,652,376	$62,188,878	$0	$53,304,753	$0	$0	$0	$0	$0	$2,665,237,628
7301-6	TOLLAND	Mansfield	0006 Hawley Armory	University of Connecticut - Storrs Campus	Office	$2,051,799	$236,651	$343,267	$800,957	$0	$686,535	$0	$0	$0	$0	$0	$34,326,749
7301-96	TOLLAND	Mansfield	0172 Budds Building (Administration)	University of Connecticut - Storrs Campus	Office	$3,605,526	$785,565	$658,664	$1,536,882	$0	$1,317,327	$0	$0	$0	$0	$0	$65,866,368
7301-54	TOLLAND	Mansfield	0130 Manchester Hall	University of Connecticut - Storrs Campus	Education	$3,397,622	$429,539	$574,074	$1,339,507	$0	$1,148,149	$0	$0	$0	$0	$0	$57,407,426
7301-62	TOLLAND	Mansfield	0138 Family Studies Bldg / DRM	University of Connecticut - Storrs Campus	Education	$4,106,944	$484,780	$688,759	$1,607,103	$0	$1,377,517	$0	$0	$0	$0	$0	$68,875,860
7301-4	TOLLAND	Mansfield	0004 Koons Hall	University of Connecticut - Storrs Campus	Education	$3,874,324	$1,050,518	$738,726	$1,723,695	$0	$1,477,453	$0	$0	$0	$0	$0	$73,872,636
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7301-23	TOLLAND	Mansfield	0029 Benton Museum Of Art	University of Connecticut - Storrs Campus	Museum	$5,859,717	$7,428,303	$1,993,203	$4,650,807	$0	$3,986,406	$0	$0	$0	$0	$0	$199,320,306
7301-161	TOLLAND	Mansfield	0246 Ctr for Undergraduate Ed	University of Connecticut - Storrs Campus	Education	$21,929,071	$3,282,935	$3,781,801	$8,824,202	$0	$7,563,602	$0	$0	$0	$0	$0	$378,180,102
7301-162	TOLLAND	Mansfield	0247 Gentry Building (School Of Education)	University of Connecticut - Storrs Campus	Education	$21,683,067	$2,667,834	$3,652,635	$8,522,815	$0	$7,305,270	$0	$0	$0	$0	$0	$365,263,504
7301-7145	TOLLAND	Mansfield	0133 Castleman	University of Connecticut - Storrs Campus	Education	$17,123,854	$4,066,751	$3,178,591	$7,416,712	$0	$6,357,181	$0	$0	$0	$0	$0	$317,859,071

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
7301-7159	TOLLAND	Mansfield	0213 Student Union	University of Connecticut - Storrs Campus	Other	$81,872,036	$2,100,480	$12,595,877	$29,390,381	$0	$25,191,755	$0	$0	$0	$0	$0	$1,259,587,742
7301-2	TOLLAND	Mansfield	0002 Gulley Hall	University of Connecticut - Storrs Campus	Office	$3,142,278	$437,828	$537,016	$1,253,037	$0	$1,074,032	$0	$0	$0	$0	$0	$53,701,593
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7301-166	TOLLAND	Mansfield	0253 Towers Dorms, Building 1 (A,B)	University of Connecticut - Storrs Campus	Residence	$6,286,524	$36,715	$948,486	$2,213,134	$0	$1,896,972	$0	$0	$0	$0	$0	$94,848,587
7301-167	TOLLAND	Mansfield	0254 Towers Dorms, Building 2 (A,B)	University of Connecticut - Storrs Campus	Residence	$6,165,444	$79,312	$936,713	$2,185,665	$0	$1,873,427	$0	$0	$0	$0	$0	$93,671,347
7301-168	TOLLAND	Mansfield	0255 Towers Dorms, Building 3 (A-D)	University of Connecticut - Storrs Campus	Residence	$11,013,243	$79,415	$1,663,899	$3,882,430	$0	$3,327,797	$0	$0	$0	$0	$0	$166,389,872
7301-170	TOLLAND	Mansfield	0257 Towers Dorms, Building 5 (A,B)	University of Connecticut - Storrs Campus	Residence	$6,423,528	$47,144	$970,601	$2,264,735	$0	$1,941,202	$0	$0	$0	$0	$0	$97,060,078
7301-171	TOLLAND	Mansfield	0258 Towers Dorms, Building 6 (A,B)	University of Connecticut - Storrs Campus	Residence	$6,395,391	$42,305	$965,654	$2,253,194	$0	$1,931,309	$0	$0	$0	$0	$0	$96,565,441
7301-222	TOLLAND	Mansfield	0339 Towers Dorms Student Center	University of Connecticut - Storrs Campus	Residence	$2,227,858	$33,617	$339,221	$791,516	$0	$678,442	$0	$0	$0	$0	$0	$33,922,119
7301-7232	TOLLAND	Mansfield	0476 Gelfenbien Towers Central Dining	University of Connecticut - Storrs Campus	Cafeteria/Food Service	$6,945,121	$57,895	$1,050,452	$2,451,056	$0	$2,100,905	$0	$0	$0	$0	$0	$105,045,239
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7301-7228	TOLLAND	Mansfield	0472 Husky Village/Greek D1,D2	University of Connecticut - Storrs Campus	Residence	$1,853,932	$12,285	$279,933	$653,176	$0	$559,865	$0	$0	$0	$0	$0	$27,993,254
7301-7226	TOLLAND	Mansfield	0470 Husky Village/Greek B1,B2	University of Connecticut - Storrs Campus	Residence	$1,853,932	$8,713	$279,397	$651,926	$0	$558,793	$0	$0	$0	$0	$0	$27,939,672
7301-354	TOLLAND	Mansfield	1126 Kellogg Dairy Center	University of Connecticut - Storrs Campus		$2,052,732	$179,116	$334,777	$781,147	$0	$669,554	$0	$0	$0	$0	$0	$33,477,718
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7301-39	TOLLAND	Mansfield	0054 Jacobson Barn	University of Connecticut - Storrs Campus	Other	$815,868	$285,646	$165,227	$385,530	$0	$330,454	$0	$0	$0	$0	$0	$16,522,719
7301-37	TOLLAND	Mansfield	0049 Rosebrooks House	University of Connecticut - Storrs Campus	Office	$163,848	$45,324	$31,376	$73,210	$0	$62,752	$0	$0	$0	$0	$0	$3,137,577
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7301-515	TOLLAND	Mansfield	0433 Ice Arena	University of Connecticut - Storrs Campus		$4,708,085	$260,498	$745,287	$1,739,004	$0	$1,490,575	$0	$0	$0	$0	$0	$74,528,748
7301-7199	TOLLAND	Mansfield	0454 Crawford Hall, Hilltop Apt. 21	University of Connecticut - Storrs Campus	Residence	$3,183,767	$285,646	$520,412	$1,214,294	$0	$1,040,824	$0	$0	$0	$0	$0	$52,041,192
7301-7198	TOLLAND	Mansfield	0453 Wheeler Hall, Hilltop Apt. 20	University of Connecticut - Storrs Campus	Residence	$3,046,109	$285,646	$499,763	$1,166,114	$0	$999,527	$0	$0	$0	$0	$0	$49,976,333
7301-7197	TOLLAND	Mansfield	0452 Wu Hall, Hilltop Apt. 19	University of Connecticut - Storrs Campus	Residence	$2,033,093	$285,646	$347,811	$811,559	$0	$695,622	$0	$0	$0	$0	$0	$34,781,083
7301-7191	TOLLAND	Mansfield	0446 French Hall, Hilltop Apt. 13	University of Connecticut - Storrs Campus	Residence	$2,294,289	$285,646	$386,990	$902,977	$0	$773,980	$0	$0	$0	$0	$0	$38,699,022
7301-7201	TOLLAND	Mansfield	0456 Hilltop Community Center	University of Connecticut - Storrs Campus	Other	$427,091	$28,750	$68,376	$159,544	$0	$136,752	$0	$0	$0	$0	$0	$6,837,603
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7301-1119	TOLLAND	Mansfield	0382 Tasker Admissions	University of Connecticut - Storrs Campus	Office	$2,842,885	$754,060	$539,542	$1,258,931	$0	$1,079,084	$0	$0	$0	$0	$0	$53,954,175
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7301-512	TOLLAND	Mansfield	0413 Parking Garage/ North	University of Connecticut - Storrs Campus		$9,234,802	$39,854	$1,391,198	$3,246,130	$0	$2,782,397	$0	$0	$0	$0	$0	$139,119,839

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
7301-153	TOLLAND	Mansfield	0239 Engineering II	University of Connecticut - Storrs Campus	Education	$8,567,928	$5,658,590	$2,133,978	$4,979,281	$0	$4,267,955	$0	$0	$0	$0	$0	$213,397,773
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7301-87	TOLLAND	Mansfield	0163 Hanks Hall (A,B) Nw Qd 1	University of Connecticut - Storrs Campus	Residence	$5,303,425	$33,443	$800,530	$1,867,904	$0	$1,601,060	$0	$0	$0	$0	$0	$80,053,022
7301-89	TOLLAND	Mansfield	0165 Russell Hall (A-D) Nw Qd 3	University of Connecticut - Storrs Campus	Residence	$10,561,646	$52,914	$1,592,184	$3,715,096	$0	$3,184,368	$0	$0	$0	$0	$0	$159,218,409
7301-91	TOLLAND	Mansfield	0167 Terry Hall (A,B) Nw Qd 5	University of Connecticut - Storrs Campus	Residence	$5,256,527	$12,048	$790,286	$1,844,001	$0	$1,580,573	$0	$0	$0	$0	$0	$79,028,629
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7301-88	TOLLAND	Mansfield	0164 Goodyear Hall (A,B) Nw Qd 2	University of Connecticut - Storrs Campus	Residence	$5,223,752	$36,449	$789,030	$1,841,070	$0	$1,578,060	$0	$0	$0	$0	$0	$78,903,014
7301-73	TOLLAND	Mansfield	0149 Hartford Hall, Nc 1	University of Connecticut - Storrs Campus	Residence	$3,087,700	$80,965	$475,300	$1,109,033	$0	$950,599	$0	$0	$0	$0	$0	$47,529,970
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7301-173	TOLLAND	Mansfield	0262 Facility Maintenance/Storage	University of Connecticut - Storrs Campus	Storage/Warehouse	$581,102	$70,825	$97,789	$228,174	$0	$195,578	$0	$0	$0	$0	$0	$9,778,891
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
5000-192	TOLLAND	Willington	Repair Garage	Willington DOT Garage	Maintenance/Repair Shop	$3,503,182	$317,989	$573,176	$1,337,410	$0	$1,146,351	$0	$0	$0	$0	$0	$57,317,564
	TOLLAND	Tolland	Radio Tower Support Building	Troop C	Communications	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
2201-204	NEW LONDON	East Lyme	Barracks - 200 Person	Camp Rell	Troop Barracks	$1,503,265	$285,646	$268,337	$894,455	$0	$536,673	$0	$0	$0	$0	$0	$26,833,662

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
2201-149	NEW LONDON	East Lyme	Class Room	Camp Rell	Military	$141,418	$285,646	$64,060	$213,532	$0	$128,119	$0	$0	$0	$0	$0	$6,405,960
2201-148	NEW LONDON	East Lyme	Class Room	Camp Rell	Military	$145,570	$285,646	$64,682	$215,608	$0	$129,365	$0	$0	$0	$0	$0	$6,468,242
2201-147	NEW LONDON	East Lyme	Class Room	Camp Rell	Military	$58,342	$285,646	$51,598	$171,994	$0	$103,196	$0	$0	$0	$0	$0	$5,159,818
2201-146	NEW LONDON	East Lyme	Orderly Room	Camp Rell	Education	$87,519	$285,646	$55,975	$186,583	$0	$111,950	$0	$0	$0	$0	$0	$5,597,477
2201-143	NEW LONDON	East Lyme	Classroom	Camp Rell	Military	$87,519	$285,646	$55,975	$186,583	$0	$111,950	$0	$0	$0	$0	$0	$5,597,477
2201-142	NEW LONDON	East Lyme	Classroom	Camp Rell	Military	$87,519	$285,646	$55,975	$186,583	$0	$111,950	$0	$0	$0	$0	$0	$5,597,477
2201-141	NEW LONDON	East Lyme	Classroom	Camp Rell	Military	$58,342	$285,646	$51,598	$171,994	$0	$103,196	$0	$0	$0	$0	$0	$5,159,818
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
2201-139	NEW LONDON	East Lyme	Admin. / Supply	Camp Rell	Military	$119,427	$285,646	$60,761	$202,537	$0	$121,522	$0	$0	$0	$0	$0	$6,076,104
2201-153	NEW LONDON	East Lyme	Mess Hall	Camp Rell	Military	$58,342	$285,646	$51,598	$171,994	$0	$103,196	$0	$0	$0	$0	$0	$5,159,818
2201-154	NEW LONDON	East Lyme	Laundry/Storage	Camp Rell	Military	$58,342	$285,646	$51,598	$171,994	$0	$103,196	$0	$0	$0	$0	$0	$5,159,818
2201-155	NEW LONDON	East Lyme	Mess Hall	Camp Rell	Cafeteria/Food Service	$131,282	$285,646	$62,539	$208,464	$0	$125,078	$0	$0	$0	$0	$0	$6,253,924
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
2201-184	NEW LONDON	East Lyme	Female Barracks	Camp Rell	Troop Barracks	$182,344	$285,646	$70,198	$233,995	$0	$140,397	$0	$0	$0	$0	$0	$7,019,847
2201-161	NEW LONDON	East Lyme	Senior Officers Quarters	Camp Rell	Military	$70,019	$1,048	$10,660	$35,534	$0	$21,320	$0	$0	$0	$0	$0	$1,066,008
2201-192	NEW LONDON	East Lyme	BOQ-(Male)	Camp Rell	Troop Barracks	$87,519	$285,646	$55,975	$186,583	$0	$111,950	$0	$0	$0	$0	$0	$5,597,477
2201-193	NEW LONDON	East Lyme	Leadership Hall	Camp Rell	Troop Barracks	$58,342	$285,646	$51,598	$171,994	$0	$103,196	$0	$0	$0	$0	$0	$5,159,818
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	New London				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	New London				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	New London				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	New London				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	New London				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	New London				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	New London				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Montville				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Montville				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Preston				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
5000-29	NEW LONDON	Lisbon	Repair Garage And Office	Not Part Of A Facility	Maintenance/Repair Shop	$422,487	$292,156	$107,196	$357,322	$0	$214,393	$0	$0	$0	$0	$0	$10,719,649
	NEW LONDON	Lisbon				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7301-467	TOLLAND	Mansfield	2135 Depot - Lebanon Cottage	University of Connecticut - Depot		$1,018,403	$39,067	$158,620	$370,114	$0	$317,241	$0	$0	$0	$0	$0	$15,862,048
7301-456	TOLLAND	Mansfield	2124 Depot - Hampton Cottage	University of Connecticut - Depot		$1,151,479	$567,798	$257,892	$601,747	$0	$515,783	$0	$0	$0	$0	$0	$25,789,157
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7301-488	TOLLAND	Mansfield	2166 Depot - Thomson Hall	University of Connecticut - Depot		$8,096,524	$911,755	$1,351,242	$3,152,898	$0	$2,702,484	$0	$0	$0	$0	$0	$135,124,192
7301-353	TOLLAND	Mansfield	1125 Depot - Longley School	University of Connecticut - Depot		$9,846,963	$7,462,810	$2,596,466	$6,058,421	$0	$5,192,932	$0	$0	$0	$0	$0	$259,646,601
7301-447	TOLLAND	Mansfield	2113 Depot - Dimock House	University of Connecticut - Depot		$2,754,702	$285,646	$456,052	$1,064,122	$0	$912,105	$0	$0	$0	$0	$0	$45,605,228
7301-463	TOLLAND	Mansfield	2131 Depot - Kennedy Cottage	University of Connecticut - Depot	Maintenance/Repair Shop	$2,568,997	$402,429	$445,714	$1,039,999	$0	$891,428	$0	$0	$0	$0	$0	$44,571,389
7301-470	TOLLAND	Mansfield	2138 Depot - Mansfield Cottage	University of Connecticut - Depot		$378,273	$17,331	$59,341	$138,461	$0	$118,681	$0	$0	$0	$0	$0	$5,934,059
7301-491	TOLLAND	Mansfield	2169 Depot - Union Cottage	University of Connecticut - Depot		$561,280	$197,198	$113,772	$265,467	$0	$227,543	$0	$0	$0	$0	$0	$11,377,172
7301-469	TOLLAND	Mansfield	2137 Depot - Manchester Cottage	University of Connecticut - Depot		$569,463	$106,870	$101,450	$236,716	$0	$202,900	$0	$0	$0	$0	$0	$10,144,990

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
7301-448	TOLLAND	Mansfield	2114 Depot - Ellington Cottage	University of Connecticut - Depot		$378,273	$5,998	$57,641	$134,495	$0	$115,281	$0	$0	$0	$0	$0	$5,764,060
7301-446	TOLLAND	Mansfield	2112 Depot - Coventry Cottage	University of Connecticut - Depot		$442,962	$285,646	$109,291	$255,013	$0	$218,582	$0	$0	$0	$0	$0	$10,929,120
7301-445	TOLLAND	Mansfield	2111 Depot - Columbia Cottage	University of Connecticut - Depot		$454,317	$44,029	$74,752	$174,421	$0	$149,504	$0	$0	$0	$0	$0	$7,475,179
7301-496	TOLLAND	Mansfield	2175 Depot - Willington Cottage	University of Connecticut - Depot		$378,273	$40,081	$62,753	$146,424	$0	$125,506	$0	$0	$0	$0	$0	$6,275,307
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7301-453	TOLLAND	Mansfield	2121 Depot - Greenhouses	University of Connecticut - Depot		$107,015	$285,646	$58,899	$137,432	$0	$117,798	$0	$0	$0	$0	$0	$5,889,924
7301-482	TOLLAND	Mansfield	2158 Depot - Seguin Hall	University of Connecticut - Depot		$758,599	$285,646	$156,637	$365,486	$0	$313,274	$0	$0	$0	$0	$0	$15,663,677
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7301-451	TOLLAND	Mansfield	2119 Depot - Garage	University of Connecticut - Depot		$285,254	$24,014	$46,390	$108,244	$0	$92,780	$0	$0	$0	$0	$0	$4,639,019
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		Bergin Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		Bergin Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		Bergin Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		Bergin Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		Bergin Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
4122-479	TOLLAND	Mansfield	Birch House	University of Connecticut - Depot	Residence	$594,358	$285,646	$132,001	$308,001	$0	$264,001	$0	$0	$0	$0	$0	$13,200,060
7301-476	TOLLAND	Mansfield	2145 Depot - Physical Plant	University of Connecticut - Depot		$323,828	$106,371	$64,530	$150,570	$0	$129,060	$0	$0	$0	$0	$0	$6,452,985
7301-494	TOLLAND	Mansfield	2173 Depot - Wayside Cottage			$66,372	$285,646	$52,803	$123,206	$0	$105,605	$0	$0	$0	$0	$0	$5,280,272

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
7301-450	TOLLAND	Mansfield	2118 Depot - Fernside Cottage	University of Connecticut - Depot		$155,868	$285,646	$66,227	$154,530	$0	$132,454	$0	$0	$0	$0	$0	$6,622,709
	TOLLAND	Mansfield	Barn	University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
4122-114123	TOLLAND	Mansfield	1279 Stafford Road	University of Connecticut - Depot	Residence	$280,196	$285,646	$84,876	$198,045	$0	$169,753	$0	$0	$0	$0	$0	$8,487,628
7301-1177	TOLLAND	Mansfield	2184 Depot - Incinerator	University of Connecticut - Depot		$61,627	$285,646	$52,091	$121,546	$0	$104,182	$0	$0	$0	$0	$0	$5,209,098
	TOLLAND	Mansfield	Barn - Quonset Hut	University of Connecticut - Depot	Barn	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield	Barn	University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield	Barn	University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7301-1173	TOLLAND	Mansfield	2116 Depot - Farm Office Complex	University of Connecticut - Depot		$25,478	$285,646	$46,669	$108,893	$0	$93,337	$0	$0	$0	$0	$0	$4,666,856
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
8000-301	WINDHAM	Brooklyn	300 Bed Dorm & Support	Brooklyn Correctional Center	Corrections	$19,891,705	$285,646	$3,026,603	$7,062,073	$0	$6,053,205	$0	$0	$0	$0	$0	$302,660,266
3400-18	WINDHAM	Canterbury	Prudence Crandall House	Prudence Crandall Museum	Museum	$976,866	$13,323	$148,528	$346,566	$0	$297,057	$0	$0	$0	$0	$0	$14,852,834
3400-8336	WINDHAM	Canterbury	Carter House	Prudence Crandall Museum	Historic Attraction	$449,904	$285,646	$110,333	$257,443	$0	$220,665	$0	$0	$0	$0	$0	$11,033,252
3400-8337	WINDHAM	Canterbury	Carter House Barn	Prudence Crandall Museum	Storage/Warehouse	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
5000-172	WINDHAM	Canterbury	Maintenance Garage	Not Part Of A Facility	Maintenance/Repair Shop	$117,562	$163,182	$42,112	$98,260	$0	$84,223	$0	$0	$0	$0	$0	$4,211,154
2000-510	NEW LONDON	Colchester	Troop K Radio Tower	Facility Not Listed	Radio/Communications	$185,330	$222,658	$61,198	$203,994	$0	$122,397	$0	$0	$0	$0	$0	$6,119,827

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
2000-20	NEW LONDON	Colchester	Troop K Colchester	Facility Not Listed	Troop Barracks	$477,247	$549,643	$154,033	$513,445	$0	$308,067	$0	$0	$0	$0	$0	$15,403,350
2000-18	NEW LONDON	Colchester	Troop K Emergency Service Garage	Facility Not Listed	Troop Barracks	$330,870	$130,582	$69,218	$230,726	$0	$138,435	$0	$0	$0	$0	$0	$6,921,773
2000-19	NEW LONDON	Colchester	Troop K Garage	Facility Not Listed	Troop Barracks	$303,110	$46,191	$52,395	$174,651	$0	$104,790	$0	$0	$0	$0	$0	$5,239,517
2000-14	NEW LONDON	Colchester	Fleet	Facility Not Listed	Maintenance/Repair Shop	$670,238	$155,627	$123,880	$412,933	$0	$247,760	$0	$0	$0	$0	$0	$12,387,979
2000-509	NEW LONDON	Colchester	Colchester Radio Tower	Facility Not Listed	Radio/Communications	$296,258	$253,804	$82,509	$275,031	$0	$165,019	$0	$0	$0	$0	$0	$8,250,928
3100-79	NEW LONDON	Colchester	Shelter	Day Pond State Park		$28,045	$285,646	$47,054	$156,846	$0	$94,107	$0	$0	$0	$0	$0	$4,705,370
3100-77	NEW LONDON	Colchester	Dressing Rooms	Day Pond State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
3100-76	NEW LONDON	Colchester	Control Booth	Day Pond State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
4125-384126	NEW LONDON	Colchester	Colchester Gh	Not Part Of A Facility	Residence	$372,912	$10,987	$57,585	$191,949	$0	$115,170	$0	$0	$0	$0	$0	$5,758,476
4125-394126	NEW LONDON	Colchester	Joseph Lane GH	Not Part Of A Facility	Residence	$303,284	$44,897	$52,227	$174,090	$0	$104,454	$0	$0	$0	$0	$0	$5,222,705
5000-165	NEW LONDON	Colchester	Maintenance Garage	Not Part Of A Facility	Maintenance/Repair Shop	$712,326	$296,822	$151,372	$504,574	$0	$302,745	$0	$0	$0	$0	$0	$15,137,226
	NEW LONDON	Franklin				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
4125-404126	NEW LONDON	Franklin	Holton Rd.	Not Part Of A Facility	Residence	$361,798	$36,100	$59,685	$198,949	$0	$119,369	$0	$0	$0	$0	$0	$5,968,473
	TOLLAND	Mansfield		DOT Mansfield Garage and Storage		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		DOT Mansfield Garage and Storage		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
5000-521	WINDHAM	Woodstock	Salt Shed	Woodstock Salt Storage		$258,546	$285,646	$81,629	$190,467	$0	$163,258	$0	$0	$0	$0	$0	$8,162,882
5000-519	WINDHAM	Woodstock	Personnel Shelter	Woodstock Salt Storage		$41,008	$285,646	$48,998	$114,329	$0	$97,996	$0	$0	$0	$0	$0	$4,899,810
5000-776	TOLLAND	Vernon	Mobile Office Trailer	Vernon DOT Garage and Storage	Mobile Office Trailer	$5,029	$285,646	$43,601	$101,736	$0	$87,203	$0	$0	$0	$0	$0	$4,360,127
5000-508	TOLLAND	Union	Scale House	Union Weigh and Inspection Station	Weigh and Inspection Station	$285,313	$285,646	$85,644	$199,836	$0	$171,288	$0	$0	$0	$0	$0	$8,564,384
7301-1128	TOLLAND	Mansfield	0396 Shuttlebus Shelter 1-NorthWD	University of Connecticut - Storrs Campus		$16,931	$285,646	$45,387	$105,902	$0	$90,773	$0	$0	$0	$0	$0	$4,538,657
7301-1175	TOLLAND	Mansfield	2180 Depot - Athletic Field Toilet - Female	University of Connecticut - Depot		$31,163	$285,646	$47,521	$110,883	$0	$95,043	$0	$0	$0	$0	$0	$4,752,130
7301-1174	TOLLAND	Mansfield	2179 Depot - Athletic Field Toilet - Male	University of Connecticut - Depot		$31,163	$285,646	$47,521	$110,883	$0	$95,043	$0	$0	$0	$0	$0	$4,752,130

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
7301-215	TOLLAND	Mansfield	0331A Materials Science, Institute Of	University of Connecticut - Storrs Campus	Education	$22,991,589	$14,590,842	$5,637,365	$13,153,851	$0	$11,274,729	$0	$0	$0	$0	$0	$563,736,471
7301-224	TOLLAND	Mansfield	0342 Bishop Center (Cont. Ed)	University of Connecticut - Storrs Campus	Education	$6,795,106	$646,060	$1,116,175	$2,604,408	$0	$2,232,350	$0	$0	$0	$0	$0	$111,617,481
7301-248	TOLLAND	Mansfield	0369 United Technologies Eng Building	University of Connecticut - Storrs Campus	Education	$8,594,019	$2,310,843	$1,635,729	$3,816,701	$0	$3,271,458	$0	$0	$0	$0	$0	$163,572,918
7301-257	TOLLAND	Mansfield	0380 Police & Fire Complex	University of Connecticut - Storrs Campus		$3,938,320	$6,136,013	$1,511,150	$3,526,016	$0	$3,022,300	$0	$0	$0	$0	$0	$151,114,986
7301-518	TOLLAND	Mansfield	0412 Music Library	University of Connecticut - Storrs Campus	Education	$7,287,339	$535,885	$1,173,484	$2,738,128	$0	$2,346,967	$0	$0	$0	$0	$0	$117,348,363
7301-494	TOLLAND	Mansfield	2173 Depot - Wayside Cottage	University of Connecticut - Depot		$66,372	$285,646	$52,803	$123,206	$0	$105,605	$0	$0	$0	$0	$0	$5,280,272
2201-135	NEW LONDON	East Lyme	Guard Post NW Enterance	Camp Rell	Military	$3,296	$285,646	$43,341	$144,471	$0	$86,683	$0	$0	$0	$0	$0	$4,334,129
2201-143			Classroom	Camp Rell	Military	$87,519	$285,646	$55,975	$186,583	$0	$111,950	$0	$0	$0	$0	$0	$5,597,477
2201-159	NEW LONDON	East Lyme	Shower-Latrine old#51	Camp Rell	Bath House/Restrooms	$85,507	$285,646	$55,673	$185,577	$0	$111,346	$0	$0	$0	$0	$0	$5,567,299
2201-160	NEW LONDON	East Lyme	Training Support Bldg	Camp Rell	Storage/Warehouse	$85,717	$285,646	$55,705	$185,682	$0	$111,409	$0	$0	$0	$0	$0	$5,570,450
2201-166	NEW LONDON	East Lyme	Fitness Center	Camp Rell	Sports/Gymnasium	$343,774	$285,646	$94,413	$314,710	$0	$188,826	$0	$0	$0	$0	$0	$9,441,301
2201-167	NEW LONDON	East Lyme	Emergenct Operations Bldg.	Camp Rell	Military	$4,482	$285,646	$43,519	$145,064	$0	$87,038	$0	$0	$0	$0	$0	$4,351,924
2201-173	NEW LONDON	East Lyme	Task Force Husky Bldg.	Camp Rell	Military	$121,421	$285,646	$61,060	$203,534	$0	$122,120	$0	$0	$0	$0	$0	$6,106,012
2201-203	NEW LONDON	East Lyme	Post Dispensary	Camp Rell	Military	$284,377	$285,646	$85,504	$285,012	$0	$171,007	$0	$0	$0	$0	$0	$8,550,354
2201-201	NEW LONDON	East Lyme	169th Leadership Supplu /Office	Camp Rell	Storage/Warehouse	$116,309	$285,646	$60,293	$200,978	$0	$120,587	$0	$0	$0	$0	$0	$6,029,326
2201-8023	NEW LONDON	East Lyme	Warehouse/ Maint. Bldg.	Camp Rell	Storage/Warehouse	$1,081,500	$39,615	$168,167	$560,558	$0	$336,335	$0	$0	$0	$0	$0	$16,816,725
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		Bergin Correctional Institution	Storage Tank	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		Bergin Correctional Institution	Storage Tank	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		Bergin Correctional Institution	Storage Tank	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	TOLLAND	Mansfield		Bergin Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		Bergin Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		Bergin Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		Bergin Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		Bergin Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		Bergin Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		Bergin Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		Bergin Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7301-479	TOLLAND	Mansfield	2148 Depot - Plumbing Shop	University of Connecticut - Depot		$33,180	$285,646	$47,824	$111,589	$0	$95,648	$0	$0	$0	$0	$0	$4,782,390
7301-478	TOLLAND	Mansfield	2147 Depot - Pipe Storage Building	University of Connecticut - Depot		$9,471	$285,646	$44,268	$103,291	$0	$88,535	$0	$0	$0	$0	$0	$4,426,754
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7301-263	TOLLAND	Mansfield	1011 House 46	University of Connecticut - Storrs Campus	Residential	$140,544	$285,646	$63,929	$149,167	$0	$127,857	$0	$0	$0	$0	$0	$6,392,858

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		Eastern Connecticut State University - Mansfield Sports Complex		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Windham				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Franklin				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Franklin				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Franklin				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Bozrah				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Bozrah				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Plainfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Plainfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Plainfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Plainfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Plainfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Plainfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Plainfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Plainfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Killingly				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Killingly				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
3100-481	WINDHAM	Thompson	House & Garage	Quaddick State Park		$43,984	$285,646	$49,445	$115,371	$0	$98,889	$0	$0	$0	$0	$0	$4,944,454
	WINDHAM	Putnam				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Putnam				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Plainfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Plainfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Plainfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Plainfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Plainfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Plainfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Plainfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Plainfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	LITCHFIELD	Warren				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	LITCHFIELD	Kent				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	LITCHFIELD	Kent				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	LITCHFIELD	Kent				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	LITCHFIELD	Kent				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	LITCHFIELD	Kent				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	LITCHFIELD	Kent				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	New Fairfield				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	New Fairfield				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Brookfield				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Southbury				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Seymour				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Bethany				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	NEW HAVEN	Hamden				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Hamden				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Hamden				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Hamden				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Hamden				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Hamden				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Hamden				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Shelton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Milford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Milford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Newtown				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Newtown				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Newtown				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Danbury				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Danbury				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Danbury				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Danbury				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Danbury				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Danbury				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	FAIRFIELD	Danbury				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Stratford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Stratford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Stratford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Stratford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Stratford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Stratford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Stratford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Stratford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Stratford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Stratford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Bridgeport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Bridgeport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Bridgeport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Bridgeport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Bridgeport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Bridgeport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Bridgeport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Bridgeport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Bridgeport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Bridgeport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Bridgeport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Bridgeport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Bridgeport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Bridgeport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Bridgeport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Bridgeport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Bridgeport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Bridgeport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Bridgeport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Bridgeport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Bridgeport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Ridgefield				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Ridgefield				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Ridgefield				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Westport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Westport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Norwalk				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Ashford				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Ashford				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Ashford				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
3100-148	TOLLAND	Hebron	Toilet and Bath	Gay City State Park		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Glastonbury				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Glastonbury				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Glastonbury				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Glastonbury				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	MIDDLESEX	Portland				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	MIDDLESEX	Portland				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	North Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	North Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	North Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Derby				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Derby				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Derby				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Derby				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Derby				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Derby				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Shelton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Shelton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	FAIRFIELD	Shelton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Southbury				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Oxford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	LITCHFIELD	Cornwall				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	LITCHFIELD	Cornwall				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	LITCHFIELD	Cornwall				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Thompson	Thompson Radio Tower Support Building	Thompson Radio Tower	Communications	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Tolland	Pump Station	Troop C	Fuel	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Hebron	Meetings Building	Gay City State Park		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Hebron		Gay City State Park		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Hebron		Gay City State Park		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
4122-154123	TOLLAND	Columbia	Deer Hill	DDS - Deer Hill		$293,367	$285,646	$86,852	$202,655	$0	$173,704	$0	$0	$0	$0	$0	$8,685,196
4122-144123	TOLLAND	Columbia	Scalise Drive	DDS - Scalise Drive	Residential	$409,124	$285,646	$104,215	$243,169	$0	$208,431	$0	$0	$0	$0	$0	$10,421,546
	TOLLAND	Columbia	Barn	DDS - Scalise Drive	Out Building	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
5000-806	TOLLAND	Andover	Bus Shelter	DOT Andover Park & Ride	Bus Shelter	$8,819	$285,646	$44,170	$103,063	$0	$88,339	$0	$0	$0	$0	$0	$4,416,971
5000-544	TOLLAND	Columbia	Bus Shelter		Bus Shelter	$2,753	$285,646	$43,260	$100,940	$0	$86,520	$0	$0	$0	$0	$0	$4,325,988
	TOLLAND	Coventry	Cabin	Nathan Hale State Forest	Cabin	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Coventry	Cabin	Nathan Hale State Forest	Cabin	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	TOLLAND	Mansfield	Shed	University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield	Barn	University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
7301-267	TOLLAND	Mansfield	1016 House 44	University of Connecticut - Storrs Campus	Residential	$67,407	$285,646	$52,958	$123,568	$0	$105,916	$0	$0	$0	$0	$0	$5,295,791
7301-268	TOLLAND	Mansfield	1017 House 45	University of Connecticut - Storrs Campus	Residential	$992	$285,646	$42,996	$100,323	$0	$85,991	$0	$0	$0	$0	$0	$4,299,569
	NEW LONDON	Griswold		Griswold Research Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Griswold		Griswold Research Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Griswold		Griswold Research Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Griswold		Griswold Research Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Griswold		Griswold Research Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Griswold		Griswold Research Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW LONDON	Griswold		Griswold Research Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
4125-24125	NEW HAVEN	Meriden	Camp St Group Home	Camp Street Group Home	Residence	$396,612	$285,646	$102,339	$341,129	$0	$204,677	$0	$0	$0	$0	$0	$10,233,869
				Waterbury-Oxford Airport		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
5000-127	NEW LONDON	North Stonington	Rest Area And Information Center	DOT North Stonington Rest Center	Visitors Center	$1,531,619	$285,646	$272,590	$908,633	$0	$545,180	$0	$0	$0	$0	$0	$27,258,979
5000-778			Storage Shed		Storage Shed	$6,412	$285,646	$43,809	$102,220	$0	$87,618	$0	$0	$0	$0	$0	$4,380,875
	LITCHFIELD	Torrington				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	LITCHFIELD	Torrington				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	LITCHFIELD	Torrington				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Madison				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Madison				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Madison				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	MIDDLESEX	Westbrook				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	MIDDLESEX	Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
	WINDHAM	Killingly				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$0	$39,106,849
8000-105	HARTFORD	Enfield	Housing Unit #3	Enfield Correctional Institution		$1,207,285	$11,893	$182,877	$426,712	$365,754	$365,754	$0	$0	$0	$0	$0	$18,287,677
8000-106	HARTFORD	Enfield	Housing Unit #4	Enfield Correctional Institution		$1,207,285	$11,944	$182,884	$426,730	$365,769	$365,769	$0	$0	$0	$0	$0	$18,288,443
8000-107	HARTFORD	Enfield	Housing Unit #5	Enfield Correctional Institution		$1,207,285	$11,921	$182,881	$426,722	$365,762	$365,762	$0	$0	$0	$0	$0	$18,288,095
8000-108	HARTFORD	Enfield	Housing Unit #6	Enfield Correctional Institution		$1,207,285	$11,362	$182,797	$426,527	$365,594	$365,594	$0	$0	$0	$0	$0	$18,279,712
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Suffield		MacDougall-Walker Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Suffield		MacDougall-Walker Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Suffield		MacDougall-Walker Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Suffield		MacDougall-Walker Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Suffield		MacDougall-Walker Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Suffield		MacDougall-Walker Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Suffield		MacDougall-Walker		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
				Correctional Institution													
	HARTFORD	Suffield		MacDougall-Walker Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Suffield		MacDougall-Walker Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Suffield		MacDougall-Walker Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Enfield		Armory		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Enfield		Department of Transportation		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
3400-4	HARTFORD	East Granby	Guardhouse	Old Newgate Prison		$253,240	$285,646	$80,833	$188,610	$161,666	$161,666	$0	$0	$0	$0	$0	$8,083,291
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Windsor Locks		Department of Transportation		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
2201-108	HARTFORD	Windsor Locks	Storage/Fitness Center/Frame Shop			$212,606	$285,646	$74,738	$174,388	$149,476	$149,476	$0	$0	$0	$0	$0	$7,473,788
5000-77	HARTFORD	Windsor	Maintenance Garage			$2,334,975	$333,129	$400,216	$933,836	$800,431	$800,431	$0	$0	$0	$0	$0	$40,021,555
3601-11	HARTFORD	Windsor	Valley Laboratory			$921,102	$202,551	$168,548	$393,278	$337,096	$337,096	$0	$0	$0	$0	$0	$16,854,788
3601-13	HARTFORD	Windsor	Pesticide Shed			$13,815	$285,646	$44,919	$104,811	$89,838	$89,838	$0	$0	$0	$0	$0	$4,491,914
	HARTFORD	Windsor				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
8102-7348	HARTFORD	East Windsor	Maintenance Storage Building	State Receiving Home		$393,391	$285,646	$101,856	$237,663	$203,711	$203,711	$0	$0	$0	$0	$0	$10,185,557
	HARTFORD	East Windsor		Department of Transportation		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
7001-10	NEW HAVEN	Waterbury	Warren F. Kaynor Regional Vocational Technical School	Warren F. Kaynor Technical High School		$40,109,555	$2,210,717	$6,348,041	$21,160,136	$12,696,082	$12,696,082	$0	$0	$0	$0	$0	$634,804,082
7301-7233	NEW HAVEN	Waterbury	University of Connecticut-Waterbury Branch	UCONN WATERBURY BRANCH		$25,417,081	$1,544,223	$4,044,196	$13,480,652	$8,088,391	$8,088,391	$0	$0	$0	$0	$0	$404,419,568
7701-37	NEW HAVEN	Waterbury	Phase II (A, S, & L Buildings)	Naugatuck Valley Community College		$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Enfield				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Enfield				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Enfield				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Enfield				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
4101-139	NEW HAVEN	Southbury	Transformer Vault	Southbury Training School		$9,658	$285,646	$44,296	$147,652	$88,591	$88,591	$0	$0	$0	$0	$0	$4,429,566
4101-44	NEW HAVEN	Southbury	Cottage 35	Southbury Training School		$690,435	$285,646	$146,412	$488,041	$292,824	$292,824	$0	$0	$0	$0	$0	$14,641,219
4101-41	NEW HAVEN	Southbury	Cottage 32	Southbury Training School		$302,773	$285,646	$88,263	$294,210	$176,526	$176,526	$0	$0	$0	$0	$0	$8,826,288
4101-30	NEW HAVEN	Southbury	Cottage 21	Southbury Training School		$355,140	$285,646	$96,118	$320,393	$192,236	$192,236	$0	$0	$0	$0	$0	$9,611,789
4101-49	NEW HAVEN	Southbury	Cottage Farm I	Southbury Training School		$487,756	$285,646	$116,010	$386,701	$232,021	$232,021	$0	$0	$0	$0	$0	$11,601,036
4101-10	NEW HAVEN	Southbury	Cassidy Barn	Southbury Training School		$29,618	$285,646	$47,290	$157,632	$94,579	$94,579	$0	$0	$0	$0	$0	$4,728,969
4101-114	NEW HAVEN	Southbury	Range Shelters	Southbury Training School		$27,165	$285,646	$46,922	$156,405	$93,843	$93,843	$0	$0	$0	$0	$0	$4,692,162
4101-51	NEW HAVEN	Southbury	Garage for Staff House 6 & 8	Southbury Training School		$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
4101-46	NEW HAVEN	Southbury	Cottage 41	Southbury Training School		$699,037	$285,646	$147,703	$492,342	$295,405	$295,405	$0	$0	$0	$0	$0	$14,770,253
4101-45	NEW HAVEN	Southbury	Cottage 40	Southbury Training School		$699,037	$285,646	$147,703	$492,342	$295,405	$295,405	$0	$0	$0	$0	$0	$14,770,253
4101-120	NEW HAVEN	Southbury	Drying Building	Southbury Training School		$29,428	$285,646	$47,261	$157,537	$94,522	$94,522	$0	$0	$0	$0	$0	$4,726,112
4101-119	NEW HAVEN	Southbury	SP Digester Bldg	Southbury Training School		$48,821	$285,646	$50,170	$167,234	$100,340	$100,340	$0	$0	$0	$0	$0	$5,017,011
4101-118	NEW HAVEN	Southbury	Roselle School	Southbury Training School		$3,156,910	$285,646	$516,383	$1,721,278	$1,032,767	$1,032,767	$0	$0	$0	$0	$0	$51,638,341
4101-8	NEW HAVEN	Southbury	Bobwick Pavillion	Southbury Training School		$166,006	$285,646	$67,748	$225,826	$135,496	$135,496	$0	$0	$0	$0	$0	$6,774,788
4101-21	NEW HAVEN	Southbury	Cottage 10	Southbury Training School		$355,140	$285,646	$96,118	$320,393	$192,236	$192,236	$0	$0	$0	$0	$0	$9,611,789
4101-11	NEW HAVEN	Southbury	Cottage 1	Southbury Training School		$355,140	$285,646	$96,118	$320,393	$192,236	$192,236	$0	$0	$0	$0	$0	$9,611,789
4101-13	NEW HAVEN	Southbury	Cottage 3	Southbury Training School		$265,421	$285,646	$82,660	$275,534	$165,320	$165,320	$0	$0	$0	$0	$0	$8,266,009

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
4101-7	NEW HAVEN	Southbury	Administration Building	Southbury Training School		$924,881	$285,646	$181,579	$605,264	$363,158	$363,158	$0	$0	$0	$0	$0	$18,157,909
4101-109	NEW HAVEN	Southbury	Pump House	Southbury Training School		$20,562	$285,646	$45,931	$153,104	$91,862	$91,862	$0	$0	$0	$0	$0	$4,593,118
4101-135	NEW HAVEN	Southbury	Staff House Apt. 80/81/82	Southbury Training School		$43,614	$285,646	$49,389	$164,630	$98,778	$98,778	$0	$0	$0	$0	$0	$4,938,903
4101-124	NEW HAVEN	Southbury	Sheltered Workshop (Boys' It)	Southbury Training School		$433,917	$285,646	$107,934	$359,782	$215,869	$215,869	$0	$0	$0	$0	$0	$10,793,448
7701-39	NEW HAVEN	Waterbury	Elkstrom Hall			$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
7701-36	NEW HAVEN	Waterbury	Kinney Hall			$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
7001-101	NEW HAVEN	Waterbury	Garage/Service Bldg.			$169,596	$285,646	$68,286	$227,621	$136,573	$136,573	$0	$0	$0	$0	$0	$6,828,628
8102-7966	HARTFORD	East Windsor	Generator House			$500,000	$285,646	$117,847	$274,976	$235,694	$235,694	$0	$0	$0	$0	$0	$11,784,692
7001-3	HARTFORD	Bristol	Bristol Technical Education Center			$8,749,552	$1,304,211	$1,508,064	$3,518,817	$3,016,129	$3,016,129	$0	$0	$0	$0	$0	$150,806,433
4122-294122	HARTFORD	South Windsor	310 Beezlebub Road			$198,641	$285,646	$72,643	$169,500	$145,286	$145,286	$0	$0	$0	$0	$0	$7,264,302
2201-105	HARTFORD	Windsor Locks				$379,754	$285,646	$99,810	$232,890	$199,620	$199,620	$0	$0	$0	$0	$0	$9,981,001
2201-119	HARTFORD	Windsor Locks	Administration			$76,109	$285,646	$54,263	$126,614	$108,527	$108,527	$0	$0	$0	$0	$0	$5,426,326
8000-154	TOLLAND	Somers	Cybulski Correctional Institution	Osborn Correctional Institution		$11,423,871	$586,494	$1,801,555	$4,203,628	$3,603,110	$3,603,110	$0	$0	$0	$0	$0	$180,155,484
8000-136	TOLLAND	Somers	Staff House 5	Osborn Correctional Institution	Residential	$124,974	$67,222	$28,830	$67,269	$57,659	$57,659	$0	$0	$0	$0	$0	$2,882,950
8000-135	TOLLAND	Somers	Staff House 6	Osborn Correctional Institution	Residential	$114,915	$26,047	$21,144	$49,337	$42,289	$42,289	$0	$0	$0	$0	$0	$2,114,442
8000-133	TOLLAND	Somers	Staff House 7	Osborn Correctional Institution	Residential	$124,495	$143,586	$40,212	$93,828	$80,424	$80,424	$0	$0	$0	$0	$0	$4,021,215
8000-134	TOLLAND	Somers	Staff House 8	Osborn Correctional Institution	Residential	$122,118	$256,576	$56,804	$132,543	$113,608	$113,608	$0	$0	$0	$0	$0	$5,680,421
	TOLLAND	Somers	Osborn Correctional	Osborn Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
8000-495	TOLLAND	Somers	Northern Correctional Institution	Osborn Correctional Institution		$34,781,030	$700,601	$5,322,245	$12,418,571	$10,644,489	$10,644,489	$0	$0	$0	$0	$0	$532,224,456
9001-32	TOLLAND	Vernon	Tolland Criminal Court Complex	GA 19 at Rockville	Court	$23,183,383	$248,659	$3,514,806	$8,201,215	$7,029,613	$7,029,613	$0	$0	$0	$0	$0	$351,480,637
9001-7102	TOLLAND	Vernon	GA19 Parking Garage	GA 19 at Rockville	Garage	$2,414,074	$2,500	$362,486	$845,801	$724,972	$724,972	$0	$0	$0	$0	$0	$36,248,612

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	NEW HAVEN	Southbury				$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Oxford		Waterbury-Oxford Airport		$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Oxford	Airport Management/ARFF/Maintenance	Waterbury-Oxford Airport		$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Suffield				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Suffield				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Suffield				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Suffield				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Suffield				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Stafford		Shenipsit State Forest		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
3100-572	TOLLAND	Stafford	Rangers Headquarters House	Shenipsit State Forest		$65,023	$285,646	$52,600	$122,734	$105,201	$105,201	$0	$0	$0	$0	$0	$5,260,030
	TOLLAND	Stafford		Shenipsit State Forest	Storage	$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Somers	Soapstone MT Radio Tower Support Building	Shenipsit State Forest	Communications	$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
2000-489	TOLLAND	Somers	Soapstone MT Radio Tower	Shenipsit State Forest	Communications	$296,258	$285,646	$87,286	$203,666	$174,571	$174,571	$0	$0	$0	$0	$0	$8,728,560
	HARTFORD	East Windsor				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	HARTFORD	East Windsor				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
3100-577	TOLLAND	Stafford	Oil Shed	Shenipsit State Forest	Shed	$4,303	$285,646	$43,492	$101,482	$86,985	$86,985	$0	$0	$0	$0	$0	$4,349,243
3100-579	TOLLAND	Somers	Observation Tower	Shenipsit State Forest	Tower	$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Somers	Water Tank	Osborn Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Somers		Osborn Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	TOLLAND	Somers		Osborn Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
	NEW HAVEN	Oxford		Waterbury-Oxford Airport		$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	NEW HAVEN	Oxford		Waterbury-Oxford Airport		$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$0	$0	$0	$0	$39,106,849
(none)	NEW HAVEN	New Haven	Ethnic Heritage Center	Southern Connecticut State University	Building No.17, Education	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
(none)	NEW HAVEN	New Haven	Ethnic Heritage Center	Southern Connecticut State University	Building No. 17, Education	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
(none)	NEW HAVEN	New Haven		Southern Connecticut State University	Guard Shack	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
(none)	FAIRFIELD	Danbury		Henry Abbott Technical High School		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
(none)	WINDHAM	Killingly		H.H. Ellis Technical High School	Sports/Gymnasium	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
7802-34	HARTFORD	New Britain	Grounds Building	Central Connecticut State University	Building No. 34, Facilities Management	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
1326-507	NEW LONDON	Waterford	Superintendent's House	Seaside Regional Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
7301-116	TOLLAND	Mansfield	0193 Mansfield Apartments Building 17 (6 Units)	University of Connecticut - Storrs Campus	Residence	$779,335	$1,119	$117,068	$273,159	$0	$234,136	$273,159	$0	$0	$0	$0	$11,706,817
7301-102	TOLLAND	Mansfield	0179 Mansfield Apartments Building 02 (4 Units)	University of Connecticut - Storrs Campus	Residence	$599,383	$15,922	$92,296	$215,357	$0	$184,591	$215,357	$0	$0	$0	$0	$9,229,574
7301-103	TOLLAND	Mansfield	0180 Mansfield Apartments Building 03 (6 Units)	University of Connecticut - Storrs Campus	Residence	$780,173	$285,646	$159,873	$373,037	$0	$319,746	$373,037	$0	$0	$0	$0	$15,987,280
7301-117	TOLLAND	Mansfield	0194 Sewage Sta 3-Mansfield Apt	University of Connecticut - Storrs Campus	Residence	$16,109	$285,646	$45,263	$105,614	$0	$90,527	$105,614	$0	$0	$0	$0	$4,526,331
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
7301-245	TOLLAND	Mansfield	0365 School Of Fine Arts	University of Connecticut - Storrs Campus	Education	$5,332,907	$798,975	$919,782	$2,146,159	$0	$1,839,565	$2,146,159	$0	$0	$0	$0	$91,978,230
7301-223	TOLLAND	Mansfield	0341 Human Development Center	University of Connecticut - Storrs Campus	Education	$4,873,252	$227,221	$765,071	$1,785,165	$0	$1,530,142	$1,785,165	$0	$0	$0	$0	$76,507,084

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
7301-214	TOLLAND	Mansfield	0330 Phillips, DC Building (Communic Sci)	University of Connecticut - Storrs Campus	Education	$4,969,871	$998,077	$895,192	$2,088,782	$0	$1,790,384	$2,088,782	$0	$0	$0	$0	$89,519,210
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
7301-213	TOLLAND	Mansfield	0329 Ryan Refec (Alum Dining Hl)	University of Connecticut - Storrs Campus	Residence	$7,685,923	$526,437	$1,231,854	$2,874,326	$0	$2,463,708	$2,874,326	$0	$0	$0	$0	$123,185,402
7301-209	TOLLAND	Mansfield	0325 Watson Hall, Alum Quad 1	University of Connecticut - Storrs Campus	Residence	$8,252,916	$29,151	$1,242,310	$2,898,724	$0	$2,484,620	$2,898,724	$0	$0	$0	$0	$124,231,015
7301-210	TOLLAND	Mansfield	0326 Belden Hall, Alum Quad 2	University of Connecticut - Storrs Campus	Residence	$8,168,244	$27,366	$1,229,342	$2,868,464	$0	$2,458,683	$2,868,464	$0	$0	$0	$0	$122,934,151
7301-212	TOLLAND	Mansfield	0328 Brock Hall, Alum Quad 4	University of Connecticut - Storrs Campus	Residence	$7,938,028	$25,298	$1,194,499	$2,787,164	$0	$2,388,998	$2,787,164	$0	$0	$0	$0	$119,449,880
7301-9	TOLLAND	Mansfield	0011 House 12	University of Connecticut - Storrs Campus	Education	$209,415	$36,747	$36,924	$86,157	$0	$73,849	$86,157	$0	$0	$0	$0	$3,692,436
7301-11	TOLLAND	Mansfield	0013 House 13	University of Connecticut - Storrs Campus	Office	$104,334	$37,747	$21,312	$49,728	$0	$42,624	$49,728	$0	$0	$0	$0	$2,131,212
7301-15	TOLLAND	Mansfield	0017 House 25	University of Connecticut - Storrs Campus	Office	$67,600	$285,646	$52,987	$123,636	$0	$105,974	$123,636	$0	$0	$0	$0	$5,298,695
7301-16	TOLLAND	Mansfield	0019 House 22	University of Connecticut - Storrs Campus	Office	$162,310	$1,789	$24,615	$57,435	$0	$49,230	$57,435	$0	$0	$0	$0	$2,461,489
7301-142	TOLLAND	Mansfield	0225 Hook Hall (A,B) W.C. 3	University of Connecticut - Storrs Campus		$2,136,812	$32,986	$325,470	$759,429	$0	$650,939	$759,429	$0	$0	$0	$0	$32,546,969
7301-143	TOLLAND	Mansfield	0226 Spencer Hall (A,B) W.C. 4	University of Connecticut - Storrs Campus		$2,232,056	$29,255	$339,197	$791,459	$0	$678,393	$791,459	$0	$0	$0	$0	$33,919,656
7301-140	TOLLAND	Mansfield	0223 Alsop Hall (A,B) W.C. 1	University of Connecticut - Storrs Campus		$3,434,124	$98,414	$529,881	$1,236,388	$0	$1,059,761	$1,236,388	$0	$0	$0	$0	$52,988,070
7301-19	TOLLAND	Mansfield	0025 House 23	University of Connecticut - Storrs Campus	Office	$373,595	$4,405	$56,700	$132,300	$0	$113,400	$132,300	$0	$0	$0	$0	$5,670,007
7301-7183	TOLLAND	Mansfield	0414 School of Business	University of Connecticut - Storrs Campus	Education	$25,051,163	$2,305,798	$4,103,544	$9,574,936	$0	$8,207,088	$9,574,936	$0	$0	$0	$0	$410,354,416
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus	Barn	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$0	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus	Barn	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
7301-38	TOLLAND	Mansfield	0051 Rosebrooks Barn / Silo	University of Connecticut - Storrs Campus	Other	$118,436	$22,988	$21,214	$49,499	$0	$42,427	$49,499	$0	$0	$0	$0	$2,121,366
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
8102-7967	HARTFORD	East Windsor	Willow Hall Storage	State Receiving Home		$12,000	$285,646	$44,647	$104,176	$89,294	$89,294	$104,176	$0	$0	$0	$0	$4,464,692
8102-74	HARTFORD	East Windsor	White House/ Brick House	State Receiving Home		$23,105	$285,646	$46,313	$108,063	$92,625	$92,625	$108,063	$0	$0	$0	$0	$4,631,267
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
	HARTFORD	Suffield				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
	HARTFORD	Suffield				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
	HARTFORD	Suffield				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
	HARTFORD	Suffield				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
	HARTFORD	Suffield				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
	HARTFORD	Suffield				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$0	$0	$0	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$0	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
1326-506	NEW LONDON	Waterford	Maintenance Building No. 1	Seaside Regional Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$2,607,123	$0	$0	$0	$39,106,849
	HARTFORD	Suffield		MacDougall-Walker Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$2,607,123	$0	$0	$0	$39,106,849
7701-7106	NEW HAVEN	Waterbury	Technology Building	Naugatuck Valley Community College		$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$2,607,123	$0	$0	$0	$39,106,849
	TOLLAND	Somers		Osborn Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$2,607,123	$0	$0	$0	$39,106,849
8000-17	TOLLAND	Somers	Boiler House R	Osborn Correctional Institution		$2,071,846	$185,793	$338,646	$790,173	$677,291	$677,291	$0	$2,257,638	$0	$0	$0	$33,864,573
	TOLLAND	Somers	Water Storage Tanks	Osborn Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$2,607,123	$0	$0	$0	$39,106,849
	TOLLAND	Somers	Water Storage Tanks	Osborn Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$2,607,123	$0	$0	$0	$39,106,849
8000-15	TOLLAND	Somers	Somers Vehicle Maintenance Facility	Osborn Correctional Institution		$338,870	$50,661	$58,430	$136,336	$116,859	$116,859	$0	$389,531	$0	$0	$0	$5,842,960
	TOLLAND	Somers		Osborn Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$2,607,123	$0	$0	$0	$39,106,849
	TOLLAND	Somers		Osborn Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$2,607,123	$0	$0	$0	$39,106,849
4122-194123	TOLLAND	Ellington	Residence		Residential	$307,559	$8,765	$47,449	$110,713	$94,897	$94,897	$0	$316,324	$0	$0	$0	$4,744,857
	NEW HAVEN	Oxford	Keystone Hanger & FBO	Waterbury-Oxford Airport		$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$2,607,123	$0	$0	$0	$39,106,849
	NEW HAVEN	Oxford	Keystone Hangers C, D, E	Waterbury-Oxford Airport		$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$2,607,123	$0	$0	$0	$39,106,849
(none)	NEW LONDON	Norwich		Norwich Technical High School	Shed	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$2,607,123	$0	$39,106,849
7803-2444	FAIRFIELD	Danbury	Berkshire Hall	Western Connecticut State University - Midtown Campus	Academics/Athletics/Recreation	$3,561,577	$489,289	$607,630	$2,025,433	$0	$1,215,260	$0	$0	$0	$4,050,867	$0	$60,763,000
7803-7647	FAIRFIELD	Danbury	Richa Property	Western Connecticut State University - Midtown Campus	Residence	$547,150	$285,646	$124,919	$416,398	$0	$249,839	$0	$0	$0	$832,796	$0	$12,491,942

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
7803-8444	FAIRFIELD	Danbury	Higgins Annex	Western Connecticut State University - Midtown Campus	Academics	$2,321,477	$39,478	$354,143	$1,180,477	$0	$708,286	$0	$0	$0	$2,360,955	$0	$35,414,323
7803-10444	FAIRFIELD	Danbury	Litchfield Hall	Western Connecticut State University - Midtown Campus	Student Life	$3,622,073	$67,845	$553,488	$1,844,959	$0	$1,106,975	$0	$0	$0	$3,689,918	$0	$55,348,763
	FAIRFIELD	Newtown		Garner Correctional Institution		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$2,607,123	$0	$39,106,849
	FAIRFIELD	Newtown		Garner Correctional Institution		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$2,607,123	$0	$39,106,849
	LITCHFIELD	Torrington	Former Timken Corporate HQ	Proposed Torrington Courthouse		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$2,607,123	$0	$39,106,849
1326-479	HARTFORD	Windsor	DEP	DEP Testing Labs		$1,686,511	$167,118	$278,044	$648,770	$0	$556,089	$0	$0	$0	$1,853,629	$0	$27,804,442
	HARTFORD	Simsbury		Range		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$2,607,123	$0	$39,106,849
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$2,607,123	$0	$39,106,849
7301-7195	TOLLAND	Mansfield	0450 Bethune Hall, Hilltop Apt. 17	University of Connecticut - Storrs Campus	Residence	$2,294,289	$7,279	$345,235	$805,549	$0	$690,470	$0	$0	$0	$2,301,568	$0	$34,523,517
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$2,607,123	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$2,607,123	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$2,607,123	$0	$39,106,849
2201-144	NEW LONDON	East Lyme	Latrine	Camp Rell	Bath House/Restrooms	$17,081	$285,646	$45,409	$151,363	$0	$90,818	$0	$0	$0	$302,727	$0	$4,540,902
4101-73	NEW HAVEN	Southbury	Master Antenna Building	Southbury Training School		$4,904	$285,646	$43,583	$145,275	$87,165	$87,165	$0	$0	$0	$290,550	$0	$4,358,257
7701-47	NEW HAVEN	Waterbury	Founders Hall WSTC Hall Annex			$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$0	$0	$2,607,123	$0	$39,106,849
	HARTFORD	Suffield				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$2,607,123	$0	$39,106,849
	HARTFORD	Suffield				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$2,607,123	$0	$39,106,849
(none)	NEW HAVEN	New Haven		Southern Connecticut State University	Concession Building	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7804-34	NEW HAVEN	New Haven	University Police and Granoff Student Health Center	Southern Connecticut	Building No. 28, Education	$2,244,067	$548,800	$418,930	$1,396,434	$0	$837,860	$0	$0	$558,573	$0	$0	$41,893,012

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
				State University													
7804-4871	NEW HAVEN	New Haven	Temporary Building TE4	Southern Connecticut State University	Building No. 29, Education	$4,575,475	$1,972,660	$982,220	$3,274,067	$0	$1,964,440	$0	$0	$1,309,627	$0	$0	$98,222,023
(none)	NEW HAVEN	New Haven		Southern Connecticut State University	Guard Shack	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7804-3	NEW HAVEN	New Haven	Temporary Building TE5	Southern Connecticut State University	Building No. 29, Education	$273,571	$99,220	$55,919	$186,395	$0	$111,837	$0	$0	$74,558	$0	$0	$5,591,862
7804-4868	NEW HAVEN	New Haven	Admissions House	Southern Connecticut State University	Building No. 18, Office	$446,832	$38,559	$72,809	$242,696	$0	$145,617	$0	$0	$97,078	$0	$0	$7,280,866
(none)	NEW HAVEN	New Haven		Southern Connecticut State University	Guard Shack	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7804-14	NEW HAVEN	New Haven	Schwartz Hall	Southern Connecticut State University	Building No. 16, Residence Hall and Housing Office	$17,441,866	$701,220	$2,721,463	$9,071,543	$0	$5,442,926	$0	$0	$3,628,617	$0	$0	$272,146,292
(none)	NEW HAVEN	New Haven		Southern Connecticut State University	Softball Field Structure	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7804-10	NEW HAVEN	New Haven	Pelz Gymnasium	Southern Connecticut State University	Building No. 4, Sports/Gymnasium	$8,469,914	$374,119	$1,326,605	$4,422,016	$0	$2,653,210	$0	$0	$1,768,807	$0	$0	$132,660,490
7804-20	NEW HAVEN	New Haven	Davis Hall	Southern Connecticut State University	Building No. 3, Education	$9,227,480	$1,110,764	$1,550,737	$5,169,122	$0	$3,101,473	$0	$0	$2,067,649	$0	$0	$155,073,664
7804-13	NEW HAVEN	New Haven	Hickerson Hall	Southern Connecticut State University	Building No. 25, Residence	$10,407,888	$151,116	$1,583,851	$5,279,502	$0	$3,167,701	$0	$0	$2,111,801	$0	$0	$158,385,056
7804-27	NEW HAVEN	New Haven	Buley Library	Southern Connecticut State University	Building No. 11, Education	$15,880,860	$20,745,695	$5,493,983	$18,313,278	$0	$10,987,967	$0	$0	$7,325,311	$0	$0	$549,398,331
7804-24	NEW HAVEN	New Haven	Student Center	Southern Connecticut State University	Building No. 9, Education	$6,276,278	$395,629	$1,000,786	$3,335,954	$0	$2,001,572	$0	$0	$1,334,381	$0	$0	$100,078,610
7804-7119	NEW HAVEN	New Haven	Bookstore	Southern Connecticut State University	Education	$254,620	$285,646	$81,040	$270,133	$0	$162,080	$0	$0	$108,053	$0	$0	$8,103,990

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
(none)	NEW HAVEN	New Haven	Wintergreen Building	Southern Connecticut State University	Building No. 32, Education	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
(none)	NEW HAVEN	New Haven		Southern Connecticut State University	Guard Shack	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7804-16	NEW HAVEN	New Haven	Moore Fieldhouse	Southern Connecticut State University	Building No. 31, Sports/Gymnasium	$19,141,360	$773,887	$2,987,287	$9,957,624	$0	$5,974,574	$0	$0	$3,983,049	$0	$0	$298,728,710
7804-38	NEW HAVEN	Hamden	North Campus Residence Complex - Townhouse C	Southern Connecticut State University	Building No. 34, Residence	$852,460	$7,235	$128,954	$429,848	$0	$257,909	$0	$0	$171,939	$0	$0	$12,895,427
7804-23	NEW HAVEN	New Haven	Lang Social Work House	Southern Connecticut State University	Building No. 19, Education	$713,347	$129,347	$126,404	$421,347	$0	$252,808	$0	$0	$168,539	$0	$0	$12,640,408
7804-40	NEW HAVEN	New Haven	Connecticut Hall	Southern Connecticut State University	Building No. 15, Food Service	$11,228,090	$318,584	$1,732,001	$5,773,337	$0	$3,464,002	$0	$0	$2,309,335	$0	$0	$173,200,116
7804-28	NEW HAVEN	New Haven	Earl Hall	Southern Connecticut State University	Building No. 13, Education	$7,298,744	$1,066,690	$1,254,815	$4,182,717	$0	$2,509,630	$0	$0	$1,673,087	$0	$0	$125,481,517
7804-29	NEW HAVEN	New Haven	Seabury Hall	Southern Connecticut State University	Building No. 8, Education	$2,112,335	$209,639	$348,296	$1,160,987	$0	$696,592	$0	$0	$464,395	$0	$0	$34,829,606
7804-25	NEW HAVEN	New Haven	Jennings Hall	Southern Connecticut State University	Building No. 6, Education	$18,845,467	$5,929,757	$3,716,284	$12,387,612	$0	$7,432,567	$0	$0	$4,955,045	$0	$0	$371,628,353
(none)	NEW HAVEN	New Haven		Southern Connecticut State University	Green House	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7804-7105	NEW HAVEN	New Haven	Temporary Building TE6	Southern Connecticut State University	Building No. 29, Office	$472,790	$131,297	$90,613	$302,043	$0	$181,226	$0	$0	$120,817	$0	$0	$9,061,302
(unknown)	NEW HAVEN	New Haven		Southern Connecticut State University	(demolished)	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
(unknown)	NEW HAVEN	New Haven		Southern Connecticut State University	(demolished)	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
(unknown)	NEW HAVEN	New Haven		Southern Connecticut	(demolished)	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
				State University													
(unknown)	NEW HAVEN	New Haven		Southern Connecticut State University	(demolished)	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
(none)	WINDHAM	Windham		Eastern Connecticut State University	Garage	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
(unknown)	WINDHAM	Windham		Eastern Connecticut State University	?	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
(unknown)	WINDHAM	Windham		Eastern Connecticut State University	?	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7805-7824	WINDHAM	Windham	372 High Street	Eastern Connecticut State University	Building No. 47	$2,321,477	$15,550	$350,554	$817,959	$0	$701,108	$0	$0	$467,405	$0	$0	$35,055,407
7805-482	WINDHAM	Windham	Niejadlik Hall	Eastern Connecticut State University	Building No. 37	$7,968,683	$68,853	$1,205,630	$2,813,137	$0	$2,411,261	$0	$0	$1,607,507	$0	$0	$120,563,033
7805-9	WINDHAM	Windham	Hurley Hall/Dining Services	Eastern Connecticut State University	Building No. 40	$8,282,015	$575,355	$1,328,606	$3,100,080	$0	$2,657,211	$0	$0	$1,771,474	$0	$0	$132,860,554
7805-5367	WINDHAM	Windham	Noble Hall	Eastern Connecticut State University	Building No. 1	$13,852,249	$42,830	$2,084,262	$4,863,278	$0	$4,168,524	$0	$0	$2,779,016	$0	$0	$208,426,184
7805-5380	WINDHAM	Windham	Greenhouse	Eastern Connecticut State University	Building No. 6	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7001-5	WINDHAM	Killingly	Main Campus Building	H.H. Ellis Technical High School	Education	$24,142,738	$3,456,571	$4,139,896	$9,659,758	$0	$8,279,793	$0	$0	$5,519,862	$0	$0	$413,989,635
(none)	WINDHAM	Killingly	Service Garage	H.H. Ellis Technical High School	Maintenance/Repair Shop	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
(none)	WINDHAM	Killingly		H.H. Ellis Technical High School	Shed	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
(none)	WINDHAM	Killingly		H.H. Ellis Technical High School	Softball Field Structure	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
(none)	WINDHAM	Killingly		H.H. Ellis Technical High School	Softball Field Structure	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
7001-13	FAIRFIELD	Stamford	Main Campus Building	J.M. Wright Technical High School	Education	$33,091,763	$1,425,399	$5,177,574	$17,258,581	$0	$10,355,148	$0	$0	$6,903,432	$0	$0	$517,757,420
7001-131	FAIRFIELD	Stamford	Service Garage	J.M. Wright Technical High School	Maintenance/Repair Shop	$68,196	$285,646	$53,076	$176,921	$0	$106,153	$0	$0	$70,768	$0	$0	$5,307,630
(none)	FAIRFIELD	Stamford		J.M. Wright Technical High School	Shed	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
4400-339	NEW HAVEN	New Haven		Connecticut Mental Health Center	Hospital	$24,485,849	$1,371,827	$3,878,651	$12,928,838	$0	$7,757,303	$0	$0	$5,171,535	$0	$0	$387,865,135
7001-141	NEW LONDON	Norwich	Service Garage	Norwich Technical High School	Maintenance/Repair Shop	$45,778	$285,646	$49,714	$165,712	$0	$99,427	$0	$0	$66,285	$0	$0	$4,971,356
1326-536	NEW LONDON	Norwich	Warehouse	Uncas-on-Thames Hospital	Building No. 8	$439,226	$285,646	$108,731	$362,436	$0	$217,462	$0	$0	$144,974	$0	$0	$10,873,082
1326-553	NEW LONDON	Norwich	Allis	Uncas-on-Thames Hospital	Building No. 5	$1,106,711	$285,646	$208,853	$696,178	$0	$417,707	$0	$0	$278,471	$0	$0	$20,885,350
1326-544	NEW LONDON	Norwich	Stone House	Uncas-on-Thames Hospital	Building No. 11	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Norwich		Uncas-on-Thames Hospital		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Norwich		Uncas-on-Thames Hospital		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Norwich		Uncas-on-Thames Hospital		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Norwich		Uncas-on-Thames Hospital		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Norwich		Uncas-on-Thames Hospital		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Norwich		Uncas-on-Thames Hospital		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Norwich		Uncas-on-Thames Hospital		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
(none)	HARTFORD	New Britain	Softball Field	Central Connecticut State University	Building No. 64, Dugout	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
(none)	HARTFORD	New Britain	Softball Field	Central Connecticut	Building No. 64, Dugout	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
				State University													
7802-27	HARTFORD	New Britain	East Hall	Central Connecticut State University	Building No. 26, Facilities Management	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
(none)	NEW LONDON	Norwich	Mohegan Campus	Three Rivers Community College	Shed	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7802-3	HARTFORD	New Britain	Marcus White Hall	Central Connecticut State University	Building No. 3, Education	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7802-1	HARTFORD	New Britain	Lawrence J. Davidson Hall	Central Connecticut State University	Building No. 1, Office	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7802-7101	HARTFORD	New Britain	Robert C. Vance Academic Center	Central Connecticut State University	Building No. 37, Education	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7802-7102	HARTFORD	New Britain	Vance Garage	Central Connecticut State University	Building No. 39, Garage	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7802-5	HARTFORD	New Britain	Henry Barnard Hall	Central Connecticut State University	Building No. 5, Education	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7802-19	HARTFORD	New Britain	Memorial Hall	Central Connecticut State University	Building No. 18, Education	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7802-42	HARTFORD	New Britain	East Pump House	Central Connecticut State University	Building No. 47, Facilities Management	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7802-2	HARTFORD	New Britain	Power House	Central Connecticut State University	Building No. 2, Facilities Management	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7802-24	HARTFORD	New Britain	Nicholas Copernicus Hall	Central Connecticut State University	Building No. 23, Education	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7802-18	HARTFORD	New Britain	Copernicus Parking Garage	Central Connecticut State University	Building No. 17, Garage	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7802-26	HARTFORD	New Britain	James. J. Maloney Hall	Central Connecticut State University	Building No. 25, Education	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7802-7110	HARTFORD	New Britain	Energy Center	Central Connecticut	Building No. 43, Facilities Management	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
				State University													
(none)	HARTFORD	New Britain	Energy Center Coolling Tower	Central Connecticut State University	Facilities Management	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7802-7104	HARTFORD	New Britain	Welte Parking Garage	Central Connecticut State University	Building No. 40, Garage	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7802-6	HARTFORD	New Britain	Herbert D. Welte Hall	Central Connecticut State University	Building No. 6, Theater/Auditorium	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7802-23	HARTFORD	New Britain	Elihu Burritt Library	Central Connecticut State University	Building No. 22, Library	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7802-28	HARTFORD	New Britain	North Pump House	Central Connecticut State University	Building No. 27, Facilities Management	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7802-9	HARTFORD	New Britain	Samuel J. May Hall	Central Connecticut State University	Building No. 9, Residence	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7802-15	HARTFORD	New Britain	Robert E. Sheridan Hall	Central Connecticut State University	Building No. 14, Residence	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7802-7	HARTFORD	New Britain	Harrison J. Kaiser Hall	Central Connecticut State University	Building No. 7, Sports/Gymnasium	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7802-17	HARTFORD	New Britain	Thomas A. Gallaudet Hall	Central Connecticut State University	Building No. 16, Residence	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7802-21	HARTFORD	New Britain	Robert Vance Hall	Central Connecticut State University	Building No. 20, Residence	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7802-33	HARTFORD	New Britain	Student Center Parking Garage	Central Connecticut State University	Building No. 33, Garage	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7802-35	HARTFORD	New Britain	Kaiser Hall Annex	Central Connecticut State University	Building No. 35, Sports/Gymnasium	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7802-14	HARTFORD	New Britain	Student Center	Central Connecticut State University	Building No. 13, Education	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
(none)	HARTFORD	New Britain	Shed	Central Connecticut State University	Police Department	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
(none)	HARTFORD	New Britain	Balf-Savin Field/Bottalico Baseball	Central Connecticut State University	Building No. 42, Dugout	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
(none)	HARTFORD	New Britain	Balf-Savin Field/Bottalico Baseball	Central Connecticut State University	Building No. 42, Dugout	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
(none)	HARTFORD	New Britain	Balf-Savin Field/Bottalico Baseball	Central Connecticut State University	Shed	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
(none)	HARTFORD	New Britain	Public Safety Building	Central Connecticut State University	Police Department	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7802-7109	HARTFORD	New Britain	Public Safety Building	Central Connecticut State University	Police Department	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
1326-505	NEW LONDON	Waterford	Duplex House	Seaside Regional Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
1326-497	NEW LONDON	Waterford	Duplex Garage	Seaside Regional Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
1326-498	NEW LONDON	Waterford	Employee Building No. 2	Seaside Regional Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
(none)	NEW LONDON	Waterford	Maintenance Building No. 2	Seaside Regional Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
(none)	NEW LONDON	Waterford	Butler Building	Seaside Regional Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
1326-494	NEW LONDON	Waterford	Generator Building	Seaside Regional Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
1326-99993	NEW LONDON	Waterford	Sewage Treatment Plant	Seaside Regional Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
1326-492	NEW LONDON	Waterford	Greenhouse	Seaside Regional Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
(none)	NEW LONDON	Waterford	Butler Building	Seaside Regional Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
4125-495	NEW LONDON	Waterford	Incinerator Building	Seaside Regional Center		$160,680	$285,646	$66,949	$223,163	$0	$133,898	$0	$0	$89,265	$0	$0	$6,694,892

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
(none)	NEW LONDON	Waterford	Renovated Garage	Seaside Regional Center	Workshop	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
4125-244126	NEW LONDON	Waterford	Community Living Arrangement	Seaside Regional Center		$1,476,783	$116,995	$239,067	$796,889	$0	$478,133	$0	$0	$318,756	$0	$0	$23,906,665
1326-502	NEW LONDON	Waterford	Water Pump Station	Seaside Regional Center	Pump House No. 3	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7802-7108	HARTFORD	New Britain	Chemical Storage Building	Central Connecticut State University	Building No. 77, Storage	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7802-7107	HARTFORD	New Britain	Athletic Support Facility	Central Connecticut State University	Building No. 75, Sports/Gymnasium	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
(none)	HARTFORD	Rocky Hill	Garage	Veteran's Home & Hospital	Building No. 13 Garage	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
1312-13	HARTFORD	Rocky Hill	Residence	Veteran's Home & Hospital	Building No. 13	$167,606	$285,646	$67,988	$158,638	$0	$135,975	$0	$0	$90,650	$0	$0	$6,798,775
(none)	HARTFORD	Rocky Hill	Garage	Veteran's Home & Hospital	Building Nos. 15 & 17 Garage	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
1312-15	HARTFORD	Rocky Hill	Residence (Duplex)	Veteran's Home & Hospital	Building No. 15	$145,106	$285,646	$64,613	$150,763	$0	$129,226	$0	$0	$86,150	$0	$0	$6,461,279
1312-17	HARTFORD	Rocky Hill	Residence (Duplex)	Veteran's Home & Hospital	Building No. 17	$143,280	$285,646	$64,339	$150,124	$0	$128,678	$0	$0	$85,785	$0	$0	$6,433,888
1312-20	HARTFORD	Rocky Hill	Maintenance Garage	Veteran's Home & Hospital	Building No. 20	$101,419	$165,259	$40,002	$93,337	$0	$80,003	$0	$0	$53,335	$0	$0	$4,000,161
7805-11	WINDHAM	Windham	Burnap Hall	Eastern Connecticut State University	Building No. 36	$3,878,062	$32,624	$586,603	$1,368,740	$0	$1,173,206	$0	$0	$782,137	$0	$0	$58,660,291
(none)	WINDHAM	Windham		Eastern Connecticut State University	Proposed Police Facility	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
(none)	NEW HAVEN	Cheshire		DPS Cheshire	Shed	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
(none)	NEW HAVEN	Cheshire		DPS Cheshire	Residence	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
1326-480	HARTFORD	Hartford		State of Connecticut Office Building	DSS Main Office	$41,752,939	$7,095,948	$7,327,333	$17,097,110	$0	$14,654,666	$0	$0	$9,769,777	$0	$0	$732,733,304
1326-28	HARTFORD	Hartford		DPH Laboratory		$12,568,309	$92,028	$1,899,051	$4,431,118	$0	$3,798,101	$0	$0	$2,532,067	$0	$0	$189,905,051
1326-7104	HARTFORD	Hartford		Parking Garage	Also Maintenance Garage	$3,286,805	$285,646	$535,868	$1,250,358	$0	$1,071,735	$0	$0	$714,490	$0	$0	$53,586,773

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
9001-11	HARTFORD	Hartford		State of Connecticut Superior Court	Courthouse	$109,017,521	$3,735,254	$16,912,916	$39,463,471	$0	$33,825,833	$0	$0	$22,550,555	$0	$0	$1,691,291,627
9001-483	HARTFORD	Hartford		Hartford Community Court	Courthouse	$5,846,252	$118,867	$894,768	$2,087,792	$0	$1,789,536	$0	$0	$1,193,024	$0	$0	$89,476,790
(unknown)	HARTFORD	Hartford	Amos Bull House	Amos Bull House		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
9001-211326	HARTFORD	Hartford		Judicial	Administration	$6,375,430	$375,562	$1,012,649	$2,362,847	$0	$2,025,298	$0	$0	$1,350,198	$0	$0	$101,264,887
1326-481	HARTFORD	Hartford	Hudson Park	State of Connecticut Office Building		$7,677,982	$1,631,789	$1,396,466	$3,258,420	$0	$2,792,931	$0	$0	$1,861,954	$0	$0	$139,646,561
9001-7104	HARTFORD	Hartford	Hartford Juvenile Detention	Hartford Juvenile Matters Courthouse	(unknnown)	$20,648,529	$367,000	$3,152,329	$7,355,435	$0	$6,304,659	$0	$0	$4,203,106	$0	$0	$315,232,928
(none)	HARTFORD	Hartford	office			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
3002-4	HARTFORD	Hartford	Building A	Regional Market		$4,543,438	$285,646	$724,363	$1,690,179	$0	$1,448,725	$0	$0	$965,817	$0	$0	$72,436,264
3002-2	HARTFORD	Hartford	Watchman	Regional Market		$4,790	$285,646	$43,565	$101,653	$0	$87,131	$0	$0	$58,087	$0	$0	$4,356,542
	HARTFORD	Hartford		Brainard Airport		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Hartford		Brainard Airport		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Hartford		Brainard Airport		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Hartford		Brainard Airport		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7001-20	HARTFORD	Hartford	Main Campus Building	A.I. Prince Technical High School	Education	$58,066,182	$2,926,312	$9,148,874	$21,347,373	$0	$18,297,748	$0	$0	$12,198,499	$0	$0	$914,887,414
	HARTFORD	Hartford		Brainard Airport		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Hartford		Brainard Airport		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Hartford		Brainard Airport		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Hartford		Brainard Airport		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
1310-7108	HARTFORD	Hartford	Former Hartford Times Building			$6,336,089	$285,646	$993,260	$2,317,607	$0	$1,986,521	$0	$0	$1,324,347	$0	$0	$99,326,034
8000-163	HARTFORD	Hartford	Hartford Correctional Center	Hartford Correctional Center		$28,916,400	$1,051,023	$4,495,113	$10,488,598	$0	$8,990,227	$0	$0	$5,993,485	$0	$0	$449,511,341
8000-7980	HARTFORD	Hartford	Dorms 1 & 2	Hartford Correctional Center		$2,655,466	$14,387	$400,478	$934,449	$0	$800,956	$0	$0	$533,971	$0	$0	$40,047,796
(none)	HARTFORD	Hartford		Governor's Residence	Deck	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7301-366	HARTFORD	Hartford	School of Law - Cheryl A. Chase Hall	University of Connecticut		$9,650,598	$258,956	$1,486,433	$3,468,344	$0	$2,972,866	$0	$0	$1,981,911	$0	$0	$148,643,309

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
7701-13	HARTFORD	Hartford	Carriage House Structure	CT Community Colleges System Office	Education	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
(none)	HARTFORD	Hartford		CT Community Colleges System Office		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Hartford				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7301-7168	HARTFORD	Hartford	School of Law - William F. Starr Hall	University of Connecticut	Office	$4,665,694	$473,483	$770,877	$1,798,712	$0	$1,541,753	$0	$0	$1,027,835	$0	$0	$77,087,657
1326-1	HARTFORD	Hartford	School of Law - MacKenzie Hall	University of Connecticut	Office	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
1326-35	HARTFORD	Hartford	School of Insurance	University of Connecticut	Office	$6,626,687	$106,926	$1,010,042	$2,356,765	$0	$2,020,084	$0	$0	$1,346,723	$0	$0	$101,004,198
(none)	HARTFORD	Hartford		Parking Lot	Guard Shack	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
1326-7	HARTFORD	Hartford		Department of Revenue Services	State Tax Building	$6,626,209	$285,646	$1,036,778	$2,419,149	$0	$2,073,557	$0	$0	$1,382,371	$0	$0	$103,677,827
	HARTFORD	Hartford				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Hartford				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Hartford				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Hartford		Western		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
(none)	FAIRFIELD	Danbury	Communications Tower	Western Connecticut State University - Westside Campus	Facilities	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
1326-8527	LITCHFIELD	Torrington		Armory		$1,732,264	$285,646	$302,687	$706,269	$0	$605,373	$0	$0	$403,582	$0	$0	$30,268,659
7001-11	LITCHFIELD	Torrington	Main Campus Building	Oliver Wolcott Technical High School		$25,129,881	$2,599,407	$4,159,393	$9,705,251	$0	$8,318,786	$0	$0	$5,545,858	$0	$0	$415,939,318
4124-521	LITCHFIELD	Torrington	Spruce/Pine - Building 1	Northwest Regional Center		$1,040,000	$25,064	$159,760	$372,772	$0	$319,519	$0	$0	$213,013	$0	$0	$15,975,959
(none)	FAIRFIELD	Danbury	Softball Field Structure	Western Connecticut State University - Westside Campus	Athletics/Recreation	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7803-482	FAIRFIELD	Danbury	Maintenance Garage	Western Connecticut State University - Westside Campus	Facilities	$319,530	$426,565	$111,914	$373,048	$0	$223,829	$0	$0	$149,219	$0	$0	$11,191,432
(none)	FAIRFIELD	Danbury	Water Tower	Western Connecticut State University -	Facilities	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
				Westside Campus													
(none)	FAIRFIELD	Danbury	Softball Field Structure	Western Connecticut State University - Westside Campus	Athletics/Recreation	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
(none)	FAIRFIELD	Danbury	Softball Field Structure	Western Connecticut State University - Westside Campus	Athletics/Recreation	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7803-4444	FAIRFIELD	Danbury	Ella Grasso Hall	Western Connecticut State University - Westside Campus	Student Life	$8,748,405	$41,780	$1,318,528	$4,395,092	$0	$2,637,055	$0	$0	$1,758,037	$0	$0	$131,852,769
7803-18444	FAIRFIELD	Danbury	Ives Concert Park - Gazebo	Western Connecticut State University - Westside Campus	Athletics/Recreation	$202,788	$285,646	$73,265	$244,217	$0	$146,530	$0	$0	$97,687	$0	$0	$7,326,512
(none)	FAIRFIELD	Danbury	Ives Concert Park	Western Connecticut State University - Westside Campus	Athletics/Recreation	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
(none)	FAIRFIELD	Danbury	Softball Field Structure	Western Connecticut State University - Westside Campus	Athletics/Recreation	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7803-478	FAIRFIELD	Danbury	O'Neill Center	Western Connecticut State University - Westside Campus	Athletics/Recreation	$16,829,099	$426,497	$2,588,339	$8,627,798	$0	$5,176,679	$0	$0	$3,451,119	$0	$0	$258,833,942
7803-7643	FAIRFIELD	Danbury	Parking Garage	Western Connecticut State University - Westside Campus	Parking Garage	$8,091,356	$285,646	$1,256,550	$4,188,501	$0	$2,513,101	$0	$0	$1,675,400	$0	$0	$125,655,035
7803-7642	FAIRFIELD	Danbury	Centennial Hall	Western Connecticut State University -	Student Life	$18,274,208	$326,888	$2,790,164	$9,300,548	$0	$5,580,329	$0	$0	$3,720,219	$0	$0	$279,016,444

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
				Westside Campus													
7803-154444	FAIRFIELD	Danbury	Observatory	Western Connecticut State University - Westside Campus	Academics	$554,305	$43,961	$89,740	$299,133	$0	$179,480	$0	$0	$119,653	$0	$0	$8,973,991
7803-7648	FAIRFIELD	Danbury	Westside Campus Center	Western Connecticut State University - Westside Campus	Student Life	$16,625,756	$362,077	$2,548,175	$8,493,917	$0	$5,096,350	$0	$0	$3,397,567	$0	$0	$254,817,501
7803-1444	FAIRFIELD	Danbury	Westside Classroom Building	Western Connecticut State University - Westside Campus	Academics	$10,527,346	$1,962,624	$1,873,495	$6,244,985	$0	$3,746,991	$0	$0	$2,497,994	$0	$0	$187,349,542
7803-484	FAIRFIELD	Danbury	Truman A. Warner Hall	Western Connecticut State University - Midtown Campus	Academics	$6,591,669	$276,202	$1,030,181	$3,433,936	$0	$2,060,361	$0	$0	$1,373,574	$0	$0	$103,018,072
7803-9444	FAIRFIELD	Danbury	Ruth Haas Library	Western Connecticut State University - Midtown Campus	Library	$16,348,163	$497,134	$2,526,795	$8,422,649	$0	$5,053,589	$0	$0	$3,369,059	$0	$0	$252,679,456
7803-479	FAIRFIELD	Danbury	Alumni Hall	Western Connecticut State University - Midtown Campus	Administration/Student Services	$704,514	$31,431	$110,392	$367,972	$0	$220,783	$0	$0	$147,189	$0	$0	$11,039,166
7803-480	FAIRFIELD	Danbury	Parking Garage	Western Connecticut State University - Midtown Campus	Parking Garage	$9,905,378	$375,165	$1,542,081	$5,140,272	$0	$3,084,163	$0	$0	$2,056,109	$0	$0	$154,208,150
7803-14444	FAIRFIELD	Danbury	White Hall	Western Connecticut State University - Midtown Campus	Academics/Administration	$6,239,121	$1,666,701	$1,185,873	$3,952,911	$0	$2,371,747	$0	$0	$1,581,164	$0	$0	$118,587,331
7803-11444	FAIRFIELD	Danbury	Midtown Student Center	Western Connecticut State University -	Student Services	$8,050,450	$266,011	$1,247,469	$4,158,230	$0	$2,494,938	$0	$0	$1,663,292	$0	$0	$124,746,905

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
				Midtown Campus													
5000-741	HARTFORD	Avon	Salt Shed	Department of Transportation		$313,670	$285,646	$89,897	$209,761	$0	$179,795	$0	$0	$119,863	$0	$0	$8,989,743
7301-361	HARTFORD	West Hartford	3201 Hartford Undergraduate Building	UCONN LAW SCHOOL		$12,961,433	$553,702	$2,027,270	$4,730,297	$0	$4,054,541	$0	$0	$2,703,027	$0	$0	$202,727,036
7301-7204	HARTFORD	West Hartford	3205 Computer Center and Classroom	UCONN LAW SCHOOL		$16,770	$325,105	$51,281	$119,656	$0	$102,562	$0	$0	$68,375	$0	$0	$5,128,117
7301-363	HARTFORD	West Hartford	3203 Hartford Campus H. Trecker Library	UCONN LAW SCHOOL		$8,151,031	$1,024,255	$1,376,293	$3,211,350	$0	$2,752,586	$0	$0	$1,835,057	$0	$0	$137,629,294
7302-18	HARTFORD	Farmington	Building 6	UCONN HEALTH CENTER		$809,168	$228,959	$155,719	$363,344	$0	$311,438	$0	$0	$207,625	$0	$0	$15,571,894
7302-15	HARTFORD	Farmington	3 Pharm	UCONN HEALTH CENTER		$831,676	$593,101	$213,716	$498,672	$0	$427,433	$0	$0	$284,955	$0	$0	$21,371,647
4400-357	HARTFORD	Newington	Cottage #27	Cedarcrest Hospital		$142,603	$285,646	$64,237	$149,887	$0	$128,475	$0	$0	$85,650	$0	$0	$6,423,739
4400-358	HARTFORD	Newington	Cottage #28	Cedarcrest Hospital		$249,775	$285,646	$80,313	$187,397	$0	$160,626	$0	$0	$107,084	$0	$0	$8,031,315
4400-359	HARTFORD	Newington	Cottage #34	Cedarcrest Hospital		$224,821	$285,646	$76,570	$178,663	$0	$153,140	$0	$0	$102,093	$0	$0	$7,657,000
4400-350	HARTFORD	Newington	Building #11	Cedarcrest Hospital		$2,193,705	$285,646	$371,903	$867,773	$0	$743,805	$0	$0	$495,870	$0	$0	$37,190,260
4400-351	HARTFORD	Newington	Building #29	Cedarcrest Hospital		$1,701,741	$285,646	$298,108	$695,586	$0	$596,216	$0	$0	$397,478	$0	$0	$29,810,813
4400-361	HARTFORD	Newington	Hospital 2	Cedarcrest Hospital		$1,457,757	$285,646	$261,511	$610,191	$0	$523,021	$0	$0	$348,681	$0	$0	$26,151,054
4400-363	HARTFORD	Newington	Main Building (Hosp 1)	Cedarcrest Hospital		$12,442,643	$555,875	$1,949,778	$4,549,481	$0	$3,899,555	$0	$0	$2,599,704	$0	$0	$194,977,773
	HARTFORD	Newington		Cedarcrest Hospital		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
4122-134122	HARTFORD	Newington	85 Mountain Road	Hartford Regional Center		$312,419	$7,996	$48,062	$112,145	$0	$96,124	$0	$0	$64,083	$0	$0	$4,806,213
4122-154122	HARTFORD	Newington	87 Mountain Road	Hartford Regional Center		$106,784	$285,646	$58,865	$137,351	$0	$117,729	$0	$0	$78,486	$0	$0	$5,886,451
4122-14122	HARTFORD	Newington	DMR No. Central Regional Newington office	Hartford Regional Center		$11,769,656	$373,294	$1,821,443	$4,250,033	$0	$3,642,885	$0	$0	$2,428,590	$0	$0	$182,144,253
4122-104122	HARTFORD	Newington	77 Mountain Road	Hartford Regional Center		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
4122-124122	HARTFORD	Newington	81 Mountain Road	Hartford Regional Center		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Newington				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Newington				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
5000-4252	HARTFORD	Newington	Administration Building	DOT Headquarters		$51,997,125	$11,098,968	$9,464,414	$22,083,633	$0	$18,928,828	$0	$0	$12,619,219	$0	$0	$946,441,396

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
5000-23	HARTFORD	Newington	Information Systems	DOT Headquarters		$1,677,880	$9,041,530	$1,607,911	$3,751,793	$0	$3,215,823	$0	$0	$2,143,882	$0	$0	$160,791,136
	HARTFORD	Newington				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
4122-532241	HARTFORD	Newington	395 Church Street			$311,251	$2,955	$47,131	$109,972	$0	$94,262	$0	$0	$62,841	$0	$0	$4,713,097
4400-354	HARTFORD	Wethersfield	Cottage #17	Cedarcrest Hospital		$267,875	$285,646	$83,028	$193,733	$0	$166,056	$0	$0	$110,704	$0	$0	$8,302,823
4400-364	HARTFORD	Wethersfield	Maintain Boiler Building	Cedarcrest Hospital		$3,151,935	$50,677	$480,392	$1,120,914	$0	$960,784	$0	$0	$640,522	$0	$0	$48,039,177
5000-169	HARTFORD	Rocky Hill	District I Office Building	Department of Transportation		$1,189,790	$715,319	$285,766	$666,788	$0	$571,533	$0	$0	$381,022	$0	$0	$28,576,630
5000-184	HARTFORD	Rocky Hill	Storage Warehouse & Office PR	Department of Transportation		$129,516	$124,789	$38,146	$89,007	$0	$76,292	$0	$0	$50,861	$0	$0	$3,814,576
5000-109	HARTFORD	Rocky Hill	Stores Equipment Storage	Department of Transportation		$69,550	$174,463	$36,602	$85,405	$0	$73,204	$0	$0	$48,803	$0	$0	$3,660,197
5000-187	HARTFORD	Rocky Hill	Stores Central Storage Warehouse	Department of Transportation		$3,859,212	$3,562,850	$1,113,309	$2,597,722	$0	$2,226,618	$0	$0	$1,484,412	$0	$0	$111,330,923
5000-109	HARTFORD	Rocky Hill	Storage Warehouse & Office PR	Department of Transportation		$69,550	$174,463	$36,602	$85,405	$0	$73,204	$0	$0	$48,803	$0	$0	$3,660,197
5000-791	HARTFORD	Rocky Hill	Salt Shed	Department of Transportation		$39,901	$285,646	$48,832	$113,942	$0	$97,664	$0	$0	$65,109	$0	$0	$4,883,208
5000-22	HARTFORD	Rocky Hill	Research Laboratory	DOT Records Storage		$7,006,985	$3,921,977	$1,639,344	$3,825,137	$0	$3,278,688	$0	$0	$2,185,792	$0	$0	$163,934,424
5000-190	HARTFORD	Rocky Hill	Storage Building	DOT Records Storage		$271,278	$451,171	$108,367	$252,857	$0	$216,735	$0	$0	$144,490	$0	$0	$10,836,728
7104-3	HARTFORD	Rocky Hill	State Records Center			$1,150,316	$298,143	$217,269	$506,961	$0	$434,538	$0	$0	$289,692	$0	$0	$21,726,888
5000-705	HARTFORD	East Hartford	Salt Shed	Department of Transportation		$606,210	$285,646	$133,778	$312,150	$0	$267,557	$0	$0	$178,371	$0	$0	$13,377,839
5000-60	HARTFORD	East Hartford	Sign/Garage	Department of Transportation		$370,671	$119,809	$73,572	$171,668	$0	$147,144	$0	$0	$98,096	$0	$0	$7,357,194
	HARTFORD	Manchester		Manchester Community College		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
2201-52	HARTFORD	Manchester	State Armory	Armory		$1,861,236	$9,985	$280,683	$654,927	$0	$561,366	$0	$0	$374,244	$0	$0	$28,068,317
2201-53	HARTFORD	Manchester	Oms Shop	Armory		$623,466	$285,646	$136,367	$318,189	$0	$272,734	$0	$0	$181,822	$0	$0	$13,636,676
	HARTFORD	Manchester		Armory		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
2201-54	HARTFORD	Manchester	Grease-Oil Shed	Armory		$11,354	$285,646	$44,550	$103,950	$0	$89,100	$0	$0	$59,400	$0	$0	$4,455,000

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	HARTFORD	Glastonbury		Department of Transportation		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
4122-224122	HARTFORD	Glastonbury	2955 Main Street	Department of Transportation		$186,708	$285,646	$70,853	$165,324	$0	$141,706	$0	$0	$94,471	$0	$0	$7,085,316
	HARTFORD	Glastonbury		Department of Transportation		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Glastonbury		Department of Transportation		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
5000-5	HARTFORD	Glastonbury	Maintenance Garage	Department of Transportation		$1,401,959	$270,476	$250,865	$585,352	$0	$501,730	$0	$0	$334,487	$0	$0	$25,086,524
5000-376	HARTFORD	Glastonbury	Jet Hangar	Department of Transportation		$35,158	$285,646	$48,121	$112,282	$0	$96,241	$0	$0	$64,161	$0	$0	$4,812,070
5000-797	HARTFORD	Glastonbury	Salt Shed	Department of Transportation		$457,016	$285,646	$111,399	$259,932	$0	$222,799	$0	$0	$148,532	$0	$0	$11,139,930
2000-26	MIDDLESEX	Westbrook	Troop F	Troop F		$1,183,546	$285,646	$220,379	$734,596	$0	$440,758	$0	$0	$293,838	$0	$0	$22,037,885
2000-25	MIDDLESEX	Westbrook	Troop F Westbrook Garage	Troop F		$227,594	$285,646	$76,986	$256,620	$0	$153,972	$0	$0	$102,648	$0	$0	$7,698,598
2000-502	MIDDLESEX	Westbrook	Troop F Radio Tower	Troop F		$306,805	$285,420	$88,834	$296,113	$0	$177,668	$0	$0	$118,445	$0	$0	$8,883,379
5000-46	MIDDLESEX	Old Saybrook	Maintenance Garage	Department of Transportation		$180,085	$227,138	$61,083	$203,611	$0	$122,167	$0	$0	$81,444	$0	$0	$6,108,337
	MIDDLESEX	Middletown		Department of Transportation		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
2000-31	MIDDLESEX	Middletown	DPS Headquarters	Department of Public Safety Headquarters		$6,905,120	$58,634,730	$9,830,978	$32,769,925	$0	$19,661,955	$0	$0	$13,107,970	$0	$0	$983,097,750
4125-84125	MIDDLESEX	Middletown	Olympus Parkway Group Home			$626,384	$1,912	$94,244	$314,148	$0	$188,489	$0	$0	$125,659	$0	$0	$9,424,448
4125-124125	MIDDLESEX	Middletown	Westfield St Group Home			$332,340	$50,157	$57,375	$191,248	$0	$114,749	$0	$0	$76,499	$0	$0	$5,737,455
4125-74125	MIDDLESEX	Middletown	Old Mill Road Group Home			$332,340	$89,658	$63,300	$210,999	$0	$126,599	$0	$0	$84,400	$0	$0	$6,329,974
	MIDDLESEX	Middletown				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	MIDDLESEX	Middletown				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	Middletown				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7104-4	MIDDLESEX	Middletown	Middletown Library Service Center	Library		$647,550	$3,468,608	$617,424	$2,058,079	$0	$1,234,848	$0	$0	$823,232	$0	$0	$61,742,377
4400-102	MIDDLESEX	Middletown	Merritt Hall	Connecticut Valley Hospital		$41,474,689	$1,293,238	$6,415,189	$21,383,963	$0	$12,830,378	$0	$0	$8,553,585	$0	$0	$641,518,898
4400-121	MIDDLESEX	Middletown	Smith Home	Connecticut Valley Hospital		$1,449,799	$285,646	$260,317	$867,723	$0	$520,634	$0	$0	$347,089	$0	$0	$26,031,684
4400-79	MIDDLESEX	Middletown	Dutton Home	Connecticut Valley Hospital		$2,187,589	$67,226	$338,222	$1,127,407	$0	$676,444	$0	$0	$450,963	$0	$0	$33,822,221
4400-81	MIDDLESEX	Middletown	Eddy Home	Connecticut Valley Hospital		$2,675,956	$285,646	$444,240	$1,480,801	$0	$888,481	$0	$0	$592,320	$0	$0	$44,424,033
4400-129	MIDDLESEX	Middletown	Weeks Hall	Connecticut Valley Hospital		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
4400-69	MIDDLESEX	Middletown	Cottage 31	Connecticut Valley Hospital		$42,795	$285,646	$49,266	$164,221	$0	$98,532	$0	$0	$65,688	$0	$0	$4,926,619
4400-47	MIDDLESEX	Middletown	Cottage 9	Connecticut Valley Hospital		$39,779	$285,646	$48,814	$162,713	$0	$97,628	$0	$0	$65,085	$0	$0	$4,881,384
4400-70	MIDDLESEX	Middletown	Cottage 32	Connecticut Valley Hospital		$42,795	$285,646	$49,266	$164,221	$0	$98,532	$0	$0	$65,688	$0	$0	$4,926,619
8102-7955	MIDDLESEX	Middletown	Support Services Bldg 3	Connecticut Valley Hospital		$19,946,659	$860,077	$3,121,010	$10,403,368	$0	$6,242,021	$0	$0	$4,161,347	$0	$0	$312,101,046
8102-7956	MIDDLESEX	Middletown	Transitional Housing	Connecticut Valley Hospital		$6,575,688	$38,842	$992,180	$3,307,265	$0	$1,984,359	$0	$0	$1,322,906	$0	$0	$99,217,954
8102-7954	MIDDLESEX	Middletown	Special Housing	Connecticut Valley Hospital		$4,269,290	$37,057	$645,952	$2,153,173	$0	$1,291,904	$0	$0	$861,269	$0	$0	$64,595,202
8102-7958	MIDDLESEX	Middletown	General Population Housing Bldg 5	Connecticut Valley Hospital		$6,968,266	$26,705	$1,049,246	$3,497,486	$0	$2,098,491	$0	$0	$1,398,994	$0	$0	$104,924,565
8102-7957	MIDDLESEX	Middletown	General Population Housing Bldg 6	Connecticut Valley Hospital		$6,968,266	$5,867	$1,046,120	$3,487,066	$0	$2,092,240	$0	$0	$1,394,827	$0	$0	$104,611,994
4400-110	MIDDLESEX	Middletown	Page Hall	Connecticut Valley Hospital		$13,472,512	$285,646	$2,063,724	$6,879,079	$0	$4,127,448	$0	$0	$2,751,632	$0	$0	$206,372,377
4400-76	MIDDLESEX	Middletown	Cotter Hall	Connecticut Valley Hospital		$1,945,355	$266,189	$331,732	$1,105,772	$0	$663,463	$0	$0	$442,309	$0	$0	$33,173,162
4400-34	MIDDLESEX	Middletown	Carpenter Pnt	Connecticut Valley Hospital		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
4400-78	MIDDLESEX	Middletown	Dutcher Hall	Connecticut Valley Hospital		$8,923,215	$82,500	$1,350,857	$4,502,858	$0	$2,701,715	$0	$0	$1,801,143	$0	$0	$135,085,732
4400-112	MIDDLESEX	Middletown	Power House	Connecticut Valley Hospital		$11,514,072	$285,646	$1,769,958	$5,899,859	$0	$3,539,915	$0	$0	$2,359,944	$0	$0	$176,995,766
4400-98	MIDDLESEX	Middletown	Leak Hall	Connecticut Valley Hospital		$5,264,019	$72,561	$800,487	$2,668,290	$0	$1,600,974	$0	$0	$1,067,316	$0	$0	$80,048,707
4400-105	MIDDLESEX	Middletown	North Barn	Connecticut Valley Hospital		$39,511	$14,773	$8,143	$27,142	$0	$16,285	$0	$0	$10,857	$0	$0	$814,260
4400-96	MIDDLESEX	Middletown	Kraut Storage Shed	Connecticut Valley Hospital		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
4400-111	MIDDLESEX	Middletown	Paint Shop	Connecticut Valley Hospital		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
4400-482	MIDDLESEX	Middletown	Processing Center	Connecticut Valley Hospital		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
4400-88	MIDDLESEX	Middletown	Grounds Garage	Connecticut Valley Hospital		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
4400-104	MIDDLESEX	Middletown	Noble Hall	Connecticut Valley Hospital		$1,259,605	$285,646	$231,788	$772,626	$0	$463,575	$0	$0	$309,050	$0	$0	$23,178,766
4400-80	MIDDLESEX	Middletown	Daycare	Connecticut Valley Hospital		$908,620	$285,646	$179,140	$597,133	$0	$358,280	$0	$0	$238,853	$0	$0	$17,913,995
4400-39	MIDDLESEX	Middletown	Cottage 01 & Cottage 02 Garage	Connecticut Valley Hospital		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
4400-74	MIDDLESEX	Middletown	Cottage 36	Connecticut Valley Hospital		$108,816	$285,646	$59,169	$197,231	$0	$118,339	$0	$0	$78,892	$0	$0	$5,916,933
4400-73	MIDDLESEX	Middletown	Cottage 35	Connecticut Valley Hospital		$115,669	$285,646	$60,197	$200,658	$0	$120,395	$0	$0	$80,263	$0	$0	$6,019,726
4400-71	MIDDLESEX	Middletown	Cottage 33	Connecticut Valley Hospital		$108,816	$285,646	$59,169	$197,231	$0	$118,339	$0	$0	$78,892	$0	$0	$5,916,933
4400-72	MIDDLESEX	Middletown	Cottage 34	Connecticut Valley Hospital		$108,816	$285,646	$59,169	$197,231	$0	$118,339	$0	$0	$78,892	$0	$0	$5,916,933
4400-65	MIDDLESEX	Middletown	Cottage 27	Connecticut Valley Hospital		$116,773	$285,646	$60,363	$201,210	$0	$120,726	$0	$0	$80,484	$0	$0	$6,036,287
4400-59	MIDDLESEX	Middletown	Cottage 20	Connecticut Valley Hospital		$107,728	$285,646	$59,006	$196,687	$0	$118,012	$0	$0	$78,675	$0	$0	$5,900,615
4400-64	MIDDLESEX	Middletown	Cottage 26	Connecticut Valley Hospital		$137,489	$285,646	$63,470	$211,567	$0	$126,940	$0	$0	$84,627	$0	$0	$6,347,022

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
1312-36	MIDDLESEX	Middletown	Cemetary-Middletown			$200,240	$229,335	$64,436	$214,788	$0	$128,873	$0	$0	$85,915	$0	$0	$6,443,625
4400-107	MIDDLESEX	Middletown	CSEA Credit Union	Connecticut Valley Hospital		$114,266	$285,646	$59,987	$199,956	$0	$119,974	$0	$0	$79,982	$0	$0	$5,998,684
4400-68	MIDDLESEX	Middletown	Cottage 30	Connecticut Valley Hospital		$44,007	$285,646	$49,448	$164,827	$0	$98,896	$0	$0	$65,931	$0	$0	$4,944,804
8102-66	MIDDLESEX	Middletown	Kiwani Bldg. #4	Connecticut Valley Hospital		$474,821	$17,103	$73,789	$245,962	$0	$147,577	$0	$0	$98,385	$0	$0	$7,378,860
4400-45	MIDDLESEX	Middletown	Cottage 8	Connecticut Valley Hospital		$59,490	$285,646	$51,770	$172,568	$0	$103,541	$0	$0	$69,027	$0	$0	$5,177,035
4400-131	MIDDLESEX	Middletown	Weeks Hall Infirmary	Connecticut Valley Hospital		$10,461,232	$285,646	$1,612,032	$5,373,439	$0	$3,224,063	$0	$0	$2,149,376	$0	$0	$161,203,175
5000-3	MIDDLESEX	Portland	Machine Shop	Department of Transportation		$1,133,613	$192,003	$198,842	$662,808	$0	$397,685	$0	$0	$265,123	$0	$0	$19,884,233
	MIDDLESEX	Portland				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	Portland				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
5000-708	MIDDLESEX	East Hampton	Salt Shed	Department of Transportation		$342,636	$28,875	$55,727	$185,755	$0	$111,453	$0	$0	$74,302	$0	$0	$5,572,664
	MIDDLESEX	East Hampton		Department of Transportation		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
5000-4183	MIDDLESEX	East Hampton	Personnel Shelter	Department of Transportation		$9,292	$285,646	$44,241	$147,469	$0	$88,482	$0	$0	$58,988	$0	$0	$4,424,077
5000-675	MIDDLESEX	Middletown	Bus Shelter			$5,013	$285,646	$43,599	$145,330	$0	$87,198	$0	$0	$58,132	$0	$0	$4,359,893
5000-4	MIDDLESEX	Middletown	Maintenance Garage	Department of Transportation		$2,806,777	$262,305	$460,362	$1,534,541	$0	$920,725	$0	$0	$613,816	$0	$0	$46,036,226
4124-1821	LITCHFIELD	Torrington	Migeon Hall Group Home	DMR		$377,520	$9,739	$58,089	$135,541	$0	$116,178	$0	$0	$77,452	$0	$0	$5,808,885
8000-168	NEW HAVEN	Cheshire	Cottage A			$2,556,698	$30,464	$388,074	$1,293,581	$0	$776,149	$0	$0	$517,432	$0	$0	$38,807,430
8000-169	NEW HAVEN	Cheshire	Cottage B			$2,556,698	$32,892	$388,439	$1,294,795	$0	$776,877	$0	$0	$517,918	$0	$0	$38,843,856
8000-170	NEW HAVEN	Cheshire	Cottage C			$2,556,698	$37,383	$389,112	$1,297,041	$0	$778,224	$0	$0	$518,816	$0	$0	$38,911,223
8000-171	NEW HAVEN	Cheshire	Cottage D			$2,556,698	$39,306	$389,401	$1,298,002	$0	$778,801	$0	$0	$519,201	$0	$0	$38,940,057
8000-172	NEW HAVEN	Cheshire	Cottage E			$2,556,698	$33,743	$388,566	$1,295,221	$0	$777,132	$0	$0	$518,088	$0	$0	$38,856,617

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
8000-173	NEW HAVEN	Cheshire	Cottage F			$2,556,698	$34,785	$388,723	$1,295,742	$0	$777,445	$0	$0	$518,297	$0	$0	$38,872,254
8000-174	NEW HAVEN	Cheshire	Cottage G			$2,705,595	$40,217	$411,872	$1,372,906	$0	$823,744	$0	$0	$549,162	$0	$0	$41,187,181
	NEW HAVEN	Cheshire				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
8000-177	NEW HAVEN	Cheshire	Cottage J			$2,705,595	$42,565	$412,224	$1,374,080	$0	$824,448	$0	$0	$549,632	$0	$0	$41,222,401
8000-220	NEW HAVEN	Cheshire	Main Building			$60,292,395	$1,369,323	$9,249,258	$30,830,859	$0	$18,498,516	$0	$0	$12,332,344	$0	$0	$924,925,777
	NEW HAVEN	Cheshire				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	Cheshire				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	Cheshire				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	Cheshire				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	Cheshire				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	Meriden		Department of Transportation		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
2000-1	NEW HAVEN	Meriden	Building #1	Mulcahy Complex		$265,911	$295,659	$84,236	$280,785	$0	$168,471	$0	$0	$112,314	$0	$0	$8,423,551
2000-5	NEW HAVEN	Meriden	Building #5	Mulcahy Complex		$1,805,181	$250,000	$308,277	$1,027,590	$0	$616,554	$0	$0	$411,036	$0	$0	$30,827,709
2000-4	NEW HAVEN	Meriden	Building #4	Mulcahy Complex		$1,112,891	$1,019,457	$319,852	$1,066,174	$0	$639,704	$0	$0	$426,470	$0	$0	$31,985,221
2000-3	NEW HAVEN	Meriden	Building #3	Mulcahy Complex		$2,282,947	$150,000	$364,942	$1,216,473	$0	$729,884	$0	$0	$486,589	$0	$0	$36,494,200
2000-11	NEW HAVEN	Meriden	Building #13	Mulcahy Complex		$807,681	$72,976	$132,098	$440,328	$0	$264,197	$0	$0	$176,131	$0	$0	$13,209,849
2000-7	NEW HAVEN	Meriden	Building #7	Mulcahy Complex		$508,301	$135,987	$96,643	$322,144	$0	$193,286	$0	$0	$128,858	$0	$0	$9,664,320
2000-6	NEW HAVEN	Meriden	Building #6	Mulcahy Complex		$185,099	$68,638	$38,060	$126,868	$0	$76,121	$0	$0	$50,747	$0	$0	$3,806,048
1326-528	NEW HAVEN	Meriden	White Hall #2	Henry D. Altobello Children & Youth Center		$3,093,857	$285,646	$506,926	$1,689,752	$0	$1,013,851	$0	$0	$675,901	$0	$0	$50,692,550
1326-518	NEW HAVEN	Meriden	Gibson #1	Henry D. Altobello Children & Youth Center		$28,244	$285,646	$47,084	$156,945	$0	$94,167	$0	$0	$62,778	$0	$0	$4,708,358
1326-519	NEW HAVEN	Meriden	Garage #7A (Blue)	Henry D. Altobello Children & Youth Center		$6,918	$285,646	$43,885	$146,282	$0	$87,769	$0	$0	$58,513	$0	$0	$4,388,459
1326-511	NEW HAVEN	Meriden	Residence #5 (Gray) (DDS)	Henry D. Altobello Children & Youth Center		$126,150	$285,646	$61,769	$205,898	$0	$123,539	$0	$0	$82,359	$0	$0	$6,176,940

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
1326-517	NEW HAVEN	Meriden	Residence #7 (Blue) (DDS)	Henry D. Altobello Children & Youth Center		$140,818	$285,646	$63,970	$213,232	$0	$127,939	$0	$0	$85,293	$0	$0	$6,396,969
1326-524	NEW HAVEN	Meriden	Residence #8, Phys. Cottage (Red)	Henry D. Altobello Children & Youth Center		$126,150	$285,646	$61,769	$205,898	$0	$123,539	$0	$0	$82,359	$0	$0	$6,176,940
1326-522	NEW HAVEN	Meriden	Kimball Hall	Henry D. Altobello Children & Youth Center		$2,018,823	$285,646	$345,670	$1,152,235	$0	$691,341	$0	$0	$460,894	$0	$0	$34,567,036
1326-527	NEW HAVEN	Meriden	Residence #9 (DDS)	Henry D. Altobello Children & Youth Center		$79,304	$285,646	$54,743	$182,475	$0	$109,485	$0	$0	$72,990	$0	$0	$5,474,255
	NEW HAVEN	Meriden		Connecticut Police Academy		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	Meriden		Connecticut Police Academy		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	Middlefield		Connecticut Police Academy		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7001-17	MIDDLESEX	Middletown	Vinal Regional Vocational Technical School	Vinal Technical High School		$36,834,993	$1,912,239	$5,812,085	$19,373,616	$0	$11,624,169	$0	$0	$7,749,446	$0	$0	$581,208,473
7001-171	MIDDLESEX	Middletown	Vinal Red Garage/Service Build	Vinal Technical High School		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	Middletown				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	Meriden		Department of Transportation		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	Wallingford		Department of Transportation		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	North Haven		Department of Transportation		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	North Haven		Department of Transportation		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	Hamden				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	Hamden				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	Branford		Department of		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
				Transportation													
	NEW HAVEN	Branford		Department of Transportation		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	Branford		Department of Transportation		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	Branford		Department of Transportation		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	Branford		Department of Transportation		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
3400-15	NEW HAVEN	Guilford	Henry Whitfield House	Henry Whitfield House		$304,067	$210,111	$77,127	$257,089	$0	$154,253	$0	$0	$102,836	$0	$0	$7,712,671
3400-16	NEW HAVEN	Guilford	Whitfield Barn	Henry Whitfield House		$154,929	$285,646	$66,086	$220,287	$0	$132,172	$0	$0	$88,115	$0	$0	$6,608,623
3400-17	NEW HAVEN	Guilford	Whitfield Cottage	Henry Whitfield House		$20,455	$285,646	$45,915	$153,050	$0	$91,830	$0	$0	$61,220	$0	$0	$4,591,512
	NEW HAVEN	Guilford		Department of Transportation		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
5000-71	NEW HAVEN	Guilford	Maintenance Garage	Department of Transportation		$6,881,765	$159,479	$1,056,187	$3,520,622	$0	$2,112,373	$0	$0	$1,408,249	$0	$0	$105,618,656
5000-538	NEW HAVEN	Guilford	Salt Shed	Department of Transportation		$253,302	$285,646	$80,842	$269,474	$0	$161,684	$0	$0	$107,790	$0	$0	$8,084,220
	NEW HAVEN	Madison		Mosquito Control		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Danbury				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Bridgeport		DMR SW Region Regional Office		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Bridgeport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7302-11	HARTFORD	Farmington	L Laboratory	UCONN Health Center		$97,685,324	$38,839,164	$20,478,673	$47,783,571	$0	$40,957,346	$0	$0	$27,304,898	$0	$0	$2,047,867,319
	HARTFORD	Hartford		Brainard Airport		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
1326-518	NEW HAVEN	Meriden	Switch House #16	Henry D. Altobello		$28,244	$285,646	$47,084	$156,945	$0	$94,167	$0	$0	$62,778	$0	$0	$4,708,358

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
				Children & Youth Center													
1326-513	NEW HAVEN	Meriden	Storage Shed #14A	Henry D. Altobello Children & Youth Center		$2,963	$285,646	$43,291	$144,305	$0	$86,583	$0	$0	$57,722	$0	$0	$4,329,143
4122-114122	HARTFORD	Newington	79 Mountain Road			$2,138,877	$19,417	$323,744	$755,403	$0	$647,488	$0	$0	$431,659	$0	$0	$32,374,405
4122-144122	HARTFORD	Newington	83 Mountain Road			$2,377,968	$17,497	$359,320	$838,413	$0	$718,639	$0	$0	$479,093	$0	$0	$35,931,969
4122-194122	HARTFORD	Newington	242 Mountain Road			$296,952	$1,399	$44,753	$104,423	$0	$89,505	$0	$0	$59,670	$0	$0	$4,475,262
5000-575	HARTFORD	Newington	Bus Shelter			$4,649	$285,646	$43,544	$101,603	$0	$87,089	$0	$0	$58,059	$0	$0	$4,354,426
1326-7103	HARTFORD	Newington	Chief State Attorney's Office			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
5000-754	MIDDLESEX	Clinton	Passenger Shelter with Wheelchair Lift			$5,535	$285,646	$43,677	$145,591	$0	$87,354	$0	$0	$58,236	$0	$0	$4,367,718
5000-736	MIDDLESEX	Old Saybrook	Salt Shed			$289,496	$285,646	$86,271	$287,571	$0	$172,543	$0	$0	$115,028	$0	$0	$8,627,130
5000-185	MIDDLESEX	Old Saybrook	Maintenance Repair Garage			$11,039,690	$771,793	$1,771,722	$5,905,741	$0	$3,543,445	$0	$0	$2,362,296	$0	$0	$177,172,236
5000-470	MIDDLESEX	Old Saybrook	Salt Bin			$14,760	$285,646	$45,061	$150,203	$0	$90,122	$0	$0	$60,081	$0	$0	$4,506,099
3100-6837	MIDDLESEX	Essex	Grain Building			$11,038	$285,646	$44,503	$148,342	$0	$89,005	$0	$0	$59,337	$0	$0	$4,450,257
3100-6832	MIDDLESEX	Essex	Witch Hazel Building			$827,823	$285,646	$167,020	$556,735	$0	$334,041	$0	$0	$222,694	$0	$0	$16,702,043
3100-6836	MIDDLESEX	Essex	Yellow Label Building			$11,038	$285,646	$44,503	$148,342	$0	$89,005	$0	$0	$59,337	$0	$0	$4,450,257
5000-7236	MIDDLESEX	Chester	Storage			$32,136	$285,646	$47,667	$158,891	$0	$95,335	$0	$0	$63,556	$0	$0	$4,766,732
3100-1781	MIDDLESEX	Killingworth	Barn			$3,891	$285,646	$43,431	$144,769	$0	$86,861	$0	$0	$57,907	$0	$0	$4,343,061
3100-2130	MIDDLESEX	Killingworth	Mitchell House			$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	Killingworth				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
3100-1662	MIDDLESEX	Durham	Guest House			$6,806	$285,646	$43,868	$146,226	$0	$87,736	$0	$0	$58,490	$0	$0	$4,386,779
3100-1661	MIDDLESEX	Durham	Family Residence			$90,588	$285,646	$56,435	$188,117	$0	$112,870	$0	$0	$75,247	$0	$0	$5,643,507
5000-7106	MIDDLESEX	Haddam	Salt Shed			$39,901	$285,646	$48,832	$162,774	$0	$97,664	$0	$0	$65,109	$0	$0	$4,883,208
3100-72	MIDDLESEX	Haddam	Oil House			$3,842	$285,646	$43,423	$144,744	$0	$86,846	$0	$0	$57,898	$0	$0	$4,342,322
3100-73	MIDDLESEX	Haddam	Headquarters Barn			$15,035	$285,646	$45,102	$150,341	$0	$90,204	$0	$0	$60,136	$0	$0	$4,510,225
5000-34	MIDDLESEX	Haddam	Repair Garage and Office			$279,451	$116,867	$59,448	$198,159	$0	$118,896	$0	$0	$79,264	$0	$0	$5,944,780
5000-798	MIDDLESEX	Haddam	Maintenance Garage			$210,816	$109,611	$48,064	$160,214	$0	$96,128	$0	$0	$64,085	$0	$0	$4,806,406
5000-193	MIDDLESEX	Haddam	Maintenance Garage			$2,534,295	$209,998	$411,644	$1,372,146	$0	$823,288	$0	$0	$548,859	$0	$0	$41,164,393
3100-175	MIDDLESEX	Haddam	Barn			$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
8000-335	MIDDLESEX	Haddam	Old Jail- Haddam			$1,591,518	$285,646	$281,575	$938,582	$0	$563,149	$0	$0	$375,433	$0	$0	$28,157,468
3100-111	MIDDLESEX	East Haddam	Mitchel Pond Building			$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
3100-106	MIDDLESEX	East Haddam	Caretakers House			$93,111	$285,646	$56,814	$189,379	$0	$113,627	$0	$0	$75,751	$0	$0	$5,681,359
3100-107	MIDDLESEX	East Haddam	Maintenance SHop			$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
3100-653	MIDDLESEX	Middletown	Caretakers House			$89,722	$285,646	$56,305	$187,684	$0	$112,611	$0	$0	$75,074	$0	$0	$5,630,529
3100-652	MIDDLESEX	Middletown	Storage Barn			$36,027	$285,646	$48,251	$160,837	$0	$96,502	$0	$0	$64,335	$0	$0	$4,825,098
3100-651	MIDDLESEX	Middletown	Garage Workshop			$47,332	$10,555	$8,683	$28,943	$0	$17,366	$0	$0	$11,577	$0	$0	$868,291
4400-57	MIDDLESEX	Middletown	Cottage 18 (Brooks Cottage)			$11,506	$285,646	$44,573	$148,576	$0	$89,146	$0	$0	$59,430	$0	$0	$4,457,286
4400-55	MIDDLESEX	Middletown	Cottage 18 Shed (Brooks Shed)			$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
4400-127	MIDDLESEX	Middletown	Water Filtration Point			$1,071,717	$285,646	$203,604	$678,682	$0	$407,209	$0	$0	$271,473	$0	$0	$20,360,448
3100-296	HARTFORD	Berlin	Garage - Office - Residence			$35,191	$82,398	$17,638	$41,156	$0	$35,277	$0	$0	$23,518	$0	$0	$1,763,835
3100-43	HARTFORD	Burlington	Foreman's Reside			$80,690	$285,646	$54,950	$128,218	$0	$109,901	$0	$0	$73,267	$0	$0	$5,495,049
3100-1915	HARTFORD	Bloomfield	Pavillion			$937	$285,646	$42,987	$100,304	$0	$85,975	$0	$0	$57,317	$0	$0	$4,298,744
3100-2388	HARTFORD	Avon	Radio			$10,212	$285,646	$44,379	$103,550	$0	$88,757	$0	$0	$59,172	$0	$0	$4,437,866
3100-1913	HARTFORD	Avon	Cistern			$937	$285,646	$42,987	$100,304	$0	$85,975	$0	$0	$57,317	$0	$0	$4,298,744
3100-565	HARTFORD	Farmington	Tarplin Barn			$13,252	$285,646	$44,835	$104,614	$0	$89,669	$0	$0	$59,780	$0	$0	$4,483,473
3100-570	HARTFORD	Farmington	Oil Shed			$790	$285,646	$42,965	$100,253	$0	$85,931	$0	$0	$57,287	$0	$0	$4,296,549
5000-404	HARTFORD	Farmington	Salt Shed			$25,136	$285,646	$46,617	$108,774	$0	$93,235	$0	$0	$62,156	$0	$0	$4,661,734
7302-7817	HARTFORD	Farmington	400 Farmington Ave			$8,861,040	$285,646	$1,372,003	$3,201,340	$0	$2,744,006	$0	$0	$1,829,337	$0	$0	$137,200,296
9001-10	HARTFORD	Hartford	GA 14 And JD Courthouse			$24,216,228	$668,953	$3,732,777	$8,709,813	$0	$7,465,554	$0	$0	$4,977,036	$0	$0	$373,277,708
4122-7102	HARTFORD	Manchester	Spring Street Cla			$326,548	$14,319	$51,130	$119,303	$0	$102,260	$0	$0	$68,173	$0	$0	$5,113,005
4122-94123	HARTFORD	Manchester	West Center Street			$200,316	$285,646	$72,894	$170,087	$0	$145,789	$0	$0	$97,192	$0	$0	$7,289,426
7001-91	HARTFORD	Manchester				$914,020	$285,646	$179,950	$419,883	$0	$359,900	$0	$0	$239,933	$0	$0	$17,994,992
4122-164122	HARTFORD	Bloomfield	52 Brown Street			$183,113	$285,646	$70,314	$164,066	$0	$140,628	$0	$0	$93,752	$0	$0	$7,031,385
5000-7129	HARTFORD	Canton	Werner Woods Barn			$5,930	$285,646	$43,736	$102,052	$0	$87,473	$0	$0	$58,315	$0	$0	$4,373,636
	WINDHAM	Putnam				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	WINDHAM	Putnam				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	WINDHAM	Killingly				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	WINDHAM	Killingly				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	WINDHAM	Killingly				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	WINDHAM	Killingly				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	WINDHAM	Killingly				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	WINDHAM	Killingly				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	WINDHAM	Killingly				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	WINDHAM	Killingly				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	WINDHAM	Killingly				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	WINDHAM	Killingly				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	WINDHAM	Brooklyn				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	WINDHAM	Brooklyn				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		UConn - Spring Hill Farm	Greenhouse	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		UConn - Spring Hill Farm		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7301-211	TOLLAND	Mansfield	0327 Eddy Hall, Alum Quad 3	University of Connecticut - Storrs Campus	Residence	$8,991,223	$22,214	$1,352,015	$3,154,703	$0	$2,704,031	$0	$0	$1,802,687	$0	$0	$135,201,549
7301-149	TOLLAND	Mansfield	0235 Arjona Building (Humanities)	University of Connecticut - Storrs Campus	Education	$6,071,556	$866,781	$1,040,751	$2,428,418	$0	$2,081,501	$0	$0	$1,387,667	$0	$0	$104,075,054
7301-150	TOLLAND	Mansfield	0236 Monteith Building (Soc. Sciences)	University of Connecticut - Storrs Campus	Education	$8,167,831	$1,125,402	$1,393,985	$3,252,632	$0	$2,787,970	$0	$0	$1,858,647	$0	$0	$139,398,495
7301-151	TOLLAND	Mansfield	0237 Andre Schenker(Ss) Lect Hall	University of Connecticut - Storrs Campus	Education	$1,315,497	$25,135	$201,095	$469,221	$0	$402,190	$0	$0	$268,126	$0	$0	$20,109,479
7301-231	TOLLAND	Mansfield	0349 Bousfield, W A Building (Psych)	University of Connecticut - Storrs Campus	Education	$19,421,037	$4,392,806	$3,572,076	$8,334,845	$0	$7,144,153	$0	$0	$4,762,769	$0	$0	$357,207,645
7301-10	TOLLAND	Mansfield	0012 House 29	University of Connecticut - Storrs Campus	Office	$163,110	$3,469	$24,987	$58,302	$0	$49,974	$0	$0	$33,316	$0	$0	$2,498,678
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7301-7216	TOLLAND	Mansfield	0434 Information Technology Building	University of Connecticut - Storrs Campus	Education	$32,242,243	$5,387,612	$5,644,478	$13,170,449	$0	$11,288,957	$0	$0	$7,525,971	$0	$0	$564,447,835
7301-1	TOLLAND	Mansfield	0001 Storrs Hall	University of Connecticut - Storrs Campus	Education	$8,990,922	$635,284	$1,443,931	$3,369,172	$0	$2,887,862	$0	$0	$1,925,241	$0	$0	$144,393,091
7301-55	TOLLAND	Mansfield	0131 Wood Hall	University of Connecticut - Storrs Campus	Education	$3,094,075	$404,614	$524,803	$1,224,541	$0	$1,049,607	$0	$0	$699,738	$0	$0	$52,480,332
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7301-25	TOLLAND	Mansfield	0031 Landscaping Bldg	University of Connecticut - Storrs Campus	Other	$159,961	$1,630,154	$268,517	$626,540	$0	$537,034	$0	$0	$358,023	$0	$0	$26,851,723
7301-169	TOLLAND	Mansfield	0256 Towers Dorms, Building 4 (A-D)	University of Connecticut - Storrs Campus	Residence	$11,103,531	$161,764	$1,689,794	$3,942,853	$0	$3,379,589	$0	$0	$2,253,059	$0	$0	$168,979,428
7301-7200	TOLLAND	Mansfield	0455 Woodhouse Hall, Hilltop Apt. 22	University of Connecticut - Storrs Campus	Residence	$2,400,179	$285,646	$402,874	$940,039	$0	$805,748	$0	$0	$537,165	$0	$0	$40,287,375
7301-7194	TOLLAND	Mansfield	0449 Crandall Hall, Hilltop Apt. 16	University of Connecticut - Storrs Campus	Residence	$3,183,767	$285,646	$520,412	$1,214,294	$0	$1,040,824	$0	$0	$693,883	$0	$0	$52,041,192
7301-226	TOLLAND	Mansfield	0344 Hale Hall	University of Connecticut - Storrs Campus	Education	$7,658,175	$104,692	$1,164,430	$2,717,003	$0	$2,328,860	$0	$0	$1,552,573	$0	$0	$116,442,997
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7301-7149	TOLLAND	Mansfield	0148 Field House/Physical Education	University of Connecticut - Storrs Campus	Sports/Gymnasium	$28,505,074	$2,236,184	$4,611,189	$10,759,440	$0	$9,222,377	$0	$0	$6,148,252	$0	$0	$461,118,873
7301-1151	TOLLAND	Mansfield	0435 Visitors Center / Lodewick	University of Connecticut - Storrs Campus	Office	$2,069,652	$127,140	$329,519	$768,877	$0	$659,038	$0	$0	$439,358	$0	$0	$32,951,886
7301-75	TOLLAND	Mansfield	0151 New London Hall, Nc 3	University of Connecticut - Storrs Campus	Residence	$3,005,638	$23,592	$454,385	$1,060,231	$0	$908,769	$0	$0	$605,846	$0	$0	$45,438,450
7301-77	TOLLAND	Mansfield	0153 Windham Hall, Nc 5	University of Connecticut - Storrs Campus	Residence	$3,005,638	$24,700	$454,551	$1,060,618	$0	$909,101	$0	$0	$606,068	$0	$0	$45,455,065

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
7301-79	TOLLAND	Mansfield	0155 Middlesex Hall, Nc 7	University of Connecticut - Storrs Campus	Residence	$2,825,056	$22,271	$427,099	$996,564	$0	$854,198	$0	$0	$569,465	$0	$0	$42,709,897
7301-81	TOLLAND	Mansfield	0157 Hurley Hall, Nc 9	University of Connecticut - Storrs Campus	Residence	$2,574,890	$33,222	$391,217	$912,839	$0	$782,433	$0	$0	$521,622	$0	$0	$39,121,671
7301-82	TOLLAND	Mansfield	0158 Baldwin Hall, Nc 10	University of Connecticut - Storrs Campus	Residence	$2,541,360	$9,557	$382,638	$892,821	$0	$765,275	$0	$0	$510,183	$0	$0	$38,263,762
7301-80	TOLLAND	Mansfield	0156 Tolland Hall, Nc 8	University of Connecticut - Storrs Campus	Residence	$3,005,638	$24,249	$454,483	$1,060,460	$0	$908,966	$0	$0	$605,977	$0	$0	$45,448,293
7301-78	TOLLAND	Mansfield	0154 Litchfield Hall, Nc 6	University of Connecticut - Storrs Campus	Residence	$3,186,218	$24,275	$481,574	$1,123,673	$0	$963,148	$0	$0	$642,099	$0	$0	$48,157,401
7301-76	TOLLAND	Mansfield	0152 Fairfield Hall, Nc 4	University of Connecticut - Storrs Campus	Residence	$3,005,638	$18,167	$453,571	$1,058,331	$0	$907,141	$0	$0	$604,761	$0	$0	$45,357,064
7301-74	TOLLAND	Mansfield	0150 New Haven Hall, Nc 2	University of Connecticut - Storrs Campus	Residence	$3,031,330	$19,960	$457,693	$1,067,951	$0	$915,387	$0	$0	$610,258	$0	$0	$45,769,347
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7301-217	TOLLAND	Mansfield	0331C Math Sciences	University of Connecticut - Storrs Campus	Education	$15,865,841	$15,789,397	$4,748,286	$11,079,333	$0	$9,496,571	$0	$0	$6,331,048	$0	$0	$474,828,564
7301-216	TOLLAND	Mansfield	0331B Physics Building	University of Connecticut - Storrs Campus	Education	$19,741,375	$4,913,574	$3,698,242	$8,629,232	$0	$7,396,485	$0	$0	$4,930,990	$0	$0	$369,824,239
7301-97	TOLLAND	Mansfield	0174 Pathology Lab	University of Connecticut - Storrs Campus	Laboratory	$1,704,208	$712,063	$362,441	$845,695	$0	$724,881	$0	$0	$483,254	$0	$0	$36,244,059
7301-165	TOLLAND	Mansfield	0252 Torrey Life Sciences	University of Connecticut - Storrs Campus	Laboratory	$33,162,950	$4,684,335	$5,677,093	$13,246,550	$0	$11,354,185	$0	$0	$7,569,457	$0	$0	$567,709,271
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7301-7229	TOLLAND	Mansfield	0473 Husky Village/Greek E1,E2	University of Connecticut - Storrs Campus	Residence	$1,073,329	$9,110	$162,366	$378,854	$0	$324,732	$0	$0	$216,488	$0	$0	$16,236,589
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7301-204	TOLLAND	Mansfield	0317 Motor Pool & Vehicle Maintenance	University of Connecticut - Storrs Campus	Maintenance/Repair Shop	$699,381	$916,510	$242,384	$565,562	$0	$484,767	$0	$0	$323,178	$0	$0	$24,238,357

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
7301-286	TOLLAND	Mansfield	1042 Northwood Apartments, Bldg 7	University of Connecticut - Storrs Campus		$634,559	$285,646	$138,031	$322,072	$0	$276,062	$0	$0	$184,041	$0	$0	$13,803,077
7301-287	TOLLAND	Mansfield	1043 Northwood Apartments, Bldg 8	University of Connecticut - Storrs Campus		$622,762	$285,646	$136,261	$317,943	$0	$272,523	$0	$0	$181,682	$0	$0	$13,626,128
7301-284	TOLLAND	Mansfield	1040 Northwood Apartments, Bldg 5	University of Connecticut - Storrs Campus		$656,308	$1,633	$98,691	$230,280	$0	$197,382	$0	$0	$131,588	$0	$0	$9,869,123
7301-285	TOLLAND	Mansfield	1041 Northwood Apartments, Bldg 6	University of Connecticut - Storrs Campus		$656,308	$285,646	$141,293	$329,684	$0	$282,586	$0	$0	$188,391	$0	$0	$14,129,314
7301-282	TOLLAND	Mansfield	1038 Northwood Apartments, Bldg 3	University of Connecticut - Storrs Campus		$656,308	$285,646	$141,293	$329,684	$0	$282,586	$0	$0	$188,391	$0	$0	$14,129,314
7301-283	TOLLAND	Mansfield	1039 Northwood Apartments, Bldg 4	University of Connecticut - Storrs Campus		$656,308	$285,646	$141,293	$329,684	$0	$282,586	$0	$0	$188,391	$0	$0	$14,129,314
5000-504	TOLLAND	Union	Inspection Pit	Union Weigh and Inspection Station	Weigh and Inspection Station	$207,499	$285,646	$73,972	$172,601	$0	$147,944	$0	$0	$98,629	$0	$0	$7,397,178
5000-2	TOLLAND	Union	Maintenance Garage	Union Salt Storage and Garage		$289,626	$115,360	$60,748	$141,745	$0	$121,496	$0	$0	$80,997	$0	$0	$6,074,788
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
2201-8013	NEW LONDON	East Lyme	Nett Hall	Camp Rell	Other	$1,439,562	$285,646	$258,781	$862,604	$0	$517,562	$0	$0	$345,042	$0	$0	$25,878,120
2201-7106	NEW LONDON	East Lyme	Training Shelter#2	Not Part Of A Facility	Other	$52,245	$285,646	$50,684	$168,945	$0	$101,367	$0	$0	$67,578	$0	$0	$5,068,362
2201-209	NEW LONDON	East Lyme	In Door Firearms Training Simulator	Camp Rell	Military	$1,241,739	$1,757	$186,524	$621,748	$0	$373,049	$0	$0	$248,699	$0	$0	$18,652,442
2201-205	NEW LONDON	East Lyme	Barracks - 200 Person	Camp Rell	Troop Barracks	$1,503,265	$2,725	$225,898	$752,995	$0	$451,797	$0	$0	$301,198	$0	$0	$22,589,844
2201-206	NEW LONDON	East Lyme	Barracks - 160 Person	Camp Rell	Troop Barracks	$1,444,791	$285,646	$259,566	$865,219	$0	$519,131	$0	$0	$346,087	$0	$0	$25,956,562
2201-207	NEW LONDON	East Lyme	Barrack - 160 Person	Camp Rell	Troop Barracks	$1,189,074	$285,646	$221,208	$737,360	$0	$442,416	$0	$0	$294,944	$0	$0	$22,120,807
2201-152	NEW LONDON	East Lyme	Mess Hall	Camp Rell	Military	$87,519	$285,646	$55,975	$186,583	$0	$111,950	$0	$0	$74,633	$0	$0	$5,597,477
2201-151	NEW LONDON	East Lyme	Class Room	Camp Rell	Military	$148,605	$285,646	$65,138	$217,125	$0	$130,275	$0	$0	$86,850	$0	$0	$6,513,763
2201-194	NEW LONDON	East Lyme	Female OCS Barracks	Camp Rell	Troop Barracks	$58,342	$285,646	$51,598	$171,994	$0	$103,196	$0	$0	$68,798	$0	$0	$5,159,818
2201-195	NEW LONDON	East Lyme	Classroom	Camp Rell	Education	$87,519	$285,646	$55,975	$186,583	$0	$111,950	$0	$0	$74,633	$0	$0	$5,597,477

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2201-196	NEW LONDON	East Lyme	Classroom	Camp Rell	Education	$87,519	$285,646	$55,975	$186,583	$0	$111,950	$0	$0	$74,633	$0	$0	$5,597,477
2201-197	NEW LONDON	East Lyme	169th Male OCS Barracks	Camp Rell	Troop Barracks	$58,342	$285,646	$51,598	$171,994	$0	$103,196	$0	$0	$68,798	$0	$0	$5,159,818
2201-198	NEW LONDON	East Lyme	169th Male OCS Barracks	Camp Rell	Troop Barracks	$58,342	$285,646	$51,598	$171,994	$0	$103,196	$0	$0	$68,798	$0	$0	$5,159,818
2201-199	NEW LONDON	East Lyme	TAC- Office	Camp Rell	Military	$170,595	$285,646	$68,436	$228,121	$0	$136,872	$0	$0	$91,248	$0	$0	$6,843,618
2201-178	NEW LONDON	East Lyme	Admin Office	Camp Rell	Troop Barracks	$91,167	$285,646	$56,522	$188,407	$0	$113,044	$0	$0	$75,363	$0	$0	$5,652,198
2201-202	NEW LONDON	East Lyme	169th Leadership Admin. Office	Camp Rell	Troop Barracks	$87,519	$285,646	$55,975	$186,583	$0	$111,950	$0	$0	$74,633	$0	$0	$5,597,477
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Hampton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Hampton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Hampton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	East Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	East Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	East Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	East Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	East Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	East Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	East Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	East Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	NEW HAVEN	East Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	East Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	East Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	East Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	East Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	East Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	WINDHAM	Plainfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	WINDHAM	Plainfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	WINDHAM	Plainfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	WINDHAM	Plainfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	WINDHAM	Plainfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	WINDHAM	Plainfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	WINDHAM	Plainfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	Hamden				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	Hamden				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	Hamden				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	Hamden				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	Milford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	Milford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	FAIRFIELD	Newtown				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Newtown				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Newtown				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Newtown				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Newtown				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Newtown				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Newtown				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Stratford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Stratford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Norwalk				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Norwalk				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Norwalk				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Stamford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Stamford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Stamford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Stamford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Stamford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Stamford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Stamford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	WINDHAM	Ashford				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Vernon		Belding Wildlife Area		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Glastonbury				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Glastonbury				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	Derby				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	LITCHFIELD	Cornwall				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	LITCHFIELD	Cornwall				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	LITCHFIELD	Cornwall				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	LITCHFIELD	Cornwall				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	LITCHFIELD	Cornwall				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	LITCHFIELD	Cornwall				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	LITCHFIELD	Cornwall				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	LITCHFIELD	Cornwall				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	LITCHFIELD	Cornwall				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	LITCHFIELD	Cornwall				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
2000-514	WINDHAM	Thompson	Thompson Radio Tower	Thompson Radio Tower	Communications	$322,145	$285,646	$91,169	$212,727	$0	$182,337	$0	$0	$121,558	$0	$0	$9,116,860
2000-507	TOLLAND	Tolland	Radio Tower	Troop C	Communications	$359,526	$218,098	$86,644	$202,168	$0	$173,287	$0	$0	$115,525	$0	$0	$8,664,354
5000-439	TOLLAND	Willington	Salt Shed	Willington DOT Garage	Salt Shed	$1,154	$285,646	$43,020	$100,380	$0	$86,040	$0	$0	$57,360	$0	$0	$4,301,996

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	TOLLAND	Willington	Cell Tower	Willington DOT Cell Tower	Communications	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
5000-697	TOLLAND	Willington	Bus Shelter	Willington I-84 Commuter Lot	Shelter	$707	$285,646	$42,953	$100,223	$0	$85,906	$0	$0	$57,271	$0	$0	$4,295,291
3100-2365	TOLLAND	Vernon	Cabin	Belding Wildlife Area		$9,544	$285,646	$44,278	$103,316	$0	$88,557	$0	$0	$59,038	$0	$0	$4,427,846
	TOLLAND	Hebron	Gay City Supervisor Shed	Gay City State Park	Shed	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Hebron		Gay City State Park		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
5000-7111	TOLLAND	Hebron	Salt Shed	DOT Hebron Salt Storage	Salt Shed	$815,672	$285,646	$165,198	$385,461	$0	$330,395	$0	$0	$220,264	$0	$0	$16,519,767
5000-4184	TOLLAND	Hebron	Personnel Shelter	DOT Hebron Salt Storage	Shelter	$8,646	$285,646	$44,144	$103,002	$0	$88,288	$0	$0	$58,858	$0	$0	$4,414,380
	TOLLAND	Mansfield	Barn	University of Connecticut - Depot	Barn	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
3100-345	TOLLAND	Mansfield	Toilet Building	Mansfield Hollow State Park	Toilets	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	WINDHAM	Killingly				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	WINDHAM	Killingly				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	WINDHAM	Killingly				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	WINDHAM	Killingly				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	WINDHAM	Killingly				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	WINDHAM	Killingly				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	WINDHAM	Killingly				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Southington				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Southington				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Enfield		Armory		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
2201-90	HARTFORD	Windsor Locks	Ordinance Maint			$1,293,446	$285,646	$236,864	$552,682	$473,728	$473,728	$0	$0	$315,818	$0	$0	$23,686,379
2201-118	HARTFORD	Windsor Locks				$152,604	$285,646	$65,738	$153,388	$131,475	$131,475	$0	$0	$87,650	$0	$0	$6,573,753
2201-112	HARTFORD	Windsor Locks	Classroom Administrative			$73,296	$285,646	$53,841	$125,630	$107,683	$107,683	$0	$0	$71,788	$0	$0	$5,384,131
2201-111	HARTFORD	Windsor Locks	Barracks			$153,069	$285,646	$65,807	$153,550	$131,614	$131,614	$0	$0	$87,743	$0	$0	$6,580,724
5000-732	HARTFORD	Windsor	Salt Shed			$677,671	$285,646	$144,498	$337,161	$288,995	$288,995	$0	$0	$192,664	$0	$0	$14,449,764
	HARTFORD	Windsor				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
3601-12	HARTFORD	Windsor	Headhouse Greenhouse			$216,874	$285,646	$75,378	$175,882	$150,756	$150,756	$0	$0	$100,504	$0	$0	$7,537,800
8102-484	HARTFORD	East Windsor	Maple	State Receiving Home		$1,723,729	$20,632	$261,654	$610,526	$523,308	$523,308	$0	$0	$348,872	$0	$0	$26,165,415
8102-485	HARTFORD	East Windsor	Spruce	State Receiving Home		$1,723,729	$7,375	$259,666	$605,886	$519,331	$519,331	$0	$0	$346,221	$0	$0	$25,966,560
8102-482	HARTFORD	East Windsor	Oak	State Receiving Home		$1,723,728	$8,783	$259,877	$606,379	$519,753	$519,753	$0	$0	$346,502	$0	$0	$25,987,665
8102-72	HARTFORD	East Windsor	Education/Recreation	State Receiving Home		$8,426,236	$142,717	$1,285,343	$2,999,134	$2,570,686	$2,570,686	$0	$0	$1,713,791	$0	$0	$128,534,295
8102-75	HARTFORD	East Windsor	Old Administration/ Dining Hall	State Receiving Home		$3,668,181	$74,652	$561,425	$1,309,992	$1,122,850	$1,122,850	$0	$0	$748,567	$0	$0	$56,142,495
8102-7964	HARTFORD	East Windsor	Shipping and Recieving	State Receiving Home		$23,363	$65,233	$13,289	$31,009	$26,579	$26,579	$0	$0	$17,719	$0	$0	$1,328,940
8102-79	HARTFORD	East Windsor	Willow Hall	State Receiving Home		$130,681	$22,094	$22,916	$53,471	$45,833	$45,833	$0	$0	$30,555	$0	$0	$2,291,625

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
8102-7965	HARTFORD	East Windsor	Pool pump house	State Receiving Home		$191,475	$285,646	$71,568	$166,992	$143,136	$143,136	$0	$0	$95,424	$0	$0	$7,156,817
	HARTFORD	East Windsor		Department of Transportation		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Windsor		Department of Transportation		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Windsor		Department of Transportation		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Enfield				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Enfield				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
2201-91	HARTFORD	Windsor Locks	Wood Shop			$209,549	$285,646	$74,279	$173,318	$148,559	$148,559	$0	$0	$99,039	$0	$0	$7,427,932
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	Southbury	50,000 Gal. Water Tower	Southbury Training School		$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
4101-109	NEW HAVEN	Southbury	Pump House 1	Southbury Training School		$20,562	$285,646	$45,931	$153,104	$91,862	$91,862	$0	$0	$61,242	$0	$0	$4,593,118
4104-105	NEW HAVEN	Southbury	Power House	Southbury Training School		$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
4101-54	NEW HAVEN	Southbury	Garden House	Southbury Training School		$24,146	$285,646	$46,469	$154,896	$92,938	$92,938	$0	$0	$61,958	$0	$0	$4,646,884
4101-56	NEW HAVEN	Southbury	Green House	Southbury Training School		$190,530	$285,646	$71,426	$238,088	$142,853	$142,853	$0	$0	$95,235	$0	$0	$7,142,644
4101-126	NEW HAVEN	Southbury	Staff House 2	Southbury Training School		$107,149	$285,646	$58,919	$196,398	$117,839	$117,839	$0	$0	$78,559	$0	$0	$5,891,932
4101-55	NEW HAVEN	Southbury	Gate House	Southbury Training School		$74,477	$285,646	$54,018	$180,061	$108,037	$108,037	$0	$0	$72,025	$0	$0	$5,401,842
4101-17	NEW HAVEN	Southbury	Cottage 7	Southbury Training School		$302,094	$285,646	$88,161	$293,870	$176,322	$176,322	$0	$0	$117,548	$0	$0	$8,816,097
4101-18	NEW HAVEN	Southbury	Cottage 7a	Southbury Training School		$590,453	$285,646	$131,415	$438,050	$262,830	$262,830	$0	$0	$175,220	$0	$0	$13,141,494
4101-60	NEW HAVEN	Southbury	Housekeeping Store	Southbury Training School		$182,682	$285,646	$70,249	$234,164	$140,498	$140,498	$0	$0	$93,666	$0	$0	$7,024,921
4101-76	NEW HAVEN	Southbury	P4-Thompson Hall	Southbury Training School		$1,347,442	$285,646	$244,963	$816,544	$489,927	$489,927	$0	$0	$326,618	$0	$0	$24,496,329
4101-122	NEW HAVEN	Southbury	SP Pump House	Southbury Training School		$10,488	$285,646	$44,420	$148,067	$88,840	$88,840	$0	$0	$59,227	$0	$0	$4,442,013
4101-133	NEW HAVEN	Southbury	Staff House 11	Southbury Training School		$91,568	$285,646	$56,582	$188,607	$113,164	$113,164	$0	$0	$75,443	$0	$0	$5,658,207
4101-478	NEW HAVEN	Southbury	Garage 2	Southbury Training School		$15,092	$285,646	$45,111	$150,369	$90,221	$90,221	$0	$0	$60,148	$0	$0	$4,511,066
4101-52	NEW HAVEN	Southbury	Garage for Staff House	Southbury Training School		$21,731	$285,646	$46,107	$153,689	$92,213	$92,213	$0	$0	$61,475	$0	$0	$4,610,661

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4101-77	NEW HAVEN	Southbury	Personnel Village 2	Southbury Training School		$38,256	$285,646	$48,585	$161,951	$97,171	$97,171	$0	$0	$64,781	$0	$0	$4,858,538
4101-79	NEW HAVEN	Southbury	Personnel Village 4	Southbury Training School		$76,514	$285,646	$54,324	$181,080	$108,648	$108,648	$0	$0	$72,432	$0	$0	$5,432,401
4101-80	NEW HAVEN	Southbury	Personnel Village 5	Southbury Training School		$76,514	$285,646	$54,324	$181,080	$108,648	$108,648	$0	$0	$72,432	$0	$0	$5,432,401
4101-81	NEW HAVEN	Southbury	Personnel Village 6	Southbury Training School		$76,514	$285,646	$54,324	$181,080	$108,648	$108,648	$0	$0	$72,432	$0	$0	$5,432,401
4101-82	NEW HAVEN	Southbury	Personnel Village 7	Southbury Training School		$76,514	$285,646	$54,324	$181,080	$108,648	$108,648	$0	$0	$72,432	$0	$0	$5,432,401
4101-87	NEW HAVEN	Southbury	Personnel Village 16	Southbury Training School		$76,514	$285,646	$54,324	$181,080	$108,648	$108,648	$0	$0	$72,432	$0	$0	$5,432,401
4101-88	NEW HAVEN	Southbury	Personnel Village 17	Southbury Training School		$76,514	$285,646	$54,324	$181,080	$108,648	$108,648	$0	$0	$72,432	$0	$0	$5,432,401
4101-89	NEW HAVEN	Southbury	Personnel Village 18	Southbury Training School		$38,256	$285,646	$48,585	$161,951	$97,171	$97,171	$0	$0	$64,781	$0	$0	$4,858,538
4101-90	NEW HAVEN	Southbury	Personnel Village 19	Southbury Training School		$76,514	$285,646	$54,324	$181,080	$108,648	$108,648	$0	$0	$72,432	$0	$0	$5,432,401
4101-94	NEW HAVEN	Southbury	Personnel Village 23	Southbury Training School		$127,599	$285,646	$61,987	$206,622	$123,973	$123,973	$0	$0	$82,649	$0	$0	$6,198,670
4101-83	NEW HAVEN	Southbury	Personnel Village 12	Southbury Training School		$76,514	$285,646	$54,324	$181,080	$108,648	$108,648	$0	$0	$72,432	$0	$0	$5,432,401
4101-84	NEW HAVEN	Southbury	Personnel Village 13	Southbury Training School		$76,514	$285,646	$54,324	$181,080	$108,648	$108,648	$0	$0	$72,432	$0	$0	$5,432,401
4101-85	NEW HAVEN	Southbury	Personnel Village 14	Southbury Training School		$76,514	$285,646	$54,324	$181,080	$108,648	$108,648	$0	$0	$72,432	$0	$0	$5,432,401
4101-86	NEW HAVEN	Southbury	Personnel Village 15	Southbury Training School		$76,514	$285,646	$54,324	$181,080	$108,648	$108,648	$0	$0	$72,432	$0	$0	$5,432,401
4101-95	NEW HAVEN	Southbury	Personnel Village 24	Southbury Training School		$90,548	$285,646	$56,429	$188,097	$112,858	$112,858	$0	$0	$75,239	$0	$0	$5,642,919
4101-96	NEW HAVEN	Southbury	Personnel Village 25	Southbury Training School		$90,548	$285,646	$56,429	$188,097	$112,858	$112,858	$0	$0	$75,239	$0	$0	$5,642,919
4101-97	NEW HAVEN	Southbury	Personnel Village 26	Southbury Training School		$90,548	$285,646	$56,429	$188,097	$112,858	$112,858	$0	$0	$75,239	$0	$0	$5,642,919
4101-98	NEW HAVEN	Southbury	Personnel Village 27	Southbury Training School		$90,548	$285,646	$56,429	$188,097	$112,858	$112,858	$0	$0	$75,239	$0	$0	$5,642,919

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4101-99	NEW HAVEN	Southbury	Personnel Village 28	Southbury Training School		$90,548	$285,646	$56,429	$188,097	$112,858	$112,858	$0	$0	$75,239	$0	$0	$5,642,919
4101-100	NEW HAVEN	Southbury	Personnel Village 29	Southbury Training School		$141,483	$285,646	$64,069	$213,564	$128,139	$128,139	$0	$0	$85,426	$0	$0	$6,406,933
4101-92	NEW HAVEN	Southbury	Personnel Village 21	Southbury Training School		$76,514	$285,646	$54,324	$181,080	$108,648	$108,648	$0	$0	$72,432	$0	$0	$5,432,401
4101-91	NEW HAVEN	Southbury	Personnel Village 20	Southbury Training School		$76,514	$285,646	$54,324	$181,080	$108,648	$108,648	$0	$0	$72,432	$0	$0	$5,432,401
4101-78	NEW HAVEN	Southbury	Personnel Village 3	Southbury Training School		$76,514	$285,646	$54,324	$181,080	$108,648	$108,648	$0	$0	$72,432	$0	$0	$5,432,401
4101-26	NEW HAVEN	Southbury	Cottage 16	Southbury Training School		$302,773	$285,646	$88,263	$294,210	$176,526	$176,526	$0	$0	$117,684	$0	$0	$8,826,288
4101-27	NEW HAVEN	Southbury	Cottage 17	Southbury Training School		$498,811	$285,646	$117,669	$392,229	$235,337	$235,337	$0	$0	$156,891	$0	$0	$11,766,860
4101-28	NEW HAVEN	Southbury	Cottage 18	Southbury Training School		$625,240	$285,646	$136,633	$455,443	$273,266	$273,266	$0	$0	$182,177	$0	$0	$13,663,295
4101-61	NEW HAVEN	Southbury	Incinerator	Southbury Training School		$33,956	$285,646	$47,940	$159,801	$95,881	$95,881	$0	$0	$63,920	$0	$0	$4,794,029
4101-75	NEW HAVEN	Southbury	P2-Fleck Hall	Southbury Training School		$680,324	$285,646	$144,895	$482,985	$289,791	$289,791	$0	$0	$193,194	$0	$0	$14,489,546
4101-35	NEW HAVEN	Southbury	Cottage 26	Southbury Training School		$302,094	$285,646	$88,161	$293,870	$176,322	$176,322	$0	$0	$117,548	$0	$0	$8,816,097
4101-36	NEW HAVEN	Southbury	Cottage 27	Southbury Training School		$355,140	$285,646	$96,118	$320,393	$192,236	$192,236	$0	$0	$128,157	$0	$0	$9,611,789
4101-37	NEW HAVEN	Southbury	Cottage 28	Southbury Training School		$327,485	$285,646	$91,970	$306,566	$183,939	$183,939	$0	$0	$122,626	$0	$0	$9,196,968
4101-38	NEW HAVEN	Southbury	Cottage 29	Southbury Training School		$327,485	$285,646	$91,970	$306,566	$183,939	$183,939	$0	$0	$122,626	$0	$0	$9,196,968
4101-108	NEW HAVEN	Southbury	Fire Dept. Garage Building #3	Southbury Training School		$26,063	$285,646	$46,756	$155,855	$93,513	$93,513	$0	$0	$62,342	$0	$0	$4,675,641
4101-67	NEW HAVEN	Southbury	Lumber Shed	Southbury Training School		$45,275	$285,646	$49,638	$165,460	$99,276	$99,276	$0	$0	$66,184	$0	$0	$4,963,814
4101-70	NEW HAVEN	Southbury	Maintenance Shops	Southbury Training School		$344,274	$285,646	$94,488	$314,960	$188,976	$188,976	$0	$0	$125,984	$0	$0	$9,448,804
4101-128	NEW HAVEN	Southbury	Staff House 4	Southbury Training School		$65,799	$285,646	$52,717	$175,722	$105,433	$105,433	$0	$0	$70,289	$0	$0	$5,271,672

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4101-127	NEW HAVEN	Southbury	Staff House 3	Southbury Training School		$106,772	$285,646	$58,863	$196,209	$117,725	$117,725	$0	$0	$78,484	$0	$0	$5,886,268
4101-132	NEW HAVEN	Southbury	Staff House 10	Southbury Training School		$238,332	$285,646	$78,597	$261,989	$157,194	$157,194	$0	$0	$104,796	$0	$0	$7,859,676
4101-112	NEW HAVEN	Southbury	Pump House #5	Southbury Training School		$5,282	$285,646	$43,639	$145,464	$87,278	$87,278	$0	$0	$58,186	$0	$0	$4,363,921
4101-3	NEW HAVEN	Southbury	Activity Site Bunk House #1	Southbury Training School		$18,110	$285,646	$45,563	$151,878	$91,127	$91,127	$0	$0	$60,751	$0	$0	$4,556,344
4101-4	NEW HAVEN	Southbury	Activity Site Bunk House #2	Southbury Training School		$18,110	$285,646	$45,563	$151,878	$91,127	$91,127	$0	$0	$60,751	$0	$0	$4,556,344
4101-5	NEW HAVEN	Southbury	Activity Site Bunk House #3	Southbury Training School		$18,110	$285,646	$45,563	$151,878	$91,127	$91,127	$0	$0	$60,751	$0	$0	$4,556,344
4101-137	NEW HAVEN	Southbury	Ampitheatre/Storage Building	Southbury Training School		$9,055	$285,646	$44,205	$147,350	$88,410	$88,410	$0	$0	$58,940	$0	$0	$4,420,510
4101-48	NEW HAVEN	Southbury	Cottage Farm ll	Southbury Training School		$426,712	$285,646	$106,854	$356,179	$213,707	$213,707	$0	$0	$142,472	$0	$0	$10,685,365
4101-62	NEW HAVEN	Southbury	Generator Shed	Southbury Training School		$22,637	$285,646	$46,242	$154,141	$92,485	$92,485	$0	$0	$61,657	$0	$0	$4,624,245
4101-58	NEW HAVEN	Southbury	Horse Barn Shed	Southbury Training School		$301,074	$285,646	$88,008	$293,360	$176,016	$176,016	$0	$0	$117,344	$0	$0	$8,800,809
4101-50	NEW HAVEN	Southbury	Cow and Hay Barn	Southbury Training School		$179,294	$285,646	$69,741	$232,470	$139,482	$139,482	$0	$0	$92,988	$0	$0	$6,974,109
4101-57	NEW HAVEN	Southbury	Heifer Barn W/2/Stalls	Southbury Training School		$230,900	$285,646	$77,482	$258,273	$154,964	$154,964	$0	$0	$103,309	$0	$0	$7,748,185
4101-136	NEW HAVEN	Southbury	Storage Barn	Southbury Training School		$16,299	$285,646	$45,292	$150,973	$90,584	$90,584	$0	$0	$60,389	$0	$0	$4,529,177
4101-102	NEW HAVEN	Southbury	Piggery	Southbury Training School		$1	$285,646	$42,847	$142,824	$85,694	$85,694	$0	$0	$57,129	$0	$0	$4,284,708
4101-1	NEW HAVEN	Southbury	Abatoir	Southbury Training School		$26,599	$285,646	$46,837	$156,122	$93,673	$93,673	$0	$0	$62,449	$0	$0	$4,683,674
4101-8	NEW HAVEN	Southbury	Boiler House	Southbury Training School		$166,006	$285,646	$67,748	$225,826	$135,496	$135,496	$0	$0	$90,331	$0	$0	$6,774,788
4101-129	NEW HAVEN	Southbury	Staff House 5	Southbury Training School		$124,316	$285,646	$61,494	$204,981	$122,989	$122,989	$0	$0	$81,992	$0	$0	$6,149,433
4101-72	NEW HAVEN	Southbury	Milk Processing Plant	Southbury Training School		$43,614	$285,646	$49,389	$164,630	$98,778	$98,778	$0	$0	$65,852	$0	$0	$4,938,903

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
4101-16	NEW HAVEN	Southbury	Cottage 6	Southbury Training School		$327,485	$285,646	$91,970	$306,566	$183,939	$183,939	$0	$0	$122,626	$0	$0	$9,196,968
4101-14	NEW HAVEN	Southbury	Cottage 4	Southbury Training School		$364,912	$285,646	$97,584	$325,279	$195,167	$195,167	$0	$0	$130,112	$0	$0	$9,758,366
4122-284122	HARTFORD	Windsor				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
4122-344122	HARTFORD	Windsor	265 Kennedy			$267,783	$16,376	$42,624	$99,456	$85,248	$85,248	$0	$0	$56,832	$0	$0	$4,262,388
3400-6	HARTFORD	East Granby	New Gate Cottage			$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
3400-7	HARTFORD	East Granby	Newgate Cape Cod House			$92,104	$285,646	$56,663	$132,213	$113,325	$113,325	$0	$0	$75,550	$0	$0	$5,666,256
3400-5	HARTFORD	East Granby	Newgate Reception Area			$210,774	$285,646	$74,463	$173,747	$148,926	$148,926	$0	$0	$99,284	$0	$0	$7,446,299
2201-101	HARTFORD	Windsor Locks	Warehouse-Csd			$379,754	$285,646	$99,810	$232,890	$199,620	$199,620	$0	$0	$133,080	$0	$0	$9,981,001
2201-102	HARTFORD	Windsor Locks				$606,685	$285,646	$133,850	$312,316	$267,699	$267,699	$0	$0	$178,466	$0	$0	$13,384,971
2201-104	HARTFORD	Windsor Locks				$367,028	$285,646	$97,901	$228,436	$195,802	$195,802	$0	$0	$130,535	$0	$0	$9,790,113
	NEW HAVEN	Oxford		Waterbury-Oxford Airport		$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	Oxford		Waterbury-Oxford Airport		$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	Oxford	Airport Management/ARFF/Maintenance	Waterbury-Oxford Airport		$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	Oxford	Double Diamond	Waterbury-Oxford Airport		$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	Oxford	Resturant	Waterbury-Oxford Airport		$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	Oxford	Hanger G	Waterbury-Oxford Airport		$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Suffield				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Windsor				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
8000-12	TOLLAND	Somers	Well Pump House 4	Osborn Correctional Institution		$10,496	$285,646	$44,421	$103,650	$88,843	$88,843	$0	$0	$59,228	$0	$0	$4,442,125
8000-13	TOLLAND	Somers	Well Pump House 3	Osborn Correctional Institution		$10,496	$285,646	$44,421	$103,650	$88,843	$88,843	$0	$0	$59,228	$0	$0	$4,442,125
	TOLLAND	Somers		Osborn Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Somers		Osborn Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
			The Connecticut Building	Eastern States Exposition	Big E Connecticut Building	$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	Waterbury				$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$0	$521,425	$0	$0	$39,106,849
1326-501	NEW LONDON	Waterford	Municipal Wastewater Pump Station	Seaside Regional Center	Sewage Pumping Station	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
1326-504	NEW LONDON	Waterford	Former Private Wastewater Pump Station	Seaside Regional Center	Pump House No. 1	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
1326-500	NEW LONDON	Waterford	Main Hospital Building	Seaside Regional Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
1326-493	NEW LONDON	Waterford	Fenn Building	Seaside Regional Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
1001-7102	HARTFORD	Hartford		Maintenance Garage (Military)		$793,656	$285,646	$161,895	$377,756	$0	$323,791	$377,756	$0	$215,861	$0	$0	$16,189,539
	HARTFORD	Hartford				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
(none)	HARTFORD	Hartford		Convention Center		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
7803-5381	FAIRFIELD	Danbury	Armory	Western Connecticut State University	Education	$157,240	$36,389	$29,044	$96,815	$0	$58,089	$67,770	$0	$38,726	$0	$0	$2,904,435
	HARTFORD	Newington				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	Middletown		Department of Transportation		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	MIDDLESEX	Middletown		Department of Transportation		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
8102-69	MIDDLESEX	Middletown	Silvermine Hall Bldg #1	Connecticut Valley Hospital		$6,510,594	$192,730	$1,005,499	$3,351,662	$0	$2,010,997	$2,346,163	$0	$1,340,665	$0	$0	$100,549,860
	FAIRFIELD	New Canaan				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	New Canaan				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
7302-10	HARTFORD	Farmington	Warehouse	UCONN HEALTH CENTER		$3,049,853	$6,862,597	$1,486,867	$3,469,357	$0	$2,973,735	$3,469,357	$0	$1,982,490	$0	$0	$148,686,742
7302-20	HARTFORD	Farmington	Firehouse	UCONN HEALTH CENTER		$316,127	$1,488,230	$270,654	$631,525	$0	$541,307	$631,525	$0	$360,871	$0	$0	$27,065,350
7302-12	HARTFORD	Farmington	Creative Child Care Center	UCONN HEALTH CENTER		$821,547	$11,275	$124,923	$291,488	$0	$249,847	$291,488	$0	$166,564	$0	$0	$12,492,330
7302-30	HARTFORD	Farmington	Green House	UCONN HEALTH CENTER		$459,650	$14,735	$71,158	$166,035	$0	$142,315	$166,035	$0	$94,877	$0	$0	$7,115,774
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
8000-337	MIDDLESEX	Haddam	Tractor Shed-Haddam			$5,488	$285,646	$43,670	$145,567	$0	$87,340	$101,897	$0	$58,227	$0	$0	$4,367,016
7802-4	HARTFORD	New Britain	Marcus White Annex			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
7302-7816	HARTFORD	Farmington	16 Munson Road			$13,520,000	$1,511,752	$2,254,763	$5,261,113	$0	$4,509,526	$5,261,113	$0	$3,006,350	$0	$0	$225,476,282

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
4122-274122	HARTFORD	Bloomfield	26 Marguerite Avenue			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
7301-112	TOLLAND	Mansfield	0189 Mansfield Apartments Building 13 (4 Units)	University of Connecticut - Storrs Campus	Residence	$596,305	$3,019	$89,899	$209,763	$0	$179,797	$209,763	$0	$119,865	$0	$0	$8,989,860
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
7301-28	TOLLAND	Mansfield	0038 Beach Hall	University of Connecticut - Storrs Campus	Education	$9,292,444	$3,760,446	$1,957,933	$4,568,511	$0	$3,915,867	$4,568,511	$0	$2,610,578	$0	$0	$195,793,348
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
7301-131	TOLLAND	Mansfield	0214 Floriculture Building	University of Connecticut - Storrs Campus	Other	$1,355,723	$56,209	$211,790	$494,176	$0	$423,580	$494,176	$0	$282,386	$0	$0	$21,178,979
7301-527	TOLLAND	Mansfield	0212 Ratcliffe Hicks	University of Connecticut - Storrs Campus	Education	$4,370,190	$274,270	$696,669	$1,625,561	$0	$1,393,338	$1,625,561	$0	$928,892	$0	$0	$69,666,896
7301-7225	TOLLAND	Mansfield	0469 Husky Village/Greek A1, A2	University of Connecticut - Storrs Campus	Residence	$1,853,932	$10,436	$279,655	$652,529	$0	$559,310	$652,529	$0	$372,874	$0	$0	$27,965,516
7301-1120	TOLLAND	Mansfield	0385 Athletic Equipment Storage Building (Moon)	University of Connecticut - Storrs Campus	Sports/Gymnasium	$122,735	$1,258	$18,599	$43,398	$0	$37,198	$43,398	$0	$24,799	$0	$0	$1,859,897
7301-7189	TOLLAND	Mansfield	0444 Stowe Hall, Hilltop Apt. 11	University of Connecticut - Storrs Campus	Residence	$2,294,289	$285,646	$386,990	$902,977	$0	$773,980	$902,977	$0	$515,987	$0	$0	$38,699,022
7301-289	TOLLAND	Mansfield	1045 Northwood Apartments, Bldg 10	University of Connecticut - Storrs Campus		$622,764	$285,646	$136,261	$317,943	$0	$272,523	$317,943	$0	$181,682	$0	$0	$13,626,145
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
7301-1132	TOLLAND	Mansfield	0400 Shuttlebus Shelter 5-F Lot	University of Connecticut - Storrs Campus		$36,940	$285,646	$48,388	$112,905	$0	$96,776	$112,905	$0	$64,517	$0	$0	$4,838,789
7301-1137	TOLLAND	Mansfield	0405 Baseball Bleachers & Press Box	University of Connecticut - Storrs Campus		$77,037	$86,095	$24,470	$57,096	$0	$48,940	$57,096	$0	$32,626	$0	$0	$2,446,975
7301-1138	TOLLAND	Mansfield	0410 Central Warehouse	University of Connecticut - Storrs Campus	Storage/Warehouse	$11,018,397	$7,395,640	$2,762,106	$6,444,913	$0	$5,524,211	$6,444,913	$0	$3,682,807	$0	$0	$276,210,554
7301-1149	TOLLAND	Mansfield	0431 Shuttlebus Shelter - I Lot	University of Connecticut - Storrs Campus		$34,604	$285,646	$48,037	$112,087	$0	$96,075	$112,087	$0	$64,050	$0	$0	$4,803,750
7301-7182	TOLLAND	Mansfield	0331D Gant Plaza	University of Connecticut - Storrs Campus	Education	$8,748,542	$385,768	$1,370,147	$3,197,009	$0	$2,740,293	$3,197,009	$0	$1,826,862	$0	$0	$137,014,654
7301-7152	TOLLAND	Mansfield	0159 McConaughy Hall, Nc 11	University of Connecticut - Storrs Campus	Residence	$9,696,555	$228,148	$1,488,705	$3,473,646	$0	$2,977,411	$3,473,646	$0	$1,984,941	$0	$0	$148,870,547
7301-7107	TOLLAND	Mansfield	0441 Shuttlebus Shelter - Student Union	University of Connecticut - Storrs Campus		$76,264	$285,646	$54,286	$126,668	$0	$108,573	$126,668	$0	$72,382	$0	$0	$5,428,647
7301-7105	TOLLAND	Mansfield	0439 Shuttlebus Shelter - Gilbert Rd/ North	University of Connecticut - Storrs Campus		$76,131	$285,646	$54,267	$126,622	$0	$108,533	$126,622	$0	$72,355	$0	$0	$5,426,653
7301-7	TOLLAND	Mansfield	0007 Klinck - Ag Egr Lab	University of Connecticut - Storrs Campus	Laboratory	$777,492	$247,002	$153,674	$358,573	$0	$307,348	$358,573	$0	$204,899	$0	$0	$15,367,412
4122-479	TOLLAND	Mansfield	Birch House	University of Connecticut - Depot	Residential	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield	1011 House 46 Garage	University of Connecticut - Storrs Campus	Garage	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	WINDHAM	Plainfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	WINDHAM	Plainfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	WINDHAM	Plainfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	New Fairfield				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	New Fairfield				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Newtown				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Ridgefield				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Ridgefield				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Ridgefield				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Ridgefield				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Wilton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Westport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Westport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Westport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Westport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Westport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Westport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Westport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	FAIRFIELD	Westport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	Hamden				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	Hamden				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	Hamden				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	LITCHFIELD	Cornwall				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	LITCHFIELD	Cornwall				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	LITCHFIELD	Cornwall				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	LITCHFIELD	Cornwall				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	LITCHFIELD	Cornwall				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	LITCHFIELD	Cornwall				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	LITCHFIELD	Cornwall				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	LITCHFIELD	Cornwall				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	LITCHFIELD	Cornwall				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
5000-4185	WINDHAM	Thompson	Personnel Shelter	Thompson Salt Storage	Shed	$8,522	$285,646	$44,125	$102,959	$0	$88,250	$102,959	$0	$58,834	$0	$0	$4,412,524
3100-480	WINDHAM	Thompson	Concession Building	Quaddick State Park		$10,279	$285,646	$44,389	$103,574	$0	$88,777	$103,574	$0	$59,185	$0	$0	$4,438,874
3100-483	WINDHAM	Thompson	Ticket Booth	Quaddick State Park		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
3100-2693	WINDHAM	Thompson	Pavillion	Quaddick State Park		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	WINDHAM	Thompson	Toilet Building	Quaddick State Park		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	WINDHAM	Thompson	Thompson Radio Tower Support Building	Thompson Radio Tower	Communications	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Tolland	Shed	Troop C	Shed	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
5000-4269	TOLLAND	Stafford	Personnel Shelter	Stafford Salt Storage	Shelter	$13,422	$285,646	$44,860	$104,674	$0	$89,720	$104,674	$0	$59,814	$0	$0	$4,486,020
5000-4194	TOLLAND	Stafford	Sand/Salt Storage Shed	Stafford Salt Storage	Storage	$254,236	$285,646	$80,982	$188,959	$0	$161,965	$188,959	$0	$107,976	$0	$0	$8,098,231
	TOLLAND	Willington	Shed	I-84 Rest Area EB	Storage	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
						$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Coventry	Pavilion	Nathan Hale State Forest	Pavilion	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Coventry	Shed	Nathan Hale State Forest	Shed	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Coventry	Shed	Nathan Hale State Forest	Shed	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Coventry	Cabin	Nathan Hale State Forest	Cabin	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Coventry	Cabin	Nathan Hale State Forest	Cabin	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	TOLLAND	Coventry	Cabin	Nathan Hale State Forest	Cabin	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
5000-527	TOLLAND	Tolland	Bus Shelter	DOT Tolland Park & Ride Lot	Bus Shelter	$2,170	$285,646	$43,172	$100,736	$0	$86,345	$100,736	$0	$57,563	$0	$0	$4,317,244
7301-464	TOLLAND	Mansfield	2132 Depot - Knight Hospital	University of Connecticut - Depot		$10,398,529	$90,000	$1,573,279	$3,670,985	$0	$3,146,559	$3,670,985	$0	$2,097,706	$0	$0	$157,327,937
7301-492	TOLLAND	Mansfield	2171 Depot - Wallace Hall	University of Connecticut - Depot		$758,599	$285,646	$156,637	$365,486	$0	$313,274	$365,486	$0	$208,849	$0	$0	$15,663,677
	WINDHAM	Killingly				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
8000-102	HARTFORD	Enfield	Housing Unit #1	Enfield Correctional Institution		$1,207,285	$15,631	$183,437	$428,021	$366,875	$366,875	$428,021	$0	$244,583	$0	$0	$18,343,737
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	HARTFORD	Suffield		MacDougall-Walker Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$0	$39,106,849
5000-142	HARTFORD	Southington	Maintenance Service Center Garage			$1,004,841	$293,771	$194,792	$454,514	$0	$389,584	$0	$1,298,612	$259,722	$0	$0	$19,479,185
1312-9	HARTFORD	Rocky Hill	Auditorium			$1,401,149	$9,982	$211,670	$493,896	$0	$423,339	$0	$1,411,131	$282,226	$0	$0	$21,166,971
7301-152	TOLLAND	Mansfield	0238 College of Liberal Arts and Sciences	University of Connecticut - Storrs Campus	Education	$27,661,100	$1,979,208	$4,446,046	$10,374,108	$0	$8,892,092	$0	$29,640,308	$5,928,062	$0	$0	$444,604,615
7301-510	TOLLAND	Mansfield	0409 Chemistry Building	University of Connecticut - Storrs Campus	Education	$65,336,029	$12,105,533	$11,616,234	$27,104,547	$0	$23,232,469	$0	$77,441,562	$15,488,312	$0	$0	$1,161,623,427
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$2,607,123	$521,425	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$2,607,123	$521,425	$0	$0	$39,106,849
7301-7138	TOLLAND	Mansfield	0040 Atwater Lab	University of Connecticut - Storrs Campus	Education	$9,404,166	$1,459,365	$1,629,530	$3,802,236	$0	$3,259,059	$0	$10,863,530	$2,172,706	$0	$0	$162,952,953
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$2,607,123	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$2,607,123	$521,425	$0	$0	$39,106,849
7301-5	TOLLAND	Mansfield	0005 Dairy Barn & Silo	University of Connecticut - Storrs Campus	Other	$613,302	$773,186	$207,973	$485,271	$0	$415,946	$0	$1,386,488	$277,298	$0	$0	$20,797,316
7301-7210	TOLLAND	Mansfield	0421B Advanced Technology Lab	University of Connecticut - Storrs Campus	Laboratory	$8,478,189	$1,074,514	$1,432,905	$3,343,446	$0	$2,865,811	$0	$9,552,702	$1,910,540	$0	$0	$143,290,531
7301-7227	TOLLAND	Mansfield	0471 Husky Village/Greek C1,C2	University of Connecticut - Storrs Campus	Residence	$1,853,932	$4,768	$278,805	$650,545	$0	$557,610	$0	$1,858,700	$371,740	$0	$0	$27,880,502
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$2,607,123	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$2,607,123	$521,425	$0	$0	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$2,607,123	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$2,607,123	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$2,607,123	$521,425	$0	$0	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$2,607,123	$521,425	$0	$0	$39,106,849
	WINDHAM	Putnam				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$2,607,123	$521,425	$0	$0	$39,106,849
7701-48	NEW HAVEN	Waterbury	Founders Hall formally WSTC	Naugatuck Valley Community College		$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$2,607,123	$521,425	$0	$0	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$2,607,123	$521,425	$0	$0	$39,106,849
4101-53	NEW HAVEN	Southbury	Garage for Staff House 16	Southbury Training School		$9,055	$285,646	$44,205	$147,350	$88,410	$88,410	$0	$294,701	$58,940	$0	$0	$4,420,510
4101-131	NEW HAVEN	Southbury	Staff House 7	Southbury Training School		$87,078	$285,646	$55,909	$186,362	$111,817	$111,817	$0	$372,724	$74,545	$0	$0	$5,590,858
2201-71	TOLLAND	Vernon	State Armory	Rockville Armory	Military	$1,316,337	$3,036	$197,906	$461,781	$395,812	$395,812	$0	$1,319,373	$263,875	$0	$0	$19,790,595
	HARTFORD	Windsor				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$2,607,123	$521,425	$0	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	NEW HAVEN	Oxford	Fuel Farm	Waterbury-Oxford Airport		$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$2,607,123	$521,425	$0	$0	$39,106,849
	HARTFORD	Suffield				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$2,607,123	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$2,607,123	$521,425	$0	$0	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$2,607,123	$521,425	$0	$0	$39,106,849
7804-7102	NEW HAVEN	Hamden	North Campus Residence Complex - Townhouse A	Southern Connecticut State University	Building No. 34, Residence	$849,857	$17,023	$130,032	$433,440	$0	$260,064	$0	$0	$173,376	$866,880	$0	$13,003,193
7804-22	NEW HAVEN	New Haven	Lyman Center	Southern Connecticut State University	Building No. 12, Education	$11,541,751	$423,293	$1,794,757	$5,982,522	$0	$3,589,513	$0	$0	$2,393,009	$11,965,044	$0	$179,475,656
(none)	FAIRFIELD	Danbury		Henry Abbott Technical High School	Shed	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$2,607,123	$0	$39,106,849
(none)	FAIRFIELD	Danbury	Renovated Main Campus Building	Henry Abbott Technical High School	Education	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$2,607,123	$0	$39,106,849
7001-8	NEW HAVEN	Hamden	Main Campus Building	Eli Whitney Technical High School	Education	$25,781,526	$2,700,411	$4,272,290	$14,240,968	$0	$8,544,581	$0	$0	$5,696,387	$28,481,936	$0	$427,229,044
(none)	NEW HAVEN	Hamden		Eli Whitney Technical High School	Shed	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$2,607,123	$0	$39,106,849
1326-499	NEW LONDON	Waterford	Employee Building No. 1	Seaside Regional Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$2,607,123	$0	$39,106,849
7803-5444	FAIRFIELD	Danbury	Fairfield Hall	Western Connecticut State University - Midtown Campus	Student Life	$1,531,498	$16,468	$232,195	$773,983	$0	$464,390	$0	$0	$309,593	$1,547,966	$0	$23,219,491
7701-7	FAIRFIELD	Norwalk	West Campus	Norwalk Community College	Education	$19,903,194	$2,982,797	$3,432,899	$11,442,995	$0	$6,865,797	$0	$0	$4,577,198	$22,885,991	$0	$343,289,859
1326-8531	HARTFORD	Hartford	Church	Second Church of Christ	Other	$1,701,375	$285,646	$298,053	$695,457	$0	$596,106	$0	$0	$397,404	$1,987,021	$0	$29,805,317
5000-1	HARTFORD	Simsbury	Maintenance Garage	Department of Transportation		$206,255	$69,338	$41,339	$96,458	$0	$82,678	$0	$0	$55,119	$275,593	$0	$4,133,893
4400-346	MIDDLESEX	Middletown	Whiting Forensic Institute	Connecticut Valley Hospital		$13,119,410	$597,263	$2,057,501	$6,858,337	$0	$4,115,002	$0	$0	$2,743,335	$13,716,673	$0	$205,750,099
4400-120	MIDDLESEX	Middletown	Shew Hall	Connecticut Valley Hospital		$4,620,970	$361,096	$747,310	$2,491,033	$0	$1,494,620	$0	$0	$996,413	$4,982,066	$0	$74,730,993
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$2,607,123	$0	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$2,607,123	$0	$39,106,849
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$2,607,123	$0	$39,106,849
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$2,607,123	$0	$39,106,849
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$2,607,123	$0	$39,106,849
3100-52	MIDDLESEX	Killingworth	Entrance Building			$726	$285,646	$42,956	$143,186	$0	$85,912	$0	$0	$57,274	$286,372	$0	$4,295,586
7301-371	LITCHFIELD	Torrington	3503 Torrington Warehouse			$134,312	$46,398	$27,106	$63,248	$0	$54,213	$0	$0	$36,142	$180,710	$0	$2,710,647
3200-46	HARTFORD	Burlington	Trout Hatchery			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$2,607,123	$0	$39,106,849
	WINDHAM	Plainfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$2,607,123	$0	$39,106,849
7805-486	WINDHAM	Windham	High Street Garage	Eastern Connecticut State University	Garage next to Heating Plant, South	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$2,607,123	$39,106,849
7805-4	WINDHAM	Windham	Shafer Hall	Eastern Connecticut State University	Building No. 3	$9,264,313	$826,573	$1,513,633	$3,531,810	$0	$3,027,266	$0	$0	$0	$0	$10,090,886	$151,363,288
7805-2	WINDHAM	Windham	Beckert Hall	Eastern Connecticut State University	Building No. 2	$121,783	$29,353	$22,670	$52,898	$0	$45,341	$0	$0	$0	$0	$151,136	$2,267,037
(none)	WINDHAM	Windham		Eastern Connecticut State University	Garage	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$2,607,123	$39,106,849
7805-13	WINDHAM	Windham	High Rise Apartments	Eastern Connecticut State University	Building No. 19, Residence	$6,979,014	$36,906	$1,052,388	$2,455,572	$0	$2,104,776	$0	$0	$0	$0	$7,015,920	$105,238,794
7805-19	WINDHAM	Windham	Low Rise E	Eastern Connecticut State University	Building No. 17	$1,740,162	$9,353	$262,427	$612,330	$0	$524,854	$0	$0	$0	$0	$1,749,515	$26,242,718
(none)	WINDHAM	Windham		Eastern Connecticut State University	Spector Softball Field Structure	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$2,607,123	$39,106,849
7805-484	WINDHAM	Windham	Mead Hall	Eastern Connecticut State University	Building No. 44	$12,514,857	$132,609	$1,897,120	$4,426,613	$0	$3,794,240	$0	$0	$0	$0	$12,647,466	$189,711,994
7805-5371	WINDHAM	Windham	Webb Hall	Eastern Connecticut State University	Building No. 21	$8,852,921	$1,494,283	$1,552,081	$3,621,521	$0	$3,104,161	$0	$0	$0	$0	$10,347,204	$155,208,060

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
7805-21	WINDHAM	Windham	Media Building	Eastern Connecticut State University	Building No. 29	$7,620,506	$2,207,370	$1,474,181	$3,439,757	$0	$2,948,363	$0	$0	$0	$0	$9,827,876	$147,418,142
7805-7821	WINDHAM	Windham	Constitution Hall	Eastern Connecticut State University	Building No. 14	$2,321,477	$1,013,983	$500,319	$1,167,411	$0	$1,000,638	$0	$0	$0	$0	$3,335,460	$50,031,903
	HARTFORD	Hartford		Brainard Airport		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$2,607,123	$39,106,849
5000-198	HARTFORD	Hartford	Hangar (Corporate)	Brainard Airport		$420,562	$37,872	$68,765	$160,452	$0	$137,530	$0	$0	$0	$0	$458,434	$6,876,513
5000-197	HARTFORD	Hartford	Headquarters	Brainard Airport		$457,585	$16,406	$71,099	$165,897	$0	$142,197	$0	$0	$0	$0	$473,992	$7,109,874
3002-1	HARTFORD	Hartford	Restraunt	Regional Market		$313,985	$285,646	$89,945	$209,871	$0	$179,889	$0	$0	$0	$0	$599,631	$8,994,461
7301-367	HARTFORD	Hartford	School of Law - Knight Hall	University of Connecticut	Office	$1,803,896	$180,251	$297,622	$694,452	$0	$595,244	$0	$0	$0	$0	$1,984,147	$29,762,210
4124-421	LITCHFIELD	Torrington	Northwest Center Administrative Building	Northwest Regional Center		$2,034,032	$256,346	$343,557	$801,632	$0	$687,113	$0	$0	$0	$0	$2,290,378	$34,355,670
(none)	FAIRFIELD	Danbury	Ives Concert Park	Western Connecticut State University - Westside Campus	Athletics/Recreation	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$2,607,123	$39,106,849
5000-4236	MIDDLESEX	Westbrook	Salt/Storage Shed			$289,226	$285,646	$86,231	$287,436	$0	$172,462	$0	$0	$0	$0	$574,872	$8,623,084
3100-100	MIDDLESEX	Portland	Paint/Carpenter			$50,515	$17,342	$10,178	$33,928	$0	$20,357	$0	$0	$0	$0	$67,857	$1,017,849
5000-7212	HARTFORD	Berlin	Storage			$23,450	$285,646	$46,364	$108,184	$0	$92,729	$0	$0	$0	$0	$309,097	$4,636,449
	NEW LONDON	Preston				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$2,607,123	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$2,607,123	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$2,607,123	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$2,607,123	$39,106,849
7301-484	TOLLAND	Mansfield	2160 Depot - Stafford Cottage	University of Connecticut - Depot		$399,335	$36,425	$65,364	$152,516	$0	$130,728	$0	$0	$0	$0	$435,760	$6,536,402
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$2,607,123	$39,106,849
	FAIRFIELD	New Canaan				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$2,607,123	$39,106,849
2201-4758	HARTFORD	Windsor Locks	Aviation Battalion Headquarters			$842,848	$285,646	$169,274	$394,973	$338,548	$338,548	$0	$0	$0	$0	$1,128,494	$16,927,415
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$2,607,123	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$2,607,123	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$2,607,123	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$2,607,123	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$2,607,123	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$2,607,123	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$2,607,123	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$2,607,123	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$2,607,123	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$2,607,123	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$2,607,123	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$2,607,123	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$2,607,123	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$2,607,123	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$2,607,123	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$2,607,123	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$2,607,123	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$2,607,123	$39,106,849
4400-38	MIDDLESEX	Middletown	Cottage 01	Connecticut Valley Hospital		$87,119	$285,646	$55,915	$186,382	$0	$111,829	$0	$0	$74,553	$0	$372,765	$5,591,472
	NEW HAVEN	Cheshire				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$2,607,123	$39,106,849
	NEW HAVEN	Cheshire				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$2,607,123	$39,106,849
	NEW HAVEN	Cheshire				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$2,607,123	$39,106,849
	NEW HAVEN	Cheshire				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$2,607,123	$39,106,849
	NEW HAVEN	Cheshire				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$2,607,123	$39,106,849
	TOLLAND	Mansfield		UConn - Spring Hill Farm		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$2,607,123	$39,106,849
7301-106	TOLLAND	Mansfield	0183 Mansfield Apartments Building 06 (6 Units)	University of Connecticut - Storrs Campus	Residence	$777,535	$285,646	$159,477	$372,113	$0	$318,954	$0	$0	$212,636	$0	$1,063,181	$15,947,716
7301-105	TOLLAND	Mansfield	0182 Mansfield Apartments Building 05 (4 Units)	University of Connecticut - Storrs Campus	Residence	$596,305	$2,309	$89,792	$209,515	$0	$179,584	$0	$0	$119,723	$0	$598,613	$8,979,198
7301-104	TOLLAND	Mansfield	0181 Mansfield Apartments Building 04 (4 Units)	University of Connecticut - Storrs Campus	Residence	$598,148	$285,646	$132,569	$309,328	$0	$265,138	$0	$0	$176,759	$0	$883,795	$13,256,919
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$2,607,123	$39,106,849
	TOLLAND	Willington		I-84 Rest Area WB	Storage	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$2,607,123	$39,106,849
	TOLLAND	Willington	Shed	Willington DOT Garage	Shed	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$2,607,123	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
4101-19	NEW HAVEN	Southbury	Cottage 8	Southbury Training School		$327,485	$285,646	$91,970	$306,566	$183,939	$183,939	$0	$0	$122,626	$0	$613,131	$9,196,968
7805-15	WINDHAM	Windham	Low Rise A	Eastern Connecticut State University	Building No. 17	$1,740,159	$9,352	$262,427	$612,329	$0	$524,853	$0	$0	$0	$0	$43,737,782	$26,242,669
7805-18	WINDHAM	Windham	Low Rise D	Eastern Connecticut State University	Building No. 17	$1,740,160	$19,352	$263,927	$615,829	$0	$527,854	$0	$0	$0	$0	$43,987,810	$26,392,686
(unknown)	WINDHAM	Windham		Eastern Connecticut State University	?	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
7805-3	WINDHAM	Windham	Interfaith Center	Eastern Connecticut State University	Building No. 12; Knight House	$324,940	$17,943	$51,432	$120,009	$0	$102,865	$0	$0	$0	$0	$8,572,079	$5,143,248
7805-7101	WINDHAM	Windham	333 Prospect Street	Eastern Connecticut State University	Building No. 7	$116,653	$285,646	$60,345	$140,805	$0	$120,690	$0	$0	$0	$0	$10,057,474	$6,034,484
7805-481	WINDHAM	Windham	Grant House	Eastern Connecticut State University	Building No. 8	$240,009	$26,000	$39,901	$93,103	$0	$79,803	$0	$0	$0	$0	$6,650,234	$3,990,140
7805-5375	WINDHAM	Windham	University Police	Eastern Connecticut State University	Building No. 25	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
(unknown)	WINDHAM	Windham		Eastern Connecticut State University	?	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
7805-24	WINDHAM	Windham	Occum Hall	Eastern Connecticut State University	Building No. 38	$9,749,020	$49,462	$1,469,772	$3,429,469	$0	$2,939,545	$0	$0	$0	$0	$244,962,058	$146,977,235
(none)	WINDHAM	Windham		Eastern Connecticut State University	Shed	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
(none)	WINDHAM	Windham		Eastern Connecticut State University	Spector Softball Field Structure	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
7805-12	WINDHAM	Windham	Heating Plant, North	Eastern Connecticut State University	Building No. 28	$5,026,049	$3,814	$754,480	$1,760,452	$0	$1,508,959	$0	$0	$0	$0	$125,746,584	$75,447,951
7805-14	WINDHAM	Windham	Wickware Planetarium	Eastern Connecticut State University	Building No. 26	$1,388,780	$199,289	$238,210	$555,824	$0	$476,421	$0	$0	$0	$0	$39,701,729	$23,821,038

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
7805-489	WINDHAM	Windham	Clock Tower	Eastern Connecticut State University	Clock Tower	$659,783	$285,646	$141,814	$330,900	$0	$283,629	$0	$0	$0	$0	$23,635,739	$14,181,443
(none)	WINDHAM	Windham		Eastern Connecticut State University	Shed	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
(none)	WINDHAM	Windham		Eastern Connecticut State University	Shed	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
7805-485	WINDHAM	Windham	Admissions Building	Eastern Connecticut State University	Building No. 24	$741,444	$25,045	$114,973	$268,271	$0	$229,947	$0	$0	$0	$0	$19,162,225	$11,497,335
7805-7827	WINDHAM	Windham	Laurel Hall	Eastern Connecticut State University	Building No. 15	$2,321,477	$1,366,211	$553,153	$1,290,691	$0	$1,106,307	$0	$0	$0	$0	$92,192,213	$55,315,328
7805-7826	WINDHAM	Windham	Nutmeg Hall	Eastern Connecticut State University	Building No. 16	$2,321,477	$1,366,211	$553,153	$1,290,691	$0	$1,106,307	$0	$0	$0	$0	$92,192,213	$55,315,328
7805-7825	WINDHAM	Windham	Wilson Child & Family Development Complex	Eastern Connecticut State University	Building No. 46	$2,321,477	$2,447,984	$715,419	$1,669,311	$0	$1,430,838	$0	$0	$0	$0	$119,236,531	$71,541,919
7001-1	NEW HAVEN	Ansonia	Main Campus Building	Emmett O'Brien Technical High School	Education	$11,257,819	$1,819,794	$1,961,642	$6,538,807	$0	$3,923,284	$0	$0	$0	$0	$326,940,347	$196,164,208
7001-1111	NEW HAVEN	Ansonia	Service Garage	Emmett O'Brien Technical High School	Maintenance/Repair Shop	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
(none)	NEW HAVEN	Meriden	Service Garage	H.C. Wilcox Technical High School	Maintenance/Repair Shop	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
7001-18	NEW HAVEN	Meriden	Main Campus Building	H.C. Wilcox Technical High School	Education	$50,372,187	$2,459,309	$7,924,724	$26,415,748	$0	$15,849,449	$0	$0	$0	$0	$1,320,787,405	$792,472,443
(none)	WINDHAM	Killingly		H.H. Ellis Technical High School	Softball Field Structure	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
(none)	NEW HAVEN	New Haven		Connecticut Mental Health Center	Shed	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
7001-14	NEW LONDON	Norwich	Main Campus Building	Norwich Technical High School	Education	$11,583,446	$1,627,470	$1,981,637	$6,605,458	$0	$3,963,275	$0	$0	$0	$0	$330,272,895	$198,163,737
1326-542	NEW LONDON	Norwich	Paint Shop	Uncas-on-Thames Hospital	Building No. 15	$117,871	$285,646	$60,528	$201,759	$0	$121,055	$0	$0	$0	$0	$10,087,931	$6,052,758

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
1326-530	NEW LONDON	Norwich	Southeastern Mental Health Authority	Uncas-on-Thames Hospital		$9,261,105	$285,646	$1,432,013	$4,773,376	$0	$2,864,025	$0	$0	$0	$0	$238,668,780	$143,201,268
1326-534	NEW LONDON	Norwich	Nurse's Homes Old & New	Uncas-on-Thames Hospital	Building No. 7	$9,470,670	$285,646	$1,463,447	$4,878,158	$0	$2,926,895	$0	$0	$0	$0	$243,907,912	$146,344,747
1326-535	NEW LONDON	Norwich	Phelps Clinic	Uncas-on-Thames Hospital	Building No. 1	$4,388,647	$285,646	$701,144	$2,337,147	$0	$1,402,288	$0	$0	$0	$0	$116,857,336	$70,114,401
	NEW LONDON	Norwich		Uncas-on-Thames Hospital		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW LONDON	Norwich	Martin House	Uncas-on-Thames Hospital		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
7301-7207	NEW LONDON	Norwich	Norwich Cooperative Extension	University of Connecticut	Office	$799,972	$136,495	$140,470	$468,234	$0	$280,940	$0	$0	$0	$0	$23,411,678	$14,047,007
(none)	HARTFORD	Rocky Hill	Garage	Veteran's Home & Hospital	Building Nos. 14 & 16 Garage	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
1312-8	HARTFORD	Rocky Hill	Physical Plant	Veteran's Home & Hospital	Building No. 8	$1,442,553	$690,197	$319,912	$746,462	$0	$639,825	$0	$0	$0	$0	$53,318,742	$31,991,245
1312-27	HARTFORD	Rocky Hill	Transitional Living Residence	Veteran's Home & Hospital	Building No. 52	$988,552	$1,288	$148,476	$346,444	$0	$296,952	$0	$0	$0	$0	$24,745,986	$14,847,591
1312-21	HARTFORD	Rocky Hill	Pump House	Veteran's Home & Hospital	Building No. 40	$44,167	$285,646	$49,472	$115,435	$0	$98,944	$0	$0	$0	$0	$8,245,337	$4,947,202
(none)	WINDHAM	Windham		Eastern Connecticut State University	Ramp to Building No. 32	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
7805-22	WINDHAM	Windham	Student Center	Eastern Connecticut State University	Building No. 32	$18,962,282	$1,700,000	$3,099,342	$7,231,799	$0	$6,198,684	$0	$0	$0	$0	$516,557,038	$309,934,223
7805-7	WINDHAM	Windham	Goddard Hall	Eastern Connecticut State University	Building No. 27	$4,796,545	$609,440	$810,898	$1,892,095	$0	$1,621,796	$0	$0	$0	$0	$135,149,634	$81,089,780
7805-1	WINDHAM	Windham	Burr Hall	Eastern Connecticut State University	Building No. 5	$4,031,878	$919,415	$742,694	$1,732,952	$0	$1,485,388	$0	$0	$0	$0	$123,782,313	$74,269,388
(none)	HARTFORD	New Britain	Newman House	Central Connecticut State University		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
(none)	NEW HAVEN	Cheshire		DPS Cheshire	Canine Building	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
(none)	NEW HAVEN	Cheshire		DPS Cheshire	Canine Building	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
(none)	NEW HAVEN	Cheshire		DPS Cheshire	Future Expansion Area	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
3500-7643	HARTFORD	Hartford	DAS fleet vehicle facility			$624,000	$285,646	$136,447	$318,376	$0	$272,894	$0	$0	$0	$0	$22,741,154	$13,644,692
3002-6	HARTFORD	Hartford	Building C	Regional Market		$1,050,787	$285,646	$200,465	$467,752	$0	$400,930	$0	$0	$0	$0	$33,410,832	$20,046,499
3002-5	HARTFORD	Hartford	Building B	Regional Market		$4,543,438	$285,646	$724,363	$1,690,179	$0	$1,448,725	$0	$0	$0	$0	$120,727,107	$72,436,264
	HARTFORD	Hartford		Brainard Airport		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	HARTFORD	Hartford		Brainard Airport		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
3002-3	HARTFORD	Hartford	Farmer's Shed	Regional Market		$103,482	$285,646	$58,369	$136,195	$0	$116,738	$0	$0	$0	$0	$9,728,198	$5,836,919
5000-200	HARTFORD	Hartford	Office	Brainard Airport		$234,472	$13,753	$37,234	$86,879	$0	$74,468	$0	$0	$0	$0	$6,205,627	$3,723,376
	HARTFORD	Hartford		Brainard Airport		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
7803-13444	FAIRFIELD	Danbury	Old Main	Western Connecticut State University - Midtown Campus	Administration/Student Services	$2,740,721	$1,749,878	$673,590	$2,245,299	$0	$1,347,180	$0	$0	$0	$0	$112,264,970	$67,358,982
	LITCHFIELD	Litchfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	LITCHFIELD	Litchfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	LITCHFIELD	Litchfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	LITCHFIELD	Litchfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	LITCHFIELD	Washington		Department of Transportation		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	LITCHFIELD	Washington		Department of Transportation		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	LITCHFIELD	Washington		Department of Transportation		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	Cheshire				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
8000-7102	NEW HAVEN	Cheshire	Complex 2 K-9 Unit			$108,868	$18,458	$19,099	$63,663	$0	$38,198	$0	$0	$0	$0	$3,183,147	$1,909,888
	NEW HAVEN	Cheshire		Waterbury Regional Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	Cheshire		Waterbury Regional Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	Cheshire		Waterbury Regional Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	Cheshire				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	NEW HAVEN	Cheshire				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	Cheshire				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	Cheshire				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	Cheshire				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	Cheshire				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
4400-128	MIDDLESEX	Middletown	Water Filtration Plant Pump House			$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
4400-118	MIDDLESEX	Middletown	Sewage Disposal (old)			$440,751	$285,646	$108,960	$363,199	$0	$217,919	$0	$0	$0	$0	$18,159,928	$10,895,957
4400-33	MIDDLESEX	Middletown	Blacksmith Shop			$341,335	$1,384	$51,408	$171,359	$0	$102,816	$0	$0	$0	$0	$8,567,970	$5,140,782
2730	MIDDLESEX	Middletown	Grounds Office			$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
3100-101	MIDDLESEX	Portland	Storage			$5,308	$2,795	$1,215	$4,051	$0	$2,431	$0	$0	$0	$0	$202,568	$121,541
3100-90	MIDDLESEX	Portland	Saw Mill Shed			$137,511	$55,641	$28,973	$96,576	$0	$57,946	$0	$0	$0	$0	$4,828,804	$2,897,283
3100-98	MIDDLESEX	Portland	Administrative			$42,966	$285,646	$49,292	$164,306	$0	$98,584	$0	$0	$0	$0	$8,215,310	$4,929,186
3100-97	MIDDLESEX	Portland	Butler Building St.			$73,269	$285,646	$53,837	$179,458	$0	$107,675	$0	$0	$0	$0	$8,972,878	$5,383,727
3100-94	MIDDLESEX	Portland	Warehouse			$111,582	$1,709	$16,994	$56,645	$0	$33,987	$0	$0	$0	$0	$2,832,263	$1,699,358
3100-92	MIDDLESEX	Portland	Dwelling			$120,507	$285,646	$60,923	$203,077	$0	$121,846	$0	$0	$0	$0	$10,153,831	$6,092,298
3100-95	MIDDLESEX	Portland	Pump House			$2,519	$285,646	$43,225	$144,082	$0	$86,449	$0	$0	$0	$0	$7,204,123	$4,322,474
3100-85	MIDDLESEX	Portland	Small Saw Mill			$2,359	$285,646	$43,201	$144,003	$0	$86,402	$0	$0	$0	$0	$7,200,126	$4,320,075
3100-88	MIDDLESEX	Portland	Garage and Storage			$11,074	$46,813	$8,683	$28,943	$0	$17,366	$0	$0	$0	$0	$1,447,168	$868,301
3100-87	MIDDLESEX	Portland	Storage Garage Supply			$50,738	$285,646	$50,458	$168,192	$0	$100,915	$0	$0	$0	$0	$8,409,593	$5,045,756
2201-67	HARTFORD	Southington	Oms Shop			$573,347	$285,646	$128,849	$300,648	$0	$257,698	$0	$0	$0	$0	$21,474,839	$12,884,903
2201-8021	HARTFORD	Southington	Cold Storage Building			$551,615	$285,646	$125,589	$293,041	$0	$251,178	$0	$0	$0	$0	$20,931,529	$12,558,917
5000-683	HARTFORD	Southington	Salt Shed			$330,705	$285,646	$92,453	$215,723	$0	$184,905	$0	$0	$0	$0	$15,408,789	$9,245,273
5000-7213	HARTFORD	Berlin	Salt Shed			$734,492	$285,646	$153,021	$357,048	$0	$306,042	$0	$0	$0	$0	$25,503,460	$15,302,076
7302-27	HARTFORD	Farmington	Grounds Maintenance			$435,533	$771,991	$181,128	$422,633	$0	$362,257	$0	$0	$0	$0	$30,188,080	$18,112,848
7302-7	HARTFORD	Farmington	Dowling North			$2,179,493	$351,571	$379,660	$885,872	$0	$759,319	$0	$0	$0	$0	$63,276,596	$37,965,958
7302-19	HARTFORD	Farmington	7 Lab			$873,091	$520,376	$209,020	$487,713	$0	$418,040	$0	$0	$0	$0	$34,836,663	$20,901,998
7701-8338	HARTFORD	Farmington	Tunxis Phase I 600			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
7701-8346	HARTFORD	Farmington	Tunxis Phase II 700			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
7701-8349	HARTFORD	Farmington	Farmington House			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
1326-17	HARTFORD	Hartford	Grounds Division			$267,106	$41,328	$46,265	$107,952	$0	$92,530	$0	$0	$0	$0	$7,710,836	$4,626,502
9001-13	HARTFORD	Manchester	GA 12 Courthouse			$6,375,430	$107,987	$972,513	$2,269,196	$0	$1,945,025	$0	$0	$0	$0	$162,085,436	$97,251,262
3100-448	HARTFORD	Bloomfield	Big Barn Storage			$53,608	$285,646	$50,888	$118,739	$0	$101,776	$0	$0	$0	$0	$8,481,366	$5,088,819

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
3100-447	HARTFORD	Bloomfield	Open Shelter			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
3100-445	HARTFORD	Bloomfield	Office			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
3100-443	HARTFORD	Bloomfield	Flush Toilet			$48,920	$285,646	$50,185	$117,098	$0	$100,370	$0	$0	$0	$0	$8,364,163	$5,018,498
3100-446	HARTFORD	Bloomfield	Pole Barn			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
3100-444	HARTFORD	Bloomfield	Pump House			$3,253	$285,646	$43,335	$101,115	$0	$86,670	$0	$0	$0	$0	$7,222,479	$4,333,487
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
7301-44	TOLLAND	Mansfield	0069 Holcomb Hall	University of Connecticut - Storrs Campus	Residence	$3,980,490	$45,224	$603,857	$1,409,000	$0	$1,207,714	$0	$0	$0	$0	$100,642,856	$60,385,714
7301-281	TOLLAND	Mansfield	1037 Northwood Apartments, Bldg 2	University of Connecticut - Storrs Campus		$656,308	$285,646	$141,293	$329,684	$0	$282,586	$0	$0	$0	$0	$23,548,856	$14,129,314
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW LONDON	Preston				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
5000-78	NEW LONDON	Lisbon	Maintenance Garage	Not Part Of A Facility	Maintenance/Repair Shop	$115,633	$53,753	$25,408	$84,693	$0	$50,816	$0	$0	$0	$0	$4,234,633	$2,540,780
	TOLLAND	Mansfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	TOLLAND	Mansfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	TOLLAND	Mansfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
7301-462	TOLLAND	Mansfield	2130 Depot - Johnstone Hall	University of Connecticut - Depot		$531,018	$285,646	$122,500	$285,832	$0	$244,999	$0	$0	$0	$0	$20,416,597	$12,249,958
7301-435	TOLLAND	Mansfield	2101 Depot - Ashford Cottage	University of Connecticut - Depot		$330,983	$285,646	$92,494	$215,820	$0	$184,989	$0	$0	$0	$0	$15,415,731	$9,249,439
7301-434	TOLLAND	Mansfield	2100 Depot - Andover Cottage	University of Connecticut - Depot		$652,628	$285,646	$140,741	$328,396	$0	$281,482	$0	$0	$0	$0	$23,456,850	$14,074,110
7301-489	TOLLAND	Mansfield	2167 Depot - Tolland Cottage	University of Connecticut - Depot		$378,273	$33,725	$61,800	$144,199	$0	$123,599	$0	$0	$0	$0	$10,299,942	$6,179,965

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
7301-457	TOLLAND	Mansfield	2125 Depot - Hebron Cottage	University of Connecticut - Depot		$381,428	$16,500	$59,689	$139,275	$0	$119,378	$0	$0	$0	$0	$9,948,200	$5,968,920
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
4125-414126	NEW LONDON	Franklin	Franklin Gh	Not Part Of A Facility	Residence	$398,754	$19,743	$62,775	$209,249	$0	$125,549	$0	$0	$0	$0	$10,462,438	$6,277,463
4125-8338	NEW LONDON	Franklin	Franklin Maintenance Garage	South Central Region	Maintenance/Repair Shop	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
5000-4189	TOLLAND	Mansfield	Mix Shed	DOT Mansfield Garage and Storage		$75,631	$285,646	$54,192	$126,447	$0	$108,383	$0	$0	$0	$0	$9,031,937	$5,419,162
5000-497	TOLLAND	Mansfield	Salt Shed	DOT Mansfield Garage and Storage	Salt Storage	$311,251	$285,646	$89,535	$208,914	$0	$179,069	$0	$0	$0	$0	$14,922,439	$8,953,463
5000-157	TOLLAND	Willington	Visitors Center	I-84 Rest Area EB	Rest Area/Information/Office Building	$883,628	$1,908	$132,830	$309,938	$0	$265,661	$0	$0	$0	$0	$22,138,400	$13,283,040
5000-158	TOLLAND	Willington	Visitors Center	I-84 Rest Area WB	Rest Area/Information/Office Building	$844,787	$11,339	$128,419	$299,644	$0	$256,838	$0	$0	$0	$0	$21,403,147	$12,841,888
5000-7118	TOLLAND	Willington	Maintenance Garage	Willington DOT Garage	Maintenance/Repair Shop	$1,990,293	$163,875	$323,125	$753,959	$0	$646,250	$0	$0	$0	$0	$53,854,203	$32,312,522
5000-379	TOLLAND	Willington	Radio Shack	Willington DOT Cell Tower	Communications	$10,729	$14,299	$3,754	$8,760	$0	$7,509	$0	$0	$0	$0	$625,711	$375,426
9001-27	WINDHAM	Windham	JD Courthouse	Not Part Of A Facility	Court	$2,416,193	$1,116,392	$529,888	$1,236,405	$0	$1,059,776	$0	$0	$0	$0	$88,314,627	$52,988,776
4122-74123	TOLLAND	Vernon	49 Tunnel Road	Hartford Center	Residence	$86,437	$285,646	$55,813	$130,229	$0	$111,625	$0	$0	$0	$0	$9,302,086	$5,581,251
5000-107	TOLLAND	Vernon	Storage Building	Vernon DOT Garage and Storage	Storage Building	$79,317	$12,744	$13,809	$32,221	$0	$27,618	$0	$0	$0	$0	$2,301,523	$1,380,914
5000-173	TOLLAND	Vernon	Maintenance Garage & Office	Vernon DOT Garage and Storage	Maintenance/Repair Shop	$1,193,910	$345,044	$230,843	$538,634	$0	$461,686	$0	$0	$0	$0	$38,473,845	$23,084,307
5000-535	TOLLAND	Vernon	Salt Shed	Vernon DOT Garage and Storage	Salt Shed	$316,467	$285,646	$90,317	$210,739	$0	$180,634	$0	$0	$0	$0	$15,052,818	$9,031,691
9001-28	TOLLAND	Vernon	JD Courthouse	Not Part Of A Facility	Court	$5,216,261	$2,048,551	$1,089,722	$2,542,684	$0	$2,179,444	$0	$0	$0	$0	$181,620,307	$108,972,184
7301-146	TOLLAND	Mansfield	0232 Planetarium	University of Connecticut - Storrs Campus	Education	$58,019	$285,646	$51,550	$120,283	$0	$103,100	$0	$0	$0	$0	$8,591,631	$5,154,978
7301-147	TOLLAND	Mansfield	0233 Drama Music Building	University of Connecticut - Storrs Campus	Education	$7,463,818	$606,355	$1,210,526	$2,824,561	$0	$2,421,052	$0	$0	$0	$0	$201,754,334	$121,052,601
7301-148	TOLLAND	Mansfield	0234 Music Building	University of Connecticut - Storrs Campus	Education	$10,125,509	$1,154,010	$1,691,928	$3,947,832	$0	$3,383,856	$0	$0	$0	$0	$281,987,984	$169,192,790

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
7301-154	TOLLAND	Mansfield	0240 Jones Building (Nutr Sciences)	University of Connecticut - Storrs Campus	Education	$5,001,714	$1,290,207	$943,788	$2,202,173	$0	$1,887,576	$0	$0	$0	$0	$157,298,038	$94,378,823
7301-155	TOLLAND	Mansfield	0241Jones Annex Bldg	University of Connecticut - Storrs Campus	Cafeteria/Food Service	$2,055,599	$457,859	$377,019	$879,710	$0	$754,037	$0	$0	$0	$0	$62,836,447	$37,701,868
7301-158	TOLLAND	Mansfield	0243 House 55	University of Connecticut - Storrs Campus	Residence	$113,990	$285,646	$59,945	$139,873	$0	$119,891	$0	$0	$0	$0	$9,990,915	$5,994,549
7301-190	TOLLAND	Mansfield	0295 Buckley Hall	University of Connecticut - Storrs Campus	Residence	$17,896,953	$221,238	$2,717,729	$6,341,367	$0	$5,435,457	$0	$0	$0	$0	$452,954,765	$271,772,859
7301-198	TOLLAND	Mansfield	0308 Baseball Dugout 1st Base	University of Connecticut - Storrs Campus		$36,225	$285,646	$48,281	$112,655	$0	$96,561	$0	$0	$0	$0	$8,046,777	$4,828,066
7301-205	TOLLAND	Mansfield	0318 Bronwell Building (Arthur B.)	University of Connecticut - Storrs Campus		$9,128,873	$3,009,223	$1,820,714	$4,248,333	$0	$3,641,429	$0	$0	$0	$0	$303,452,391	$182,071,435
7301-232	TOLLAND	Mansfield	0350 Campus Shopping Plaza	University of Connecticut - Storrs Campus		$1,656,695	$285,646	$291,351	$679,820	$0	$582,702	$0	$0	$0	$0	$48,558,536	$29,135,122
7301-246	TOLLAND	Mansfield	0366 Soccer Ticket Booth North	University of Connecticut - Storrs Campus		$2,925	$285,646	$43,286	$101,000	$0	$86,571	$0	$0	$0	$0	$7,214,270	$4,328,562
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
7301-294	TOLLAND	Mansfield	1050 House 49	University of Connecticut - Storrs Campus	Residential	$83,806	$285,646	$55,418	$129,308	$0	$110,836	$0	$0	$0	$0	$9,236,303	$5,541,782
	TOLLAND	Mansfield	1050 House 49 Garage	University of Connecticut - Storrs Campus	Garage	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW LONDON	Montville				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW LONDON	Montville				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW LONDON	Montville				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	WINDHAM	Plainfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	WINDHAM	Plainfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	WINDHAM	Killingly				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
3100-482	WINDHAM	Thompson	Bath House	Quaddick State Park		$15,343	$285,646	$45,148	$105,346	$0	$90,297	$0	$0	$0	$0	$7,524,737	$4,514,842
5000-4222	WINDHAM	Thompson	Calsalt Shed	Thompson Salt Storage	Shed	$60,668	$285,646	$51,947	$121,210	$0	$103,894	$0	$0	$0	$0	$8,657,854	$5,194,713

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	WINDHAM	Putnam				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
5000-502	TOLLAND	Union	WIM Booth (Weigh In Motion)	Union Weigh and Inspection Station	Weigh and Inspection Station	$25,936	$285,646	$46,737	$109,054	$0	$93,475	$0	$0	$0	$0	$7,789,564	$4,673,738
	LITCHFIELD	Kent				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	LITCHFIELD	Kent				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	LITCHFIELD	Kent				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	LITCHFIELD	Kent				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	LITCHFIELD	Kent				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	LITCHFIELD	Kent				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	LITCHFIELD	Kent				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	LITCHFIELD	Kent				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	LITCHFIELD	Kent				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	LITCHFIELD	Kent				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	FAIRFIELD	New Fairfield				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	FAIRFIELD	New Fairfield				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	FAIRFIELD	New Fairfield				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	FAIRFIELD	New Fairfield				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	FAIRFIELD	New Fairfield				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	FAIRFIELD	New Fairfield				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	FAIRFIELD	New Fairfield				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	FAIRFIELD	Brookfield				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	Bethany				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	Bethany				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	Bethany				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	Hamden				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	Hamden				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	Hamden				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	Hamden				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	Hamden				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	Hamden				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	NEW HAVEN	Hamden				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	West Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	West Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	Milford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	Milford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	Milford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	Milford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	FAIRFIELD	Newtown				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	FAIRFIELD	Newtown				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	FAIRFIELD	Newtown				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	FAIRFIELD	Newtown				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	FAIRFIELD	Newtown				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	FAIRFIELD	Newtown				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	FAIRFIELD	Newtown				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	FAIRFIELD	Westport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	FAIRFIELD	Westport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	FAIRFIELD	Westport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	FAIRFIELD	Norwalk				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	FAIRFIELD	Norwalk				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	FAIRFIELD	Norwalk				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	FAIRFIELD	Norwalk				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	FAIRFIELD	Norwalk				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	FAIRFIELD	New Canaan				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	FAIRFIELD	New Canaan				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	TOLLAND	Stafford		Furnace Brook-Middle River Flood Control Site 5	Shed	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	NEW HAVEN	Wallingford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	North Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	North Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	Southbury				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	Southbury				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	Southbury				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW HAVEN	Oxford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	LITCHFIELD	Cornwall				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	TOLLAND	Willington		I-84 Rest Area WB	Storage	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
3100-555	TOLLAND	Hebron	Gay City Supervisor 2 Car Garage	Gay City State Park	Garage	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	NEW LONDON	Griswold		Griswold Research Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
5000-4199	NEW LONDON	Voluntown	Sand/Salt Storage Shed	DOT Griswold Sand & Salt Storage	Storage	$238,129	$285,646	$78,566	$261,888	$0	$157,133	$0	$0	$0	$0	$13,094,379	$7,856,628
	WINDHAM	Killingly				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
8000-104	HARTFORD	Enfield	Housing Unit #2	Enfield Correctional Institution		$1,207,285	$12,067	$182,903	$426,773	$365,806	$365,806	$0	$0	$0	$0	$30,483,794	$18,290,277
	HARTFORD	Suffield		MacDougall-Walker Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	HARTFORD	Enfield				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
4101-40	NEW HAVEN	Southbury	Cottage 31	Southbury Training School		$604,941	$285,646	$133,588	$445,294	$267,176	$267,176	$0	$0	$0	$0	$22,264,688	$13,358,813
4101-39	NEW HAVEN	Southbury	Cottage 30	Southbury Training School		$604,941	$285,646	$133,588	$445,294	$267,176	$267,176	$0	$0	$0	$0	$22,264,688	$13,358,813
4101-29	NEW HAVEN	Southbury	Cottage 20	Southbury Training School		$364,912	$285,646	$97,584	$325,279	$195,167	$195,167	$0	$0	$0	$0	$16,263,944	$9,758,366
4101-47	NEW HAVEN	Southbury	Cottage 42	Southbury Training School		$699,037	$285,646	$147,703	$492,342	$295,405	$295,405	$0	$0	$0	$0	$24,617,089	$14,770,253
	HARTFORD	Suffield				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	HARTFORD	Suffield				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$65,178,082	$39,106,849
(none)	HARTFORD	Hartford		CT Community Colleges System Office	Shed	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$0	$0	$65,178,082	$39,106,849
(none)	FAIRFIELD	Bridgeport		Superior Court and Center for Juvenile Matters	Courthouse and Juvenile Detention	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$0	$0	$65,178,082	$39,106,849
	HARTFORD	Newington				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$0	$0	$65,178,082	$39,106,849
	HARTFORD	Newington				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$0	$0	$65,178,082	$39,106,849
2000-505	HARTFORD	Glastonbury	John Tom Hill Road Radio Tower			$330,582	$285,646	$92,434	$215,680	$0	$184,869	$215,680	$0	$0	$0	$15,405,713	$9,243,428
7301-113	TOLLAND	Mansfield	0190 Mansfield Apartments Building 14 (4 Units)	University of Connecticut - Storrs Campus	Residence	$596,305	$285,646	$132,293	$308,683	$0	$264,585	$308,683	$0	$0	$0	$22,048,767	$13,229,260
7301-199	TOLLAND	Mansfield	0309 Baseball Dugout 3rd Base	University of Connecticut - Storrs Campus		$36,225	$285,646	$48,281	$112,655	$0	$96,561	$112,655	$0	$0	$0	$8,046,777	$4,828,066
	NEW HAVEN	Oxford	Key Air Hanger F	Waterbury-Oxford Airport		$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$2,607,123	$0	$0	$65,178,082	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$2,607,123	$0	$0	$65,178,082	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$2,607,123	$0	$0	$65,178,082	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$2,607,123	$0	$0	$65,178,082	$39,106,849
7804-31	NEW HAVEN	Hamden	North Campus Residence Complex	Southern Connecticut State University	Building No. 34, Residence	$11,778,740	$1,479,834	$1,988,786	$6,629,287	$0	$3,977,572	$0	$0	$0	$13,258,574	$331,464,362	$198,878,617
7001-41	FAIRFIELD	Danbury	Renovated Service Garage	Henry Abbott Technical High School	Maintenance/Repair Shop	$35,167	$285,646	$48,122	$160,407	$0	$96,244	$0	$0	$0	$320,813	$8,020,336	$4,812,202
(none)	NEW HAVEN	Hamden		Eli Whitney Technical High School	Guard Shack	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$2,607,123	$65,178,082	$39,106,849
(none)	NEW HAVEN	Hamden		Eli Whitney Technical High School	Maintenance/Repair Shop	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$2,607,123	$65,178,082	$39,106,849
(none)	NEW LONDON	Norwich		Norwich Technical High School	Gazebo	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$2,607,123	$65,178,082	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
(none)	NEW LONDON	Norwich	Garage	Norwich Technical High School	Garage	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$2,607,123	$65,178,082	$39,106,849
7803-16444	FAIRFIELD	Danbury	Pinney Hall	Western Connecticut State University - Westside Campus	Student Life	$23,805,477	$110,234	$3,587,357	$11,957,856	$0	$7,174,713	$0	$0	$0	$23,915,712	$597,892,789	$358,735,674
7803-7641	FAIRFIELD	Danbury	Athletics Complex	Western Connecticut State University - Westside Campus	Athletics/Recreation	$5,269,717	$96,305	$804,903	$2,683,011	$0	$1,609,807	$0	$0	$0	$5,366,022	$134,150,546	$80,490,327
(none)	FAIRFIELD	Danbury		Western Connecticut State University - Midtown Campus	Garage	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$2,607,123	$65,178,082	$39,106,849
7804-7118	NEW HAVEN	New Haven	Nursing Classroom Building	Southern Connecticut State University	Building No. 2, Education	$849,679	$209,914	$158,939	$529,797	$0	$317,878	$0	$0	$211,919	$0	$26,489,826	$15,893,896
7804-7104	NEW HAVEN	New Haven	Parking Garage (Fitch Street)	Southern Connecticut State University	Garage	$7,621,699	$285,646	$1,186,102	$3,953,673	$0	$2,372,204	$0	$0	$1,581,469	$0	$197,683,629	$118,610,178
7804-479	NEW HAVEN	Hamden	Facilities Operations	Southern Connecticut State University	Building No. 1, Office and Storage	$5,333,919	$1,304,303	$995,733	$3,319,111	$0	$1,991,467	$0	$0	$1,327,644	$0	$165,955,551	$99,573,330
7804-7114	NEW HAVEN	New Haven	Energy Center	Southern Connecticut State University	Building No. 30, Other	$21,755,607	$155,852	$3,286,719	$10,955,729	$0	$6,573,438	$0	$0	$4,382,292	$0	$547,786,466	$328,671,880
7804-7113	NEW HAVEN	New Haven	Temporary Building TE7	Southern Connecticut State University	Building No. 5, Temporary IT Building	$2,321,477	$745,094	$459,986	$1,533,286	$0	$919,971	$0	$0	$613,314	$0	$76,664,278	$45,998,567
7804-480	NEW HAVEN	Hamden	Facilities Garage	Southern Connecticut State University	Maintenance Garage	$1,229,834	$246,504	$221,451	$738,169	$0	$442,901	$0	$0	$295,268	$0	$36,908,458	$22,145,075
7804-12	NEW HAVEN	New Haven	Neff Hall	Southern Connecticut State University	Building No.26, Residence	$7,043,074	$140,770	$1,077,577	$3,591,922	$0	$2,155,153	$0	$0	$1,436,769	$0	$179,596,099	$107,757,659
7804-7115	NEW HAVEN	New Haven	West Campus Residence Complex	Southern Connecticut State University	Building No. 27, Residence	$18,458,933	$1,235,638	$2,954,186	$9,847,286	$0	$5,908,371	$0	$0	$3,938,914	$0	$492,364,277	$295,418,566
7804-7116	NEW HAVEN	New Haven	Parking Garage (West Campus)	Southern Connecticut	Garage	$6,568,074	$285,646	$1,028,058	$3,426,860	$0	$2,056,116	$0	$0	$1,370,744	$0	$171,343,001	$102,805,801

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
				State University													
(unknown)	NEW HAVEN	New Haven		Southern Connecticut State University	(demolished)	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
(unknown)	NEW HAVEN	New Haven		Southern Connecticut State University	(demolished)	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
(unknown)	NEW HAVEN	New Haven		Southern Connecticut State University	(demolished)	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
(none)	WINDHAM	Killingly		H.H. Ellis Technical High School	Softball Field Structure	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	Norwich		Uncas-on-Thames Hospital		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	Norwich		Uncas-on-Thames Hospital		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
4400-63	MIDDLESEX	Middletown	Cottage 25	Connecticut Valley Hospital		$116,773	$285,646	$60,363	$201,210	$0	$120,726	$0	$0	$80,484	$0	$10,060,479	$6,036,287
4400-60	MIDDLESEX	Middletown	Cottage 21	Connecticut Valley Hospital		$100,875	$285,646	$57,978	$193,261	$0	$115,956	$0	$0	$77,304	$0	$9,663,036	$5,797,822
4400-61	MIDDLESEX	Middletown	Cottage 22	Connecticut Valley Hospital		$100,875	$285,646	$57,978	$193,261	$0	$115,956	$0	$0	$77,304	$0	$9,663,036	$5,797,822
4400-58	MIDDLESEX	Middletown	Cottage 19	Connecticut Valley Hospital		$529,204	$285,646	$122,228	$407,425	$0	$244,455	$0	$0	$162,970	$0	$20,371,260	$12,222,756
4400-66	MIDDLESEX	Middletown	Cottage 28	Connecticut Valley Hospital		$116,773	$285,646	$60,363	$201,210	$0	$120,726	$0	$0	$80,484	$0	$10,060,479	$6,036,287
1326-519	NEW HAVEN	Meriden	Residence #11 (DDS)	Henry D. Altobello Children & Youth Center		$6,918	$285,646	$43,885	$146,282	$0	$87,769	$0	$0	$58,513	$0	$7,314,098	$4,388,459
1326-526	NEW HAVEN	Meriden	Residence #10 (DDS)	Henry D. Altobello Children & Youth Center		$101,707	$285,646	$58,103	$193,677	$0	$116,206	$0	$0	$77,471	$0	$9,683,836	$5,810,302
1326-514	NEW HAVEN	Meriden	Residence #12 (DDS)	Henry D. Altobello Children & Youth Center		$47,070	$285,646	$49,907	$166,358	$0	$99,815	$0	$0	$66,543	$0	$8,317,895	$4,990,737
4125-274125	NEW HAVEN	Meriden	Maintenance Building (DDS)	Henry D. Altobello Children & Youth Center		$2,321,477	$42,878	$354,653	$1,182,178	$0	$709,307	$0	$0	$472,871	$0	$59,108,878	$35,465,327

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	NEW HAVEN	Meriden		Connecticut Police Academy		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
8000-336	MIDDLESEX	Haddam	Classroom-Haddam			$129,522	$285,646	$62,275	$207,584	$0	$124,551	$0	$0	$83,034	$0	$10,379,213	$6,227,528
5000-823	MIDDLESEX	Haddam	Storage Building			$1,907	$285,646	$43,133	$143,777	$0	$86,266	$0	$0	$57,511	$0	$7,188,830	$4,313,298
5000-458	MIDDLESEX	Haddam	Salt Bin			$8,353	$285,646	$44,100	$146,999	$0	$88,200	$0	$0	$58,800	$0	$7,349,972	$4,409,983
3100-109	MIDDLESEX	East Haddam	Geer House			$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
1326-488	HARTFORD	Farmington	Office of CHief Medical Examiner			$6,743,668	$285,646	$1,054,397	$2,460,260	$0	$2,108,794	$0	$0	$1,405,863	$0	$175,732,854	$105,439,712
3100-566	HARTFORD	Farmington	Tarplin House			$67,687	$285,646	$53,000	$123,666	$0	$106,000	$0	$0	$70,667	$0	$8,833,320	$5,299,992
3100-1361	HARTFORD	Farmington	Chicken Coop			$119	$285,646	$42,865	$100,018	$0	$85,730	$0	$0	$57,153	$0	$7,144,133	$4,286,480
3100-567	HARTFORD	Farmington	Workshop and Storage			$2,321,477	$3,610	$348,763	$813,780	$0	$697,526	$0	$0	$465,017	$0	$58,127,168	$34,876,301
7302-21	HARTFORD	Farmington	Fire House Addition			$247,702	$270,949	$77,798	$181,528	$0	$155,595	$0	$0	$103,730	$0	$12,966,276	$7,779,766
7302-7813	HARTFORD	Farmington	The Exchange			$2,321,477	$844,326	$474,870	$1,108,031	$0	$949,741	$0	$0	$633,161	$0	$79,145,081	$47,487,049
7302-16	HARTFORD	Farmington	4 Lab			$881,194	$195,371	$161,485	$376,798	$0	$322,969	$0	$0	$215,313	$0	$26,914,120	$16,148,472
7701-451	HARTFORD	Farmington	Bidstrup Building			$250,111	$285,646	$80,364	$187,515	$0	$160,727	$0	$0	$107,151	$0	$13,393,918	$8,036,350
7701-28	HARTFORD	Farmington	Academic East			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
7701-30	HARTFORD	Farmington	Faculty/Student Services			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
1326-19	HARTFORD	Hartford	21 Grand Street			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
1326-485	HARTFORD	Hartford	460 Capitol Ave			$1,276,315	$235,700	$226,802	$529,205	$0	$453,605	$0	$0	$302,403	$0	$37,800,384	$22,680,230
1326-485	HARTFORD	Hartford	470 Capitol Ave			$1,276,315	$235,700	$226,802	$529,205	$0	$453,605	$0	$0	$302,403	$0	$37,800,384	$22,680,230
1326-7957	HARTFORD	Hartford	Day Care/Laboratory School			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
7001-7102	HARTFORD	Hartford	Connecticut Aero Tech School			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
4122-104123	HARTFORD	Manchester				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
4122-254122	HARTFORD	Granby	65 Salmon Brook Road			$198,267	$1,399	$29,950	$69,883	$0	$59,900	$0	$0	$39,933	$0	$4,991,655	$2,994,993
	WINDHAM	Putnam				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	WINDHAM	Putnam				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	WINDHAM	Putnam				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	WINDHAM	Putnam				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	WINDHAM	Killingly				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	TOLLAND	Mansfield		UConn - Spring Hill Farm		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	TOLLAND	Mansfield		UConn - Spring Hill Farm		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	TOLLAND	Mansfield		UConn - Spring Hill Farm	Greenhouse	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	TOLLAND	Mansfield		UConn - Spring Hill Farm		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
7301-109	TOLLAND	Mansfield	0186 Mansfield Apartments Building 10 (4 Units)	University of Connecticut - Storrs Campus	Residence	$599,383	$1,119	$90,075	$210,176	$0	$180,151	$0	$0	$120,101	$0	$15,012,572	$9,007,543
7301-521	TOLLAND	Mansfield	0427 Snow Hall / South Camp. C	University of Connecticut - Storrs Campus	Residence	$10,655,253	$162,468	$1,622,658	$3,786,202	$0	$3,245,316	$0	$0	$2,163,544	$0	$270,443,025	$162,265,815
7301-522	TOLLAND	Mansfield	0428 Rpme Commons /South D Rome	University of Connecticut - Storrs Campus	Cafeteria/Food Service	$11,005,556	$844,567	$1,777,518	$4,147,543	$0	$3,555,037	$0	$0	$2,370,025	$0	$296,253,071	$177,751,842
7301-520	TOLLAND	Mansfield	0426 Rosebrooks Hall /South Camp. B	University of Connecticut - Storrs Campus	Residence	$12,102,849	$107,671	$1,831,578	$4,273,682	$0	$3,663,156	$0	$0	$2,442,104	$0	$305,262,991	$183,157,794
7301-7215	TOLLAND	Mansfield	0418 Uconn CO-OP	University of Connecticut - Storrs Campus	Other	$7,267,615	$25,770	$1,094,008	$2,552,685	$0	$2,188,015	$0	$0	$1,458,677	$0	$182,334,624	$109,400,774
7301-7223	TOLLAND	Mansfield	0467 Busby Suites	University of Connecticut - Storrs Campus	Residence	$14,470,862	$65,560	$2,180,463	$5,087,748	$0	$4,360,927	$0	$0	$2,907,284	$0	$363,410,552	$218,046,331
7301-7230	TOLLAND	Mansfield	0474 Husky Village/Greek F1,F2	University of Connecticut - Storrs Campus	Residence	$1,074,465	$285,646	$204,017	$476,039	$0	$408,033	$0	$0	$272,022	$0	$34,002,779	$20,401,668
7301-7231	TOLLAND	Mansfield	0475 Husky Village Director's House	University of Connecticut - Storrs Campus	Residence	$194,015	$8,293	$30,346	$70,808	$0	$60,692	$0	$0	$40,462	$0	$5,057,693	$3,034,616
7301-7219	TOLLAND	Mansfield	0463 Thompson Hall (ME)	University of Connecticut - Storrs Campus	Residence	$3,445,443	$7,648	$517,964	$1,208,582	$0	$1,035,927	$0	$0	$690,618	$0	$86,327,283	$51,796,370
7301-7218	TOLLAND	Mansfield	0462 Hoisington Hall (NH)	University of Connecticut - Storrs Campus	Residence	$4,134,532	$285,646	$663,027	$1,547,062	$0	$1,326,053	$0	$0	$884,036	$0	$110,504,453	$66,302,672
7301-7217	TOLLAND	Mansfield	0461 Foster Hall (VT)	University of Connecticut - Storrs Campus	Residence	$3,445,443	$22,621	$520,210	$1,213,823	$0	$1,040,419	$0	$0	$693,613	$0	$86,701,616	$52,020,969
7301-7220	TOLLAND	Mansfield	0464 Brown Hall (CT)	University of Connecticut - Storrs Campus	Residence	$2,756,355	$285,646	$456,300	$1,064,700	$0	$912,600	$0	$0	$608,400	$0	$76,050,019	$45,630,011
7301-7221	TOLLAND	Mansfield	0465 Hubbard Hall (RI)	University of Connecticut - Storrs Campus	Residence	$2,756,355	$285,646	$456,300	$1,064,700	$0	$912,600	$0	$0	$608,400	$0	$76,050,019	$45,630,011
7301-7222	TOLLAND	Mansfield	0466 Hough Hall (MA)	University of Connecticut - Storrs Campus	Residence	$2,756,355	$285,646	$456,300	$1,064,700	$0	$912,600	$0	$0	$608,400	$0	$76,050,019	$45,630,011
7301-7224	TOLLAND	Mansfield	0468 Charter Oaks Comm. Center	University of Connecticut - Storrs Campus	Other	$698,270	$95,847	$119,118	$277,941	$0	$238,235	$0	$0	$158,823	$0	$19,852,923	$11,911,754
7301-249	TOLLAND	Mansfield	0370 Facilities Trailer	University of Connecticut - Storrs Campus		$26,815	$2,613	$4,414	$10,300	$0	$8,828	$0	$0	$5,885	$0	$735,686	$441,412
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus	Barn	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
7301-288	TOLLAND	Mansfield	1044 Northwood Apartments, Bldg 9	University of Connecticut - Storrs Campus		$622,762	$285,646	$136,261	$317,943	$0	$272,523	$0	$0	$181,682	$0	$22,710,214	$13,626,129
5000-706	TOLLAND	Union	Salt Shed	Union Salt Storage and Garage		$331,857	$285,646	$92,625	$216,126	$0	$185,251	$0	$0	$123,501	$0	$15,437,573	$9,262,544
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
7301-490	TOLLAND	Mansfield	2168 Depot - Tredgold Hall	University of Connecticut - Depot		$478,860	$285,646	$114,676	$267,577	$0	$229,352	$0	$0	$152,901	$0	$19,112,662	$11,467,597
7301-486	TOLLAND	Mansfield	2163 Depot - Storehouse (DRL Warehouse)	University of Connecticut - Depot	Storehouse	$987,328	$168,256	$173,338	$404,455	$0	$346,675	$0	$0	$231,117	$0	$28,889,614	$17,333,768
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
7301-460	TOLLAND	Mansfield	2128 Depot - Hilltop Cottage	University of Connecticut - Depot		$55,565	$285,646	$51,182	$119,424	$0	$102,363	$0	$0	$68,242	$0	$8,530,279	$5,118,167
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
4122-24123	TOLLAND	Mansfield	505 Middle Turnpike	Not Part Of A Facility	Residence	$288,481	$1,209	$43,454	$101,392	$0	$86,907	$0	$0	$57,938	$0	$7,242,258	$4,345,355
5000-175	TOLLAND	Mansfield	Maintenance Garage	DOT Mansfield Garage and Storage	Maintenance/Repair Shop	$3,016,110	$233,223	$487,400	$1,137,266	$0	$974,800	$0	$0	$649,867	$0	$81,233,320	$48,739,992
7301-99	TOLLAND	Mansfield	0176 Hicks Hall	University of Connecticut - Storrs Campus	Residence	$6,381,072	$26,566	$961,146	$2,242,673	$0	$1,922,291	$0	$0	$1,281,528	$0	$160,190,950	$96,114,570
7301-7157	TOLLAND	Mansfield	0175 Young Bldg (Col of Ag & Nr)	University of Connecticut - Storrs Campus	Education	$7,406,159	$2,994,290	$1,560,067	$3,640,157	$0	$3,120,135	$0	$0	$2,080,090	$0	$260,011,212	$156,006,727
7301-100	TOLLAND	Mansfield	0177 Grange Hall	University of Connecticut - Storrs Campus	Residence	$6,392,427	$17,161	$961,438	$2,243,356	$0	$1,922,876	$0	$0	$1,281,918	$0	$160,239,697	$96,143,818
7301-7783	TOLLAND	Mansfield	0480 Burton Football Complex & Shenkman	University of Connecticut - Storrs Campus	Sports/Gymnasium	$32,756,074	$1,648,515	$5,160,688	$12,041,606	$0	$10,321,377	$0	$0	$6,880,918	$0	$860,114,740	$516,068,844
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
7301-7188	TOLLAND	Mansfield	0443 Grasso Hall, Hilltop Apt. 10	University of Connecticut - Storrs Campus	Residence	$3,290,556	$285,646	$536,430	$1,251,671	$0	$1,072,861	$0	$0	$715,241	$0	$89,405,064	$53,643,038
5000-510	TOLLAND	Bolton	Maintenance Garage	Bolton DOT Garage and Storage	Maintenance/Repair Shop	$2,205,510	$184,593	$358,515	$836,536	$0	$717,031	$0	$0	$478,020	$0	$59,752,562	$35,851,537

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	WINDHAM	Brooklyn				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
2000-7108	WINDHAM	Brooklyn	Brooklyn Radio Tower	Not Part Of A Facility	Radio/Communications	$296,258	$364,327	$99,088	$231,205	$0	$198,175	$0	$0	$132,117	$0	$16,514,622	$9,908,773
4122-134123	WINDHAM	Brooklyn	Windham Road	Not Part Of A Facility	Residence	$296,465	$10,326	$46,019	$107,377	$0	$92,037	$0	$0	$61,358	$0	$7,669,768	$4,601,861
9001-28	TOLLAND	Vernon	Tolland Judicial District Superior Court	Tolland Judicial District	Courthouse	$5,216,261	$2,048,551	$1,089,722	$2,542,684	$0	$2,179,444	$0	$0	$1,452,962	$0	$181,620,307	$108,972,184
	TOLLAND	Mansfield		Bergin Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	TOLLAND	Mansfield		Bergin Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	TOLLAND	Mansfield		UConn - Spring Hill Farm		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	TOLLAND	Mansfield		UConn - Spring Hill Farm		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	TOLLAND	Mansfield		Eastern Connecticut State University - Mansfield Sports Complex		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	TOLLAND	Mansfield		Eastern Connecticut State University - Mansfield Sports Complex		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	TOLLAND	Mansfield		Eastern Connecticut State University - Mansfield Sports Complex		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	Montville				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	Montville				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	Montville				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	Montville				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	Montville				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	Hamden				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	Hamden				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	Hamden				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	Hamden				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	Hamden				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	Hamden				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	Woodbridge				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	Woodbridge				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	Woodbridge				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	New Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	FAIRFIELD	Newtown				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	FAIRFIELD	Newtown				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	FAIRFIELD	Newtown				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	Wolcott		Department of Transportation		$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	Wolcott		Department of Transportation		$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	Wolcott		Department of Transportation		$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	Wolcott		Department of Transportation		$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	Wolcott		Department of Transportation		$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
	HARTFORD	Enfield				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$0	$65,178,082	$39,106,849
4101-110	NEW HAVEN	Southbury	Pump House 2	Southbury Training School		$7,697	$285,646	$44,001	$146,671	$88,003	$88,003	$0	$0	$58,669	$0	$7,333,572	$4,400,143
4101-106	NEW HAVEN	Southbury	Prefab Building #1	Southbury Training School		$150,915	$285,646	$65,484	$218,280	$130,968	$130,968	$0	$0	$87,312	$0	$10,914,024	$6,548,415
4101-107	NEW HAVEN	Southbury	Prefab Building #2	Southbury Training School		$150,915	$285,646	$65,484	$218,280	$130,968	$130,968	$0	$0	$87,312	$0	$10,914,024	$6,548,415
4101-20	NEW HAVEN	Southbury	Cottage 9	Southbury Training School		$265,421	$285,646	$82,660	$275,534	$165,320	$165,320	$0	$0	$110,213	$0	$13,776,682	$8,266,009
4101-15	NEW HAVEN	Southbury	Cottage 5	Southbury Training School		$333,984	$285,646	$92,945	$309,815	$185,889	$185,889	$0	$0	$123,926	$0	$15,490,756	$9,294,453
4101-125	NEW HAVEN	Southbury	Staff House 1	Southbury Training School		$107,149	$285,646	$58,919	$196,398	$117,839	$117,839	$0	$0	$78,559	$0	$9,819,887	$5,891,932

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
4101-74	NEW HAVEN	Southbury	P1- Crawford Hall	Southbury Training School		$1,109,714	$285,646	$209,304	$697,680	$418,608	$418,608	$0	$0	$279,072	$0	$34,884,001	$20,930,401
4101-68	NEW HAVEN	Southbury	Main Storehouse	Southbury Training School		$595,849	$285,646	$132,224	$440,748	$264,449	$264,449	$0	$0	$176,299	$0	$22,037,378	$13,222,427
	FAIRFIELD	Westport				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$65,178,082	$39,106,849
	FAIRFIELD	Norwalk				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$0	$65,178,082	$39,106,849
	LITCHFIELD	Kent				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$65,178,082	$39,106,849
	LITCHFIELD	Kent				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$65,178,082	$39,106,849
	LITCHFIELD	Kent				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$65,178,082	$39,106,849
	LITCHFIELD	Kent				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$521,425	$0	$65,178,082	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$65,178,082	$39,106,849
	HARTFORD	Enfield				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$65,178,082	$39,106,849
	HARTFORD	Enfield				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$65,178,082	$39,106,849
2201-126	HARTFORD	Windsor Locks	Storage Csd			$61,532	$285,646	$52,077	$121,513	$104,154	$104,154	$121,513	$0	$69,436	$0	$8,679,466	$5,207,679
2201-99	HARTFORD	Windsor Locks				$35,888	$285,646	$48,230	$112,537	$96,460	$96,460	$112,537	$0	$64,307	$0	$8,038,345	$4,823,007
2201-120	HARTFORD	Windsor Locks				$34,179	$285,646	$47,974	$111,939	$95,948	$95,948	$111,939	$0	$63,965	$0	$7,995,636	$4,797,381
2201-100	HARTFORD	Windsor Locks				$2,032	$34,024	$5,408	$12,620	$10,817	$10,817	$12,620	$0	$7,211	$0	$901,400	$540,840
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$65,178,082	$39,106,849
4101-22	NEW HAVEN	Southbury	Cottage 11	Southbury Training School		$302,094	$285,646	$88,161	$293,870	$176,322	$176,322	$205,709	$0	$117,548	$0	$14,693,495	$8,816,097
4101-104	NEW HAVEN	Southbury	Old Poultry Plant	Southbury Training School		$387,550	$285,646	$100,979	$336,598	$201,959	$201,959	$235,618	$0	$134,639	$0	$16,829,892	$10,097,935
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$65,178,082	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$65,178,082	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$65,178,082	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$65,178,082	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$65,178,082	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$0	$65,178,082	$39,106,849
7301-7155	TOLLAND	Mansfield	0171 WMS Health Srvs / Infirmary	University of Connecticut - Storrs Campus	Education	$3,616,176	$729,247	$651,813	$1,520,898	$0	$1,303,627	$0	$4,345,422	$869,084	$0	$108,635,558	$65,181,335
7301-1140	TOLLAND	Mansfield	0415 Pharmacy / Biology	University of Connecticut - Storrs Campus	Education	$94,559,825	$10,189,204	$15,712,354	$36,662,160	$0	$31,424,709	$0	$104,749,029	$20,949,806	$0	$2,618,725,730	$1,571,235,438

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
7301-7147	TOLLAND	Mansfield	0141 Heating & Power Plant	University of Connecticut - Storrs Campus	Maintenance/Repair Shop	$37,472,252	$155,199	$5,644,118	$13,169,608	$0	$11,288,235	$0	$37,627,451	$7,525,490	$0	$940,686,280	$564,411,768
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$2,607,123	$521,425	$0	$65,178,082	$39,106,849
	MIDDLESEX	Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$2,607,123	$521,425	$0	$65,178,082	$39,106,849
	MIDDLESEX	Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$2,607,123	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	East Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$2,607,123	$521,425	$0	$65,178,082	$39,106,849
	NEW HAVEN	East Haven				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$2,607,123	$521,425	$0	$65,178,082	$39,106,849
5000-4193	WINDHAM	Thompson	Sand/Salt Storage Shed	Thompson Salt Storage	Shed	$268,575	$285,646	$83,133	$193,977	$0	$166,266	$0	$554,221	$110,844	$0	$13,855,530	$8,313,318
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$2,607,123	$521,425	$0	$65,178,082	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$2,607,123	$521,425	$0	$65,178,082	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$2,607,123	$521,425	$0	$65,178,082	$39,106,849
7804-37	NEW HAVEN	Hamden	North Campus Residence Complex - Townhouse B	Southern Connecticut State University	Building No. 34, Residence	$852,302	$4,975	$128,591	$428,638	$0	$257,183	$0	$0	$171,455	$857,277	$21,431,914	$12,859,149
5000-4198	HARTFORD	Simsbury	Sand/Salt Shed	Department of Transportation		$338,784	$285,646	$93,665	$218,551	$0	$187,329	$0	$0	$124,886	$624,430	$15,610,752	$9,366,451
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$2,607,123	$65,178,082	$39,106,849
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$2,607,123	$65,178,082	$39,106,849
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$2,607,123	$65,178,082	$39,106,849
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$2,607,123	$65,178,082	$39,106,849
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$2,607,123	$65,178,082	$39,106,849
7301-1117	TOLLAND	Mansfield	0377 Soccer Press Box	University of Connecticut - Storrs Campus		$71,360	$137,679	$31,356	$73,164	$0	$62,712	$0	$0	$41,808	$209,039	$5,225,967	$3,135,580
7301-7190	TOLLAND	Mansfield	0445 Novello Hall, Hilltop Apt. 12	University of Connecticut - Storrs Campus	Residence	$3,183,767	$285,646	$520,412	$1,214,294	$0	$1,040,824	$0	$0	$693,883	$3,469,413	$86,735,320	$52,041,192
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$2,607,123	$65,178,082	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$2,607,123	$65,178,082	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$2,607,123	$65,178,082	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$2,607,123	$65,178,082	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$2,607,123	$65,178,082	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$2,607,123	$65,178,082	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$2,607,123	$65,178,082	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$2,607,123	$65,178,082	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$2,607,123	$65,178,082	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$521,425	$2,607,123	$65,178,082	$39,106,849
7001-4	FAIRFIELD	Danbury	Main Campus Building	Henry Abbott Technical High School	Education	$19,487,057	$2,332,833	$3,272,984	$10,909,945	$0	$6,545,967	$0	$0	$0	$0	$10,909,945	$327,298,352
(none)	FAIRFIELD	Danbury		Henry Abbott Technical High School	Storage	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
7001-81	NEW HAVEN	Hamden	Service Garage	Eli Whitney Technical High School	Maintenance/Repair Shop	$48,173	$285,646	$50,073	$166,910	$0	$100,146	$0	$0	$0	$0	$166,910	$5,007,288
1326-555	NEW LONDON	Norwich	Employees	Uncas-on-Thames Hospital	Building No. 2	$2,073,828	$285,646	$353,921	$1,179,737	$0	$707,842	$0	$0	$0	$0	$1,179,737	$35,392,118
7802-7103	HARTFORD	New Britain	Arute Stadium Press Box	Central Connecticut State University	Building No. 21, Sports/Gymnasium	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
(none)	WINDHAM	Windham		Eastern Connecticut State University	Walkway between Building Nos. 36, 39 & 40	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
(none)	NEW LONDON	Norwich	Thames Valley Campus	Three Rivers Community College	Garage	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
7701-34	NEW LONDON	Norwich	Thames Valley Campus	Three Rivers Community College	Education	$15,776,717	$3,929,230	$2,955,892	$9,852,974	$0	$5,911,784	$0	$0	$0	$0	$9,852,974	$295,589,212
7804-26	NEW HAVEN	New Haven	Morrill Hall	Southern Connecticut State University	Building No. 7, Education	$10,844,497	$1,403,356	$1,837,178	$6,123,926	$0	$3,674,356	$0	$0	$0	$0	$6,123,926	$183,717,789
7401-1	HARTFORD	New Britain	Charter Oak State College	Charter Oak State College	Building No. 28, Education	$2,326,425	$1,670,941	$599,605	$1,399,078	$0	$1,199,210	$0	$0	$0	$0	$1,998,683	$59,960,493
7802-37	HARTFORD	New Britain	South Pump House	Central Connecticut State University	Building No. 44, Facilities Management	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
7802-16	HARTFORD	New Britain	Frank J. DiLoreto Hall	Central Connecticut State University	Building No. 15, Education	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
7802-531	HARTFORD	New Britain	F. Don James Hall	Central Connecticut State University	Building No. 36, Residence	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
7802-11	HARTFORD	New Britain	Clarence Carroll Hall	Central Connecticut State University	Building No. 4, Residence	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
7802-29	HARTFORD	New Britain	Public Safety Building	Central Connecticut State University	Building No. 29, Police Department	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
7802-13	HARTFORD	New Britain	Maria Sanford Hall	Central Connecticut State University	Building No. 12, Education	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
1312-10	HARTFORD	Rocky Hill	Security	Veteran's Home & Hospital	Building No. 10	$127,774	$49,238	$26,552	$61,954	$0	$53,104	$0	$0	$0	$0	$88,506	$2,655,180
1312-11	HARTFORD	Rocky Hill	Residence	Veteran's Home & Hospital	Building No. 11	$271,974	$285,646	$83,643	$195,167	$0	$167,286	$0	$0	$0	$0	$278,810	$8,364,303
1312-12	HARTFORD	Rocky Hill	Residence	Veteran's Home & Hospital	Building No. 12	$166,739	$285,646	$67,858	$158,335	$0	$135,715	$0	$0	$0	$0	$226,192	$6,785,773
(none)	HARTFORD	Rocky Hill	Garage	Veteran's Home & Hospital	Building No. 12 Garage	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
1312-14	HARTFORD	Rocky Hill	Residence (Duplex)	Veteran's Home & Hospital	Building No. 14	$145,106	$285,646	$64,613	$150,763	$0	$129,226	$0	$0	$0	$0	$215,376	$6,461,279
1312-16	HARTFORD	Rocky Hill	Residence (Duplex)	Veteran's Home & Hospital	Building No. 16	$145,106	$285,646	$64,613	$150,763	$0	$129,226	$0	$0	$0	$0	$215,376	$6,461,279
1312-1	HARTFORD	Rocky Hill	Administration	Veteran's Home & Hospital	Building No. 1	$1,300,001	$98,684	$209,803	$489,540	$0	$419,606	$0	$0	$0	$0	$699,343	$20,980,284
(none)	HARTFORD	Rocky Hill	Storage (by stack)	Veteran's Home & Hospital	Building No. 37	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
1312-6	HARTFORD	Rocky Hill	Power Plant	Veteran's Home & Hospital	Building No. 6	$3,041,045	$75,321	$467,455	$1,090,728	$0	$934,910	$0	$0	$0	$0	$1,558,183	$46,745,497
1312-4	HARTFORD	Rocky Hill	East Domicile	Veteran's Home & Hospital	Building No. 4	$3,216,345	$52,736	$490,362	$1,144,178	$0	$980,724	$0	$0	$0	$0	$1,634,540	$49,036,208
1312-33	HARTFORD	Rocky Hill	Cemetary Vault	Veteran's Home & Hospital	Building No. 58	$11,844	$285,646	$44,623	$104,121	$0	$89,247	$0	$0	$0	$0	$148,745	$4,462,346
1312-23	HARTFORD	Rocky Hill	Garage	Veteran's Home & Hospital	Building No. 48	$67,807	$285,646	$53,018	$123,709	$0	$106,036	$0	$0	$0	$0	$176,727	$5,301,804
7805-5366	WINDHAM	Windham	Health Services	Eastern Connecticut	Building No. 18	$675,546	$34,004	$106,432	$248,342	$0	$212,865	$0	$0	$0	$0	$354,775	$10,643,249

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
				State University													
7805-10	WINDHAM	Windham	Crandall Hall	Eastern Connecticut State University	Building No. 39	$3,879,566	$32,717	$586,842	$1,369,299	$0	$1,173,685	$0	$0	$0	$0	$1,956,142	$58,684,245
7701-8	MIDDLESEX	Middletown	Maintenance Building	Middlesex Community College		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
7701-9	MIDDLESEX	Middletown	Snow Hall	Middlesex Community College		$3,096,084	$430,522	$528,991	$1,763,303	$0	$1,057,982	$0	$0	$0	$0	$1,763,303	$52,899,088
7701-10	MIDDLESEX	Middletown	Wheaton Hall	Middlesex Community College		$2,902,799	$749,264	$547,809	$1,826,032	$0	$1,095,619	$0	$0	$0	$0	$1,826,032	$54,780,947
(none)	NEW HAVEN	Cheshire		DPS Cheshire	Canine Building	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
(none)	NEW HAVEN	Cheshire		DPS Cheshire	Maintenance Building	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
(none)	NEW HAVEN	Cheshire		DPS Cheshire	Administration Building	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
(none)	NEW HAVEN	Cheshire		DPS Cheshire	Garage	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
7701-11	MIDDLESEX	Middletown	Founders Hall	Middlesex Community College		$2,798,422	$629,523	$514,192	$1,713,973	$0	$1,028,384	$0	$0	$0	$0	$1,713,973	$51,419,181
7805-16	WINDHAM	Windham	Low Rise B	Eastern Connecticut State University	Building No. 17	$1,740,160	$19,352	$263,927	$615,829	$0	$527,854	$0	$0	$0	$0	$879,756	$26,392,686
1326-26	HARTFORD	Hartford		State Office Building		$57,416,174	$1,667,359	$8,862,530	$20,679,237	$0	$17,725,060	$0	$0	$0	$0	$29,541,767	$886,253,000
9001-8	HARTFORD	Hartford		Hartford Juvenile Matters Courthouse	Courthouse	$39,266,593	$612,987	$5,981,937	$13,957,853	$0	$11,963,874	$0	$0	$0	$0	$19,939,790	$598,193,701
9001-9	HARTFORD	Hartford		Appellate Court		$2,539,820	$892,807	$514,894	$1,201,419	$0	$1,029,788	$0	$0	$0	$0	$1,716,313	$51,489,400
2201-50	HARTFORD	Hartford		Hartford Armory		$27,957,413	$281,608	$4,235,853	$9,883,657	$0	$8,471,706	$0	$0	$0	$0	$14,119,511	$423,585,320
1001-7101	HARTFORD	Hartford		Legislative Office Building & Parking Garage		$62,240,154	$7,946,035	$10,527,928	$24,565,166	$0	$21,055,857	$0	$0	$0	$0	$35,093,095	$1,052,792,837
2201-51	HARTFORD	Hartford		OMS Shop	Maintenance/Repair Shop	$777,469	$285,646	$159,467	$372,090	$0	$318,935	$0	$0	$0	$0	$531,558	$15,946,730
9001-17104	HARTFORD	Hartford		State of Connecticut Supreme Court & State Library	Courthouse	$115,916,917	$957,707	$17,531,194	$40,906,118	$0	$35,062,387	$0	$0	$0	$0	$58,437,312	$1,753,119,363
(none)	HARTFORD	Hartford		Governor's Residence		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	HARTFORD	Hartford		Adriaen's Landing		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
4400-369	HARTFORD	Wethersfield	Pump House	Cedarcrest Hospital		$637,244	$285,646	$138,434	$323,012	$0	$276,867	$0	$0	$0	$0	$461,445	$13,843,355
5000-375	HARTFORD	Wethersfield	Salt Shed	Department of Transportation		$57,619	$285,646	$51,490	$120,143	$0	$102,979	$0	$0	$0	$0	$171,632	$5,148,970
5000-122	HARTFORD	Wethersfield	Storage Building	Department of Transportation		$86,132	$285,646	$55,767	$130,122	$0	$111,533	$0	$0	$0	$0	$185,889	$5,576,670
5000-116	HARTFORD	Wethersfield	Maintenance and Repair Garage	Department of Transportation		$2,395,185	$846,922	$486,316	$1,134,737	$0	$972,632	$0	$0	$0	$0	$1,621,053	$48,631,594
(none)	HARTFORD	Wethersfield		State Institute for the Blind		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
(none)	HARTFORD	Wethersfield		State Institute for the Blind		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
1326-27	HARTFORD	Wethersfield	Department of Labor	Headquarters		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
5000-587	HARTFORD	Wethersfield	Bus Shelter	Department of Transportation		$4,649	$285,646	$43,544	$101,603	$0	$87,089	$0	$0	$0	$0	$145,148	$4,354,426
5000-598	HARTFORD	Wethersfield	Bus Shelter	Department of Transportation		$4,649	$285,646	$43,544	$101,603	$0	$87,089	$0	$0	$0	$0	$145,148	$4,354,426
1326-491	HARTFORD	Wethersfield	38 Wolcott Hill Rd	Department of Transportation		$5,197,077	$15,890	$781,945	$1,824,538	$0	$1,563,890	$0	$0	$0	$0	$2,606,483	$78,194,502
1326-490	HARTFORD	Wethersfield	24 Wolcott Hill Road	Department of Transportation		$14,588,690	$285,646	$2,231,150	$5,206,018	$0	$4,462,301	$0	$0	$0	$0	$7,437,168	$223,115,042
1320-8	HARTFORD	Wethersfield	State Surplus Warehouse	Office Building		$756,428	$223,609	$147,006	$343,013	$0	$294,011	$0	$0	$0	$0	$490,019	$14,700,555
1320-4	HARTFORD	Wethersfield	State Surplus Car Pool Garage	Office Building		$504,287	$163,193	$100,122	$233,618	$0	$200,244	$0	$0	$0	$0	$333,740	$10,012,198
2101-16	HARTFORD	Wethersfield	Shack (pump house)	Office Building		$14,059	$285,646	$44,956	$104,897	$0	$89,912	$0	$0	$0	$0	$149,853	$4,495,583
2101-15	HARTFORD	Wethersfield	Wethersfield Inspection Lane	Office Building		$250,288	$285,646	$80,390	$187,577	$0	$160,780	$0	$0	$0	$0	$267,967	$8,039,013
2101-14	HARTFORD	Wethersfield	Wethersfield Main Branch	Office Building		$9,037,697	$5,743,774	$2,217,221	$5,173,515	$0	$4,434,441	$0	$0	$0	$0	$7,390,735	$221,722,058
5000-174	HARTFORD	Rocky Hill	Sign Shop	Department of Transportation		$889,224	$230,170	$167,909	$391,788	$0	$335,818	$0	$0	$0	$0	$559,697	$16,790,915
5000-186	HARTFORD	East Hartford	Paint Storage Building	Department of		$827,419	$285,646	$166,960	$389,573	$0	$333,920	$0	$0	$0	$0	$556,533	$16,695,983

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
				Transportation													
5000-112	HARTFORD	East Hartford	Maintenance Garage	Department of Transportation		$709,882	$196,929	$136,022	$317,384	$0	$272,043	$0	$0	$0	$0	$453,405	$13,602,156
7001-19	HARTFORD	Manchester		Howell Cheney Technical High School		$77,452,682	$3,009,907	$12,069,388	$28,161,906	$0	$24,138,777	$0	$0	$0	$0	$40,231,294	$1,206,938,831
7701-7101	HARTFORD	Manchester	Learning Resource Center	Manchester Community College		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	LITCHFIELD	Litchfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	LITCHFIELD	Litchfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	LITCHFIELD	Litchfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW HAVEN	Cheshire				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW HAVEN	Cheshire				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
5000-703	MIDDLESEX	Westbrook	Storage Shed (mini)			$1,040	$285,646	$43,003	$143,343	$0	$86,006	$0	$0	$0	$0	$143,343	$4,300,291
5000-7251	MIDDLESEX	Westbrook	Salt/Storage Shed			$504,305	$285,646	$118,493	$394,976	$0	$236,985	$0	$0	$0	$0	$394,976	$11,849,267
5000-72	MIDDLESEX	Westbrook	Maintenance Garage			$514,862	$46,799	$84,249	$280,830	$0	$168,498	$0	$0	$0	$0	$280,830	$8,424,912
5000-703	MIDDLESEX	Westbrook	Storage Shed (mini)			$1,040	$285,646	$43,003	$143,343	$0	$86,006	$0	$0	$0	$0	$143,343	$4,300,291
2101-10	MIDDLESEX	Old Saybrook	Old Saybrook Branch			$950,859	$223,779	$176,196	$587,319	$0	$352,391	$0	$0	$0	$0	$587,319	$17,619,565
5000-676	MIDDLESEX	Old Saybrook	Bus Shelter			$5,013	$285,646	$43,599	$145,330	$0	$87,198	$0	$0	$0	$0	$145,330	$4,359,893
3100-2071	MIDDLESEX	Essex	Depot-Essex			$10,575	$285,646	$44,433	$148,110	$0	$88,866	$0	$0	$0	$0	$148,110	$4,443,313
3100-2072	MIDDLESEX	Deep River	Depot-Deep River			$11,046	$285,646	$44,504	$148,346	$0	$89,008	$0	$0	$0	$0	$148,346	$4,450,381
5000-295	MIDDLESEX	Chester	Ferry Office			$3,289	$30,442	$5,060	$16,865	$0	$10,119	$0	$0	$0	$0	$16,865	$505,961
3100-128	MIDDLESEX	Killingworth	Dwelling			$63,745	$285,646	$52,409	$174,695	$0	$104,817	$0	$0	$0	$0	$174,695	$5,240,860
3100-126	MIDDLESEX	Killingworth	Dwelling			$66,398	$2,834	$10,385	$34,616	$0	$20,770	$0	$0	$0	$0	$34,616	$1,038,485
3100-127	MIDDLESEX	Killingworth	Dwelling			$61,972	$285,646	$52,143	$173,809	$0	$104,286	$0	$0	$0	$0	$173,809	$5,214,277
3100-133	MIDDLESEX	Killingworth	Mill Works			$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	MIDDLESEX	Killingworth				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	MIDDLESEX	Killingworth				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	MIDDLESEX	Killingworth				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	MIDDLESEX	Killingworth				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	MIDDLESEX	Killingworth				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	MIDDLESEX	Killingworth				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	MIDDLESEX	Killingworth				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	MIDDLESEX	Killingworth				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
3100-110	MIDDLESEX	East Haddam	Geer House Gar			$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
4400-84	MIDDLESEX	Middletown	Farm Wagon Shed			$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
9001-14	MIDDLESEX	Middletown	GA and J9 Courthouse			$2,321,477	$2,753,530	$761,251	$2,537,504	$0	$1,522,502	$0	$0	$0	$0	$2,537,504	$76,125,107
4400-116	MIDDLESEX	Middletown	Root Cellar			$51,278	$285,646	$50,539	$168,462	$0	$101,077	$0	$0	$0	$0	$168,462	$5,053,865
3100-1782	MIDDLESEX	Killingworth	Woodshop			$6,016	$285,646	$43,749	$145,831	$0	$87,499	$0	$0	$0	$0	$145,831	$4,374,932
4125-114125	MIDDLESEX	Cromwell	Shunpike Rd Group Home			$412,412	$61,759	$71,126	$237,085	$0	$142,251	$0	$0	$0	$0	$237,085	$7,112,563
3100-96	MIDDLESEX	Portland	Umbrella Shed			$33,185	$285,646	$47,825	$159,416	$0	$95,649	$0	$0	$0	$0	$159,416	$4,782,469
3100-91	MIDDLESEX	Portland	Lumber Shed			$23,697	$285,646	$46,401	$154,671	$0	$92,803	$0	$0	$0	$0	$154,671	$4,640,143
2201-66	HARTFORD	Southington	Readness Center			$5,073,423	$98,713	$775,820	$1,810,248	$0	$1,551,641	$0	$0	$0	$0	$2,586,068	$77,582,037
2000-486	HARTFORD	Bloomfield	Talcott Radio Tower			$296,259	$364,327	$99,088	$231,205	$0	$198,176	$0	$0	$0	$0	$330,293	$9,908,786
3100-623	HARTFORD	Simsbury	Rangers House			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
3100-628	HARTFORD	Simsbury	Garage			$18,443	$285,646	$45,613	$106,431	$0	$91,227	$0	$0	$0	$0	$152,045	$4,561,338
7301-92	TOLLAND	Mansfield	0168 Rogers Hall (A,B) Nw Qd 6	University of Connecticut - Storrs Campus	Residence	$5,237,589	$22,837	$789,064	$1,841,149	$0	$1,578,128	$0	$0	$0	$0	$2,630,213	$78,906,392
7301-90	TOLLAND	Mansfield	0166 Batterson Hall (A-D) Nw Qd 4	University of Connecticut - Storrs Campus	Residence	$10,592,254	$43,231	$1,595,323	$3,722,420	$0	$3,190,645	$0	$0	$0	$0	$5,317,742	$159,532,271
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
7301-52	TOLLAND	Mansfield	0127 Whitney Hall & Cafeteria	University of Connecticut - Storrs Campus	Residence	$3,477,391	$225,666	$555,459	$1,296,070	$0	$1,110,917	$0	$0	$0	$0	$1,851,528	$55,545,851
7301-63	TOLLAND	Mansfield	0139 Sprague Hall	University of Connecticut - Storrs Campus	Residence	$3,739,711	$57,869	$569,637	$1,329,153	$0	$1,139,274	$0	$0	$0	$0	$1,898,790	$56,963,703
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus	Barn	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
7301-291	TOLLAND	Mansfield	1047 Northwood Apartments, Bldg 12	University of Connecticut - Storrs Campus		$622,764	$285,646	$136,261	$317,943	$0	$272,523	$0	$0	$0	$0	$454,205	$13,626,145
7301-290	TOLLAND	Mansfield	1046 Northwood Apartments, Bldg 11	University of Connecticut - Storrs Campus		$631,758	$285,646	$137,611	$321,092	$0	$275,221	$0	$0	$0	$0	$458,702	$13,761,066
7301-280	TOLLAND	Mansfield	1036 Northwood Apartments, Bldg 1	University of Connecticut - Storrs Campus		$664,843	$15,922	$102,115	$238,267	$0	$204,229	$0	$0	$0	$0	$340,382	$10,211,462
2000-41	TOLLAND	Tolland	CSP operations	Troop C	Offices	$4,684,042	$285,646	$745,453	$1,739,391	$0	$1,490,907	$0	$0	$0	$0	$2,484,844	$74,545,329
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW LONDON	Groton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW LONDON	New London				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW LONDON	Montville				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW LONDON	Montville				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW LONDON	Montville				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	NEW LONDON	Norwich				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	TOLLAND	Mansfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
7301-442	TOLLAND	Mansfield	2108 Depot - Chaplin Cottage	University of Connecticut - Depot		$1,560,353	$10,496,895	$1,808,587	$4,220,037	$0	$3,617,174	$0	$0	$0	$0	$6,028,624	$180,858,717
7301-444	TOLLAND	Mansfield	2110 Depot - Colchester Cottage	University of Connecticut - Depot		$1,013,478	$20,048	$155,029	$361,734	$0	$310,058	$0	$0	$0	$0	$516,763	$15,502,889
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
7301-436	TOLLAND	Mansfield	2102 Depot - Baker Hall	University of Connecticut - Depot		$1,104,719	$81,928	$177,997	$415,326	$0	$355,994	$0	$0	$0	$0	$593,324	$17,799,707
7301-472	TOLLAND	Mansfield	2140 Depot - Matthews Hall	University of Connecticut - Depot		$595,488	$285,646	$132,170	$308,397	$0	$264,340	$0	$0	$0	$0	$440,567	$13,217,018
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
7301-468	TOLLAND	Mansfield	2136 Depot - Main Kitchen	University of Connecticut - Depot		$801,275	$285,646	$163,038	$380,423	$0	$326,076	$0	$0	$0	$0	$543,461	$16,303,825
7301-452	TOLLAND	Mansfield	2120 Depot - Goddard Hall	University of Connecticut - Depot		$321,462	$285,646	$91,066	$212,488	$0	$182,132	$0	$0	$0	$0	$303,554	$9,106,617
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
7301-492	TOLLAND	Mansfield	2171 Depot - Wallace Hall	University of Connecticut - Depot		$758,599	$285,646	$156,637	$365,486	$0	$313,274	$0	$0	$0	$0	$522,123	$15,663,677
7301-449	TOLLAND	Mansfield	2115 Depot - Employee Cafeteria	University of Connecticut - Depot		$677,996	$285,646	$144,546	$337,275	$0	$289,092	$0	$0	$0	$0	$481,821	$14,454,625
7301-440	TOLLAND	Mansfield	2106 Depot - Brown Building	University of Connecticut - Depot		$5,936,458	$503,920	$966,057	$2,254,132	$0	$1,932,114	$0	$0	$0	$0	$3,220,189	$96,605,676
7301-465	TOLLAND	Mansfield	2133 Depot - LaMoure Hall	University of Connecticut - Depot		$578,435	$285,646	$129,612	$302,428	$0	$259,224	$0	$0	$0	$0	$432,040	$12,961,212
7301-493	TOLLAND	Mansfield	2172 Depot - Walters Cottage	University of Connecticut - Depot		$928,581	$9,182	$140,665	$328,217	$0	$281,329	$0	$0	$0	$0	$468,882	$14,066,452
7301-480	TOLLAND	Mansfield	2149 Depot - Powerhouse	University of Connecticut - Depot	Old Powerhouse	$1,795,720	$285,646	$312,205	$728,478	$0	$624,410	$0	$0	$0	$0	$1,040,683	$31,220,489
7301-495	TOLLAND	Mansfield	2174 Depot - Willimantic Cottage	University of Connecticut - Depot		$378,273	$6,102	$57,656	$134,531	$0	$115,312	$0	$0	$0	$0	$192,187	$5,765,619
7301-439	TOLLAND	Mansfield	2105 Depot - Bolton Cottage	University of Connecticut - Depot		$330,983	$285,646	$92,494	$215,820	$0	$184,989	$0	$0	$0	$0	$308,315	$9,249,439

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
7301-7127	TOLLAND	Mansfield	2170 Depot - Vernon Cottage	University of Connecticut - Depot	Office	$827,862	$31,018	$128,832	$300,608	$0	$257,664	$0	$0	$0	$0	$429,440	$12,883,204
7301-498	TOLLAND	Mansfield	2177 Depot - Windham Cottage	University of Connecticut - Depot		$330,983	$9,703	$51,103	$119,240	$0	$102,206	$0	$0	$0	$0	$170,343	$5,110,292
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Depot		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	TOLLAND	Mansfield	Barn - Quonset Hut	University of Connecticut - Depot	Barn	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	TOLLAND	Mansfield	Barn - Quonset Hut	University of Connecticut - Depot	Barn	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
4122-164123	TOLLAND	Columbia	80 Route 66	DDS - 80 Route 66	Residence	$284,474	$285,646	$85,518	$199,542	$0	$171,036	$0	$0	$0	$0	$285,060	$8,551,800
3100-176	WINDHAM	Eastford	Gatehouse	Nassahegon State Forest		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
3100-395	WINDHAM	Eastford	Pole Garage - Workshop	Nassahegon State Forest		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
3100-2690	WINDHAM	Eastford	Manager's Residence	Nassahegon State Forest		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
3100-392	WINDHAM	Eastford	Machine Shop	Nassahegon State Forest		$2,321,477	$1,056	$348,380	$812,887	$0	$696,760	$0	$0	$0	$0	$1,161,267	$34,837,997
3100-391	WINDHAM	Eastford	Warehouse Office	Nassahegon State Forest		$2,321,477	$2,700	$348,627	$813,462	$0	$697,253	$0	$0	$0	$0	$1,162,089	$34,862,657
3100-393	WINDHAM	Eastford	Lumber Shed #3	Nassahegon State Forest		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
3100-394	WINDHAM	Eastford	Pump House	Nassahegon State Forest		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
3100-396	WINDHAM	Eastford	Oil Shed	Nassahegon State Forest		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
3100-398	WINDHAM	Eastford	Woodshed	Nassahegon State Forest		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW LONDON	Franklin				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW LONDON	Franklin				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW LONDON	Franklin				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW LONDON	Franklin				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW LONDON	Franklin				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW LONDON	Franklin				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
5000-28	NEW LONDON	Lisbon	Boiler House	Facility Not Listed	Other	$41,107	$285,646	$49,013	$163,377	$0	$98,026	$0	$0	$0	$0	$163,377	$4,901,298

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
7301-1118	TOLLAND	Mansfield	0379 Daily Campus Building	University of Connecticut - Storrs Campus		$486,077	$24,311	$76,558	$178,636	$0	$153,116	$0	$0	$0	$0	$255,194	$7,655,821
7301-1131	TOLLAND	Mansfield	0399 Shuttlebus Shelter 4-W Lot	University of Connecticut - Storrs Campus		$28,894	$1,412	$4,546	$10,607	$0	$9,092	$0	$0	$0	$0	$15,153	$454,590
7301-139	TOLLAND	Mansfield	0222 White Building (Anim Industries)	University of Connecticut - Storrs Campus	Laboratory	$7,345,536	$1,601,048	$1,341,988	$3,131,304	$0	$2,683,975	$0	$0	$0	$0	$4,473,292	$134,198,751
7301-144	TOLLAND	Mansfield	0227 House 47, 14 Eastwood Rd	University of Connecticut - Storrs Campus		$119,048	$285,646	$60,704	$141,643	$0	$121,408	$0	$0	$0	$0	$202,347	$6,070,418
7301-172	TOLLAND	Mansfield	0261 Shippee Hall & Dining Facility	University of Connecticut - Storrs Campus	Residence	$13,266,022	$97,015	$2,004,455	$4,677,063	$0	$4,008,911	$0	$0	$0	$0	$6,681,518	$200,445,543
7301-7781	TOLLAND	Mansfield	0388 Sewage Sta Control Bldg	University of Connecticut - Storrs Campus	Maintenance/Repair Shop	$10,140	$118,617	$19,314	$45,065	$0	$38,627	$0	$0	$0	$0	$64,378	$1,931,352
7301-178	TOLLAND	Mansfield	0272 Pit Greenhouse	University of Connecticut - Storrs Campus	Other	$14,609	$285,646	$45,038	$105,089	$0	$90,076	$0	$0	$0	$0	$150,127	$4,503,822
7301-229	TOLLAND	Mansfield	0411 Nayden Physical Therapy Clinic	University of Connecticut - Storrs Campus	Office	$325,605	$107,191	$64,919	$151,479	$0	$129,839	$0	$0	$0	$0	$216,398	$6,491,938
	FAIRFIELD	Newtown				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	FAIRFIELD	Danbury				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	FAIRFIELD	New Canaan				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	FAIRFIELD	New Canaan				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	FAIRFIELD	Stamford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	WINDHAM	Ashford				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
5000-701	TOLLAND	Bolton	Salt Storage	Bolton DOT Garage and Storage	Salt Storage	$419,872	$285,646	$105,828	$246,931	$0	$211,656	$0	$0	$0	$0	$352,759	$10,582,776
5000-396	TOLLAND	Bolton	Salt Shed	Bolton DOT Garage and Storage	Salt Shed	$23,384	$285,646	$46,355	$108,161	$0	$92,709	$0	$0	$0	$0	$154,515	$4,635,452
3100-554	TOLLAND	Hebron	Gay City Supervisor Residence	Gay City State Park	Residence	$70,879	$285,646	$53,479	$124,784	$0	$106,957	$0	$0	$0	$0	$178,262	$5,347,871
	FAIRFIELD	Shelton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	FAIRFIELD	Shelton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	LITCHFIELD	Kent				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	LITCHFIELD	Cornwall				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW LONDON	Griswold		Griswold Research Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW LONDON	Griswold	Proposed Butler Building	Griswold Research Center	Lab	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
4125-434126	NEW LONDON	Griswold	Fogarty Rd.	Fogarty Rd.	Residential	$306,095	$3,347	$46,416	$154,721	$0	$92,833	$0	$0	$0	$0	$154,721	$4,641,633

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
5000-778	NEW LONDON	North Stonington	Storage Shed	DOT North Stonington Rest Center	Storage Shed	$6,412	$285,646	$43,809	$146,029	$0	$87,618	$0	$0	$0	$0	$146,029	$4,380,875
	NEW LONDON	North Stonington	Storage Shed	DOT North Stonington Rest Center	Storage Shed	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	WINDHAM	Killingly				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	WINDHAM	Killingly				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Enfield		Enfield Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	East Granby		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks		Department of Transportation		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
2201-88	HARTFORD	Windsor Locks	Oms Shop			$513,242	$285,646	$119,833	$279,611	$239,666	$239,666	$0	$0	$0	$0	$399,444	$11,983,324
2201-89	HARTFORD	Windsor Locks	Mob Stock			$240,882	$285,646	$78,979	$184,285	$157,958	$157,958	$0	$0	$0	$0	$263,264	$7,897,917
2201-103	HARTFORD	Windsor Locks				$379,754	$285,646	$99,810	$232,890	$199,620	$199,620	$0	$0	$0	$0	$332,700	$9,981,001
2201-85	HARTFORD	Windsor Locks	712th Armory			$441,818	$285,646	$109,120	$254,612	$218,239	$218,239	$0	$0	$0	$0	$363,732	$10,911,963
2201-116	HARTFORD	Windsor Locks				$168,039	$285,646	$68,053	$158,790	$136,106	$136,106	$0	$0	$0	$0	$226,843	$6,805,275
2201-113	HARTFORD	Windsor Locks				$152,594	$285,646	$65,736	$153,384	$131,472	$131,472	$0	$0	$0	$0	$219,120	$6,573,609
	HARTFORD	Windsor				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
4101-42	NEW HAVEN	Southbury	Cottage 33	Southbury Training School		$498,811	$285,646	$117,669	$392,229	$235,337	$235,337	$0	$0	$0	$0	$392,229	$11,766,860
4101-43	NEW HAVEN	Southbury	Cottage 34	Southbury Training School		$799,848	$285,646	$162,824	$542,747	$325,648	$325,648	$0	$0	$0	$0	$542,747	$16,282,409
4101-31	NEW HAVEN	Southbury	Cottage 22	Southbury Training School		$302,094	$285,646	$88,161	$293,870	$176,322	$176,322	$0	$0	$0	$0	$293,870	$8,816,097
4101-32	NEW HAVEN	Southbury	Cottage 23	Southbury Training School		$265,421	$285,646	$82,660	$275,534	$165,320	$165,320	$0	$0	$0	$0	$275,534	$8,266,009

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
4101-33	NEW HAVEN	Southbury	Cottage 24	Southbury Training School		$327,485	$285,646	$91,970	$306,566	$183,939	$183,939	$0	$0	$0	$0	$306,566	$9,196,968
4101-34	NEW HAVEN	Southbury	Cottage 25	Southbury Training School		$265,421	$285,646	$82,660	$275,534	$165,320	$165,320	$0	$0	$0	$0	$275,534	$8,266,009
4101-103	NEW HAVEN	Southbury	Poultry House	Southbury Training School		$115,336	$285,646	$60,147	$200,491	$120,295	$120,295	$0	$0	$0	$0	$200,491	$6,014,734
4101-130	NEW HAVEN	Southbury	Staff House 6 & 8	Southbury Training School		$170,458	$285,646	$68,416	$228,052	$136,831	$136,831	$0	$0	$0	$0	$228,052	$6,841,569
	NEW HAVEN	Southbury	Radio Tower Transmitter	Southbury Training School		$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
7701-7103	NEW HAVEN	Waterbury	Ekstrom Parking Garage			$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	TOLLAND	Somers		Osborn Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW HAVEN	Oxford	Executive Flight	Waterbury-Oxford Airport		$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW HAVEN	Oxford	T-Hanger	Waterbury-Oxford Airport		$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW HAVEN	Oxford	T-Hanger	Waterbury-Oxford Airport		$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	NEW HAVEN	Oxford	T-Hanger	Waterbury-Oxford Airport		$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Suffield				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	East Granby				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Enfield				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
3100-578	TOLLAND	Stafford	Civilian Conservation Corp Museum	Shenipsit State Forest	Museum	$106,909	$285,646	$58,883	$137,394	$117,767	$117,767	$0	$0	$0	$0	$196,278	$5,888,327
3100-576	TOLLAND	Stafford	Headquarters Garage	Shenipsit State Forest	Garage	$85,066	$285,646	$55,607	$129,749	$111,214	$111,214	$0	$0	$0	$0	$185,356	$5,560,675
	TOLLAND	Stafford		Shenipsit State Forest	Storage	$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	East Windsor				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	East Windsor				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	East Windsor				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	East Windsor				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	HARTFORD	Enfield				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	TOLLAND	Somers		Osborn Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
	TOLLAND	Somers		Osborn Correctional Institution		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$0	$1,303,562	$39,106,849
8000-14	TOLLAND	Somers	Well Pump House 2	Osborn Correctional Institution		$10,496	$285,646	$44,421	$103,650	$88,843	$88,843	$0	$0	$0	$0	$148,071	$4,442,125
8000-8	TOLLAND	Somers	Well Pump House 1	Osborn Correctional Institution		$10,496	$285,646	$44,421	$103,650	$88,843	$88,843	$0	$0	$0	$0	$148,071	$4,442,125
1326-503	NEW LONDON	Waterford	Bath House	Seaside Regional Center		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$0	$0	$1,303,562	$39,106,849
	MIDDLESEX	Middletown		Department of Transportation		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$0	$0	$1,303,562	$39,106,849
4400-117	MIDDLESEX	Middletown	Russell Hall	Connecticut Valley Hospital		$9,636,070	$285,646	$1,488,257	$4,960,858	$0	$2,976,515	$3,472,601	$0	$0	$0	$4,960,858	$148,825,740
4400-77	MIDDLESEX	Middletown	Dix Hall	Connecticut Valley Hospital		$4,186,769	$70,446	$638,582	$2,128,608	$0	$1,277,165	$1,490,025	$0	$0	$0	$2,128,608	$63,858,225
8102-7953	MIDDLESEX	Middletown	Administration Bld #1	Connecticut Valley Hospital		$4,416,507	$82,630	$674,871	$2,249,569	$0	$1,349,741	$1,574,698	$0	$0	$0	$2,249,569	$67,487,055
	NEW HAVEN	Cheshire				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$0	$0	$1,303,562	$39,106,849
	NEW HAVEN	Cheshire				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$0	$0	$1,303,562	$39,106,849
	NEW HAVEN	Madison		Hammonasset Beach State Park		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$0	$0	$1,303,562	$39,106,849
3100-69	MIDDLESEX	Haddam	Headquarters Garage			$65,367	$33,903	$14,890	$49,635	$0	$29,781	$34,744	$0	$0	$0	$49,635	$1,489,049
3100-68	MIDDLESEX	Haddam	Clark House			$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$0	$0	$1,303,562	$39,106,849
8000-334	MIDDLESEX	Haddam	Generator Garage-Haddam			$15,242	$285,646	$45,133	$150,444	$0	$90,267	$105,311	$0	$0	$0	$150,444	$4,513,329
3100-6842	MIDDLESEX	East Hampton				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$0	$0	$1,303,562	$39,106,849
3100-89	MIDDLESEX	Portland	Tool Shed			$43,517	$285,646	$49,374	$164,581	$0	$98,749	$115,207	$0	$0	$0	$164,581	$4,937,445
5000-775	HARTFORD	Southington	Mobile Office Trailer			$5,029	$285,646	$43,601	$101,736	$0	$87,203	$101,736	$0	$0	$0	$145,338	$4,360,127
7301-114	TOLLAND	Mansfield	0191 Mansfield Apartments Building 15 (6 Units)	University of Connecticut - Storrs Campus	Residence	$777,535	$3,767	$117,195	$273,456	$0	$234,391	$273,456	$0	$0	$0	$390,651	$11,719,535
7301-115	TOLLAND	Mansfield	0192 Mansfield Apartments Building 16 (4 Units)	University of Connecticut - Storrs Campus	Residence	$596,305	$285,646	$132,293	$308,683	$0	$264,585	$308,683	$0	$0	$0	$440,975	$13,229,260

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$0	$0	$1,303,562	$39,106,849
5000-409	NEW LONDON	Lisbon	Jet Hangar (4 Bays)	Not Part Of A Facility		$23,692	$285,646	$46,401	$154,669	$0	$92,801	$108,268	$0	$0	$0	$154,669	$4,640,067
5000-799	NEW LONDON	Lisbon	Cold Storage Building	Not Part Of A Facility		$2,890	$285,646	$43,280	$144,268	$0	$86,561	$100,988	$0	$0	$0	$144,268	$4,328,044
7301-1116	TOLLAND	Mansfield	0367 Soccer Ticket Booth South	University of Connecticut - Storrs Campus		$1,967	$285,646	$43,142	$100,664	$0	$86,284	$100,664	$0	$0	$0	$143,806	$4,314,192
7301-1130	TOLLAND	Mansfield	0398 Shuttlebus Shelter 3-W Lot	University of Connecticut - Storrs Campus		$28,894	$285,646	$47,181	$110,089	$0	$94,362	$110,089	$0	$0	$0	$157,270	$4,718,105
7301-1133	TOLLAND	Mansfield	0401 Shuttlebus Shelter 6-F Lot	University of Connecticut - Storrs Campus		$36,940	$285,646	$48,388	$112,905	$0	$96,776	$112,905	$0	$0	$0	$161,293	$4,838,789
7301-438	TOLLAND	Mansfield	2104 Depot - Birch Cottage	University of Connecticut - Depot		$35,210	$285,646	$48,128	$112,299	$0	$96,257	$112,299	$0	$0	$0	$160,428	$4,812,835
7301-136	TOLLAND	Mansfield	0219 House 06	University of Connecticut - Storrs Campus	Residence	$132,025	$285,646	$62,651	$146,185	$0	$125,301	$146,185	$0	$0	$0	$208,835	$6,265,062
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$0	$0	$1,303,562	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$0	$0	$1,303,562	$39,106,849
	TOLLAND	Mansfield		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks		Bradley International Airport		$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$0	$0	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$0	$0	$1,303,562	$39,106,849
	MIDDLESEX	Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$2,607,123	$0	$0	$1,303,562	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
7803-7645	FAIRFIELD	Danbury	Holy Trinity Church	Western Connecticut State University - Midtown Campus	Chapel	$308,751	$285,646	$89,159	$297,198	$0	$178,319	$0	$0	$0	$594,397	$297,198	$8,915,950
2000-30	HARTFORD	Simsbury	Range	Range		$245,140	$285,646	$79,618	$185,775	$0	$159,236	$0	$0	$0	$530,786	$265,393	$7,961,792
	HARTFORD	Simsbury		Range		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$2,607,123	$1,303,562	$39,106,849
	HARTFORD	Windsor		Railroad ROW		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$2,607,123	$1,303,562	$39,106,849
	HARTFORD	Windsor		Railroad Row		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$2,607,123	$1,303,562	$39,106,849
2201-8	HARTFORD	Avon	Derrin House Museum			$41,122	$285,646	$49,015	$114,369	$0	$98,030	$0	$0	$0	$326,768	$163,384	$4,901,524
2201-6	HARTFORD	Avon	Old Stable			$125,904	$285,646	$61,733	$144,043	$0	$123,465	$0	$0	$0	$411,551	$205,775	$6,173,259
2201-7118	HARTFORD	Avon	Administration			$968,849	$285,646	$188,174	$439,073	$0	$376,349	$0	$0	$0	$1,254,495	$627,248	$18,817,425
	HARTFORD	Avon				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$0	$2,607,123	$1,303,562	$39,106,849
7301-362	HARTFORD	West Hartford	3202 School of Social Work	UCONN LAW SCHOOL		$5,750,744	$1,064,465	$1,022,281	$2,385,323	$0	$2,044,563	$0	$0	$0	$6,815,209	$3,407,604	$102,228,134
8102-7959	MIDDLESEX	Middletown	Support Services - Green House	Connecticut Valley Hospital		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$0	$2,607,123	$1,303,562	$39,106,849
4125-304125	NEW HAVEN	Meriden	Residential Units (DDS)	Henry D. Altobello Children & Youth Center		$2,097,645	$93,818	$328,719	$1,095,732	$0	$657,439	$0	$0	$0	$2,191,463	$1,095,732	$32,871,947
	HARTFORD	Suffield				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$2,607,123	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$2,607,123	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$2,607,123	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$2,607,123	$1,303,562	$39,106,849
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$0	$0	$0	$2,607,123	$1,303,562	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$912,493	$0	$0	$2,607,123	$1,303,562	$39,106,849
1312-18	HARTFORD	Rocky Hill	Employer Support of the Guard and Reserve	Veteran's Home & Hospital	Building No. 18	$268,924	$285,646	$83,186	$194,100	$0	$166,371	$0	$0	$110,914	$0	$277,285	$8,318,553
(none)	HARTFORD	Rocky Hill		Veteran's Home & Hospital	Incinerator Dumpster	$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
1312-35	HARTFORD	Rocky Hill	Incinerator	Veteran's Home & Hospital	Building No. 61	$307,794	$79,500	$58,094	$135,553	$0	$116,188	$0	$0	$77,459	$0	$193,647	$5,809,404
7804-7117	NEW HAVEN	New Haven	Michael J. Adanti Student Center	Southern Connecticut State University	Building No. 14, Education	$25,041,999	$1,980,111	$4,053,317	$13,511,055	$0	$8,106,633	$0	$0	$5,404,422	$0	$13,511,055	$405,331,653
7804-27	NEW HAVEN	New Haven	Buley Library (addition)	Southern Connecticut State University	Education	$15,880,860	$20,745,695	$5,493,983	$18,313,278	$0	$10,987,967	$0	$0	$7,325,311	$0	$18,313,278	$549,398,331

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
7804-19	NEW HAVEN	New Haven	Engleman Hall	Southern Connecticut State University	Building No. 10, Education	$74,385,131	$8,023,442	$12,361,286	$41,204,286	$0	$24,722,572	$0	$0	$16,481,715	$0	$41,204,286	$1,236,128,589
7804-39	NEW HAVEN	Hamden	North Campus Residence Complex - Townhouse D	Southern Connecticut State University	Building No. 34, Residence	$849,487	$7,385	$128,531	$428,436	$0	$257,061	$0	$0	$171,374	$0	$428,436	$12,853,075
7804-2	NEW HAVEN	New Haven	Chase Hall	Southern Connecticut State University	Building No. 24, Education	$10,879,285	$188,547	$1,660,175	$5,533,916	$0	$3,320,350	$0	$0	$2,213,566	$0	$5,533,916	$166,017,482
7804-4865	NEW HAVEN	New Haven	Wilkinson Hall	Southern Connecticut State University	Building No. 23, Education	$9,772,455	$188,558	$1,494,152	$4,980,506	$0	$2,988,304	$0	$0	$1,992,203	$0	$4,980,506	$149,415,188
7804-11	NEW HAVEN	New Haven	Farnham Hall	Southern Connecticut State University	Building No. 22, Residence	$9,806,530	$331,575	$1,520,716	$5,069,053	$0	$3,041,432	$0	$0	$2,027,621	$0	$5,069,053	$152,071,582
(none)	NEW HAVEN	New Haven		Southern Connecticut State University	Garage	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
7804-30	NEW HAVEN	New Haven	Orlando Public Health Building	Southern Connecticut State University	Building No. 20, Office	$446,492	$108,597	$83,263	$277,545	$0	$166,527	$0	$0	$111,018	$0	$277,545	$8,326,337
(unknown)	NEW HAVEN	New Haven		Southern Connecticut State University	CERAMIC OR GLASS BLOWING?	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
(unknown)	NEW HAVEN	New Haven		Southern Connecticut State University	Garage CERAMIC OR GLASS BLOWING?	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
7804-7103	NEW HAVEN	New Haven	Plant Maintenance Warehouse #6	Southern Connecticut State University	Maintenance/Repair Shop (demolished)	$338,318	$285,646	$93,595	$311,982	$0	$187,189	$0	$0	$124,793	$0	$311,982	$9,359,459
	NEW LONDON	Norwich	Staff House	Uncas-on-Thames Hospital	Building No. 6	$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
1326-537	NEW LONDON	Norwich	Carpenter Shop	Uncas-on-Thames Hospital	Building No. 12	$70,051	$285,646	$53,355	$177,848	$0	$106,709	$0	$0	$71,139	$0	$177,848	$5,335,451
1326-547	NEW LONDON	Norwich	Tool Shed/Garage	Uncas-on-Thames Hospital	Building No. 13	$20,966	$285,646	$45,992	$153,306	$0	$91,984	$0	$0	$61,323	$0	$153,306	$4,599,188
1326-551	NEW LONDON	Norwich	Machine Shop	Uncas-on-Thames Hospital	Building No. 14	$137,273	$285,646	$63,438	$211,460	$0	$126,876	$0	$0	$84,584	$0	$211,460	$6,343,787
	NEW LONDON	Norwich		Uncas-on-Thames Hospital		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
7701-35	NEW LONDON	Norwich	Mohegan Campus	Three Rivers Community College	Education	$9,696,410	$285,646	$1,497,308	$4,991,028	$0	$2,994,617	$0	$0	$1,996,411	$0	$4,991,028	$149,730,847
7302-13	HARTFORD	Farmington	1 Pharm	UCONN HEALTH CENTER		$811,418	$549,163	$204,087	$476,203	$0	$408,174	$0	$0	$272,116	$0	$680,291	$20,408,718
7302-14	HARTFORD	Farmington	2 Pharm	UCONN HEALTH CENTER		$810,968	$462,641	$191,041	$445,763	$0	$382,083	$0	$0	$254,722	$0	$636,804	$19,104,134
(none)	HARTFORD	New Britain		E.C. Goodwin Technical High School		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
7001-15	HARTFORD	New Britain	EC Goodwin Technical High School	E.C. Goodwin Technical High School		$29,706,237	$2,383,159	$4,813,409	$11,231,288	$0	$9,626,819	$0	$0	$6,417,879	$0	$16,044,698	$481,340,929
(none)	HARTFORD	New Britain		E.C. Goodwin Technical High School		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
(none)	HARTFORD	New Britain		E.C. Goodwin Technical High School		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
2201-58	HARTFORD	New Britain	State Armory			$2,300,378	$10,124	$346,575	$808,676	$0	$693,151	$0	$0	$462,100	$0	$1,155,251	$34,657,533
7802-41	HARTFORD	New Britain	Institution of Technology and Business Development			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
9001-484	HARTFORD	New Britain	New Britain Superior Court			$34,306,429	$2,202,277	$5,476,306	$12,778,047	$0	$10,952,612	$0	$0	$7,301,741	$0	$18,254,353	$547,630,588
1326-489	HARTFORD	New Britain	10 Franklin Square			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
	HARTFORD	Newington				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
	HARTFORD	Newington				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
4400-352	HARTFORD	Newington	Cottage #14	Cedarcrest Hospital		$129,827	$285,646	$62,321	$145,416	$0	$124,642	$0	$0	$83,095	$0	$207,737	$6,232,100
4400-355	HARTFORD	Newington	Cottage #25	Cedarcrest Hospital		$142,603	$285,646	$64,237	$149,887	$0	$128,475	$0	$0	$85,650	$0	$214,125	$6,423,739
4400-356	HARTFORD	Newington	Cottage #26	Cedarcrest Hospital		$142,603	$285,646	$64,237	$149,887	$0	$128,475	$0	$0	$85,650	$0	$214,125	$6,423,739
4400-87	MIDDLESEX	Middletown	Greenhouse	Connecticut Valley Hospital		$326,454	$285,646	$91,815	$306,050	$0	$183,630	$0	$0	$122,420	$0	$306,050	$9,181,495
4400-90	MIDDLESEX	Middletown	Haviland Hall	Connecticut Valley Hospital		$2,911,579	$81,356	$448,940	$1,496,468	$0	$897,881	$0	$0	$598,587	$0	$1,496,468	$44,894,028
4400-134	MIDDLESEX	Middletown	Chapel	Connecticut Valley Hospital		$1,112,464	$24,643	$170,566	$568,554	$0	$341,132	$0	$0	$227,421	$0	$568,554	$17,056,608
4400-31	MIDDLESEX	Middletown	Battell Hall	Connecticut Valley Hospital		$16,207,537	$625,889	$2,525,014	$8,416,713	$0	$5,050,028	$0	$0	$3,366,685	$0	$8,416,713	$252,501,385
4400-132	MIDDLESEX	Middletown	Woodward Hall Infirmary	Connecticut Valley Hospital		$8,877,188	$166,294	$1,356,522	$4,521,741	$0	$2,713,045	$0	$0	$1,808,696	$0	$4,521,741	$135,652,233
4400-119	MIDDLESEX	Middletown	Shepherd Home	Connecticut Valley Hospital		$1,650,279	$285,646	$290,389	$967,963	$0	$580,778	$0	$0	$387,185	$0	$967,963	$29,038,881

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
4400-125	MIDDLESEX	Middletown	Superintendant's Garage	Connecticut Valley Hospital		$20,678	$285,646	$45,949	$153,162	$0	$91,897	$0	$0	$61,265	$0	$153,162	$4,594,858
4400-124	MIDDLESEX	Middletown	Superindendant's House	Connecticut Valley Hospital		$457,077	$285,646	$111,409	$371,362	$0	$222,817	$0	$0	$148,545	$0	$371,362	$11,140,852
4400-49	MIDDLESEX	Middletown	Cottage 16	Connecticut Valley Hospital		$58,191	$285,646	$51,576	$171,918	$0	$103,151	$0	$0	$68,767	$0	$171,918	$5,157,551
4400-42	MIDDLESEX	Middletown	Cottage 05 & 06 Duplex	Connecticut Valley Hospital		$142,408	$285,646	$64,208	$214,027	$0	$128,416	$0	$0	$85,611	$0	$214,027	$6,420,817
4400-41	MIDDLESEX	Middletown	Cottage 03 And 04 Duplex	Connecticut Valley Hospital		$142,408	$285,646	$64,208	$214,027	$0	$128,416	$0	$0	$85,611	$0	$214,027	$6,420,817
4400-40	MIDDLESEX	Middletown	Cottage 02	Connecticut Valley Hospital		$87,131	$285,646	$55,917	$186,388	$0	$111,833	$0	$0	$74,555	$0	$186,388	$5,591,650
4400-108	MIDDLESEX	Middletown	Old Tin Shop	Connecticut Valley Hospital		$136,848	$285,646	$63,374	$211,247	$0	$126,748	$0	$0	$84,499	$0	$211,247	$6,337,410
4400-32	MIDDLESEX	Middletown	Beers Hall	Connecticut Valley Hospital		$4,413,478	$285,646	$704,869	$2,349,562	$0	$1,409,737	$0	$0	$939,825	$0	$2,349,562	$70,486,868
4400-130	MIDDLESEX	Middletown	Weeks Hall Garage	Connecticut Valley Hospital		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
	MIDDLESEX	Portland		Department of Transportation		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
	MIDDLESEX	East Hampton		Department of Transportation		$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
7701-10	LITCHFIELD	Winchester	North Building	Northwestern Community College		$2,902,799	$749,264	$547,809	$1,278,222	$0	$1,095,619	$0	$0	$730,413	$0	$1,826,032	$54,780,947
	LITCHFIELD	Litchfield				$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
8000-175	NEW HAVEN	Cheshire	Cottage H			$2,711,224	$38,664	$412,483	$1,374,944	$0	$824,966	$0	$0	$549,978	$0	$1,374,944	$41,248,319
8000-176	NEW HAVEN	Cheshire	Cottage I			$2,556,805	$38,883	$389,353	$1,297,844	$0	$778,706	$0	$0	$519,138	$0	$1,297,844	$38,935,323
4125-284125	NEW HAVEN	Meriden	Activity Building (DDS)	Henry D. Altobello Children & Youth Center		$699,151	$224,453	$138,541	$461,802	$0	$277,081	$0	$0	$184,721	$0	$461,802	$13,854,060
5000-120	HARTFORD	Farmington	Maintenance Garage			$922,352	$244,316	$175,000	$408,334	$0	$350,001	$0	$0	$233,334	$0	$583,334	$17,500,025
7701-27	HARTFORD	Farmington	Academic West			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
1326-484	HARTFORD	Hartford	450 Capitol Ave			$2,461,464	$801,488	$489,443	$1,142,033	$0	$978,886	$0	$0	$652,590	$0	$1,631,476	$48,944,287
9001-7108	HARTFORD	Hartford	Family Court; Administrative Offices			$15,000,000	$400,000	$2,310,000	$5,390,000	$0	$4,620,000	$0	$0	$3,080,000	$0	$7,700,000	$231,000,000
5000-7120	HARTFORD	East Hartford	Sign Storage			$87,158	$285,646	$55,921	$130,482	$0	$111,841	$0	$0	$74,561	$0	$186,402	$5,592,068

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
1310-709	HARTFORD	East Hartford	Rentschler Field Stadium			$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
7302-7814	HARTFORD	East Hartford	East Hartford-UMG			$2,321,477	$522,842	$426,648	$995,512	$0	$853,296	$0	$0	$568,864	$0	$1,422,160	$42,664,791
						$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
	TOLLAND	Mansfield		UConn - Spring Hill Farm		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
7301-107	TOLLAND	Mansfield	0184 Mansfield Apartments Building 07 (4 Units)	University of Connecticut - Storrs Campus	Residence	$598,161	$285,646	$132,571	$309,332	$0	$265,142	$0	$0	$176,761	$0	$441,904	$13,257,105
7301-108	TOLLAND	Mansfield	0185 Mansfield Apartments Building 09 (4 Units)	University of Connecticut - Storrs Campus	Residence	$598,161	$285,646	$132,571	$309,332	$0	$265,142	$0	$0	$176,761	$0	$441,904	$13,257,105
7301-111	TOLLAND	Mansfield	0188 Mansfield Apartments Building 12 (6 Units)	University of Connecticut - Storrs Campus	Residence	$789,154	$285,646	$161,220	$376,180	$0	$322,440	$0	$0	$214,960	$0	$537,400	$16,122,002
7301-110	TOLLAND	Mansfield	0187 Mansfield Apartments Building 11 (4 Units)	University of Connecticut - Storrs Campus	Residence	$596,305	$1,119	$89,614	$209,098	$0	$179,227	$0	$0	$119,485	$0	$298,712	$8,961,360
7301-519	TOLLAND	Mansfield	0425 Wilson Hall /South Camp.A	University of Connecticut - Storrs Campus	Residence	$11,849,547	$150,739	$1,800,043	$4,200,100	$0	$3,600,086	$0	$0	$2,400,057	$0	$6,000,143	$180,004,297
7301-160	TOLLAND	Mansfield	0245 Von Der Mehden Recital Hall	University of Connecticut - Storrs Campus	Residence	$3,191,198	$342,235	$530,015	$1,236,701	$0	$1,060,030	$0	$0	$706,686	$0	$1,766,716	$53,001,487
7301-7782	TOLLAND	Mansfield	0478 Nafe Katter Theatre	University of Connecticut - Storrs Campus	Theater/Auditorium	$4,543,281	$6,046	$682,399	$1,592,264	$0	$1,364,798	$0	$0	$909,865	$0	$2,274,663	$68,239,899
7301-253	TOLLAND	Mansfield	0374 Gampel Pavilion - Sports Center	University of Connecticut - Storrs Campus		$47,919,021	$3,702,140	$7,743,174	$18,067,406	$0	$15,486,348	$0	$0	$10,324,232	$0	$25,810,580	$774,317,412
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
7301-24	TOLLAND	Mansfield	0030 Natural History Museum	University of Connecticut - Storrs Campus	Storage/Warehouse	$1,549,328	$78,701	$244,204	$569,810	$0	$488,409	$0	$0	$325,606	$0	$814,015	$24,420,444
7301-7143	TOLLAND	Mansfield	0126 Wilbur Cross	University of Connecticut - Storrs Campus	Education	$40,351,983	$10,395,581	$7,612,135	$17,761,647	$0	$15,224,269	$0	$0	$10,149,513	$0	$25,373,782	$761,213,456
7301-32	TOLLAND	Mansfield	0043 Lakeside Building	University of Connecticut - Storrs Campus	Residence	$1,147,006	$93,214	$186,033	$434,077	$0	$372,066	$0	$0	$248,044	$0	$620,110	$18,603,300
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
	TOLLAND	Mansfield		University of Connecticut - Storrs Campus		$2,321,477	$285,646	$391,068	$912,493	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
7301-7193	TOLLAND	Mansfield	0448 La Flesche Hall, Hilltop Apt. 15	University of Connecticut - Storrs Campus	Residence	$2,294,289	$285,646	$386,990	$902,977	$0	$773,980	$0	$0	$515,987	$0	$1,289,967	$38,699,022

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
7301-7192	TOLLAND	Mansfield	0447 Beard Hall, Hilltop Apt. 14	University of Connecticut - Storrs Campus	Residence	$3,183,767	$285,646	$520,412	$1,214,294	$0	$1,040,824	$0	$0	$693,883	$0	$1,734,706	$52,041,192
7301-7196	TOLLAND	Mansfield	0451 Merritt Hall, Hilltop Apt. 18	University of Connecticut - Storrs Campus	Residence	$2,294,289	$285,646	$386,990	$902,977	$0	$773,980	$0	$0	$515,987	$0	$1,289,967	$38,699,022
7301-228	TOLLAND	Mansfield	0346 Putnam Refectory	University of Connecticut - Storrs Campus	Residence	$9,676,483	$231,241	$1,486,159	$3,467,703	$0	$2,972,317	$0	$0	$1,981,545	$0	$4,953,862	$148,615,862
7301-7163	TOLLAND	Mansfield	0221 Jorgensen Center for Performing	University of Connecticut - Storrs Campus	Theater/Auditorium	$14,334,534	$1,441,922	$2,366,468	$5,521,760	$0	$4,732,937	$0	$0	$3,155,291	$0	$7,888,228	$236,646,839
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
2201-150	NEW LONDON	East Lyme	Class Room	Camp Rell	Military	$141,418	$285,646	$64,060	$213,532	$0	$128,119	$0	$0	$85,413	$0	$213,532	$6,405,960
2201-145	NEW LONDON	East Lyme	Storage	Camp Rell	Military	$87,519	$285,646	$55,975	$186,583	$0	$111,950	$0	$0	$74,633	$0	$186,583	$5,597,477
2201-138	NEW LONDON	East Lyme	Admin. /Supply	Camp Rell	Military	$58,342	$285,646	$51,598	$171,994	$0	$103,196	$0	$0	$68,798	$0	$171,994	$5,159,818
2201-175	NEW LONDON	East Lyme	Public Info. Office	Camp Rell	Military	$21,869	$285,646	$46,127	$153,758	$0	$92,255	$0	$0	$61,503	$0	$153,758	$4,612,733
2201-172	NEW LONDON	East Lyme	Post Exchange	Camp Rell	Military	$84,100	$285,646	$55,462	$184,873	$0	$110,924	$0	$0	$73,949	$0	$184,873	$5,546,193
2201-208	NEW LONDON	East Lyme	Post HQ	Camp Rell	Military	$214,896	$285,646	$75,081	$250,271	$0	$150,163	$0	$0	$100,108	$0	$250,271	$7,508,136
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
2201-200	NEW LONDON	East Lyme	169th Leadership Office	Camp Rell	Military	$87,519	$285,646	$55,975	$186,583	$0	$111,950	$0	$0	$74,633	$0	$186,583	$5,597,477
2201-165	NEW LONDON	East Lyme	Quarters Building	Camp Rell	Troop Barracks	$2,774,928	$285,646	$459,086	$1,530,287	$0	$918,172	$0	$0	$612,115	$0	$1,530,287	$45,908,613
2201-162	NEW LONDON	East Lyme	Point	Camp Rell	Military	$173,627	$285,646	$68,891	$229,636	$0	$137,782	$0	$0	$91,855	$0	$229,636	$6,889,092
2201-129	NEW LONDON	East Lyme	Distingus Visitors Quarters	Camp Rell	Military	$108,884	$4,490	$17,006	$56,687	$0	$34,012	$0	$0	$22,675	$0	$56,687	$1,700,615
2201-7102	NEW LONDON	East Lyme	Training Shelter #1, Old# 22	Camp Rell	Other	$169,301	$285,646	$68,242	$227,473	$0	$136,484	$0	$0	$90,989	$0	$227,473	$6,824,200

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	NEW LONDON	East Lyme				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
	NEW LONDON	Waterford				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
	FAIRFIELD	Newtown				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$0	$0	$521,425	$0	$1,303,562	$39,106,849
4101-23	NEW HAVEN	Southbury	Cottage 12	Southbury Training School		$327,485	$285,646	$91,970	$306,566	$183,939	$183,939	$0	$0	$122,626	$0	$306,566	$9,196,968
4101-12	NEW HAVEN	Southbury	Cottage 2	Southbury Training School		$265,421	$285,646	$82,660	$275,534	$165,320	$165,320	$0	$0	$110,213	$0	$275,534	$8,266,009
4101-101	NEW HAVEN	Southbury	Personnel Village 30	Southbury Training School		$141,483	$285,646	$64,069	$213,564	$128,139	$128,139	$0	$0	$85,426	$0	$213,564	$6,406,933
4101-63	NEW HAVEN	Southbury	Lake Stibbs Pavillion	Southbury Training School		$47,538	$285,646	$49,978	$166,592	$99,955	$99,955	$0	$0	$66,637	$0	$166,592	$4,997,764
4101-121	NEW HAVEN	Southbury	Restroom in Park	Southbury Training School		$4,074	$285,646	$43,458	$144,860	$86,916	$86,916	$0	$0	$57,944	$0	$144,860	$4,345,809
4101-2	NEW HAVEN	Southbury	Cottage 36	Southbury Training School		$433,917	$285,646	$107,934	$359,782	$215,869	$215,869	$0	$0	$143,913	$0	$359,782	$10,793,448
4101-24	NEW HAVEN	Southbury	Cottage 14	Southbury Training School		$327,485	$285,646	$91,970	$306,566	$183,939	$183,939	$0	$0	$122,626	$0	$306,566	$9,196,968
4101-25	NEW HAVEN	Southbury	Cottage 15	Southbury Training School		$604,941	$285,646	$133,588	$445,294	$267,176	$267,176	$0	$0	$178,118	$0	$445,294	$13,358,813
4101-59	NEW HAVEN	Southbury	Health Care Center	Southbury Training School		$1,573,060	$285,646	$278,806	$929,353	$557,612	$557,612	$0	$0	$371,741	$0	$929,353	$27,880,593
4101-93	NEW HAVEN	Southbury	Personnel Village 22	Southbury Training School		$127,599	$285,646	$61,987	$206,622	$123,973	$123,973	$0	$0	$82,649	$0	$206,622	$6,198,670
	NEW HAVEN	Southbury				$2,321,477	$285,646	$391,068	$1,303,562	$782,137	$782,137	$0	$2,607,123	$521,425	$0	$1,303,562	$39,106,849
2201-4754	HARTFORD	Avon	Horse Stable			$356,766	$137,820	$74,188	$173,105	$0	$148,376	$0	$0	$98,917	$494,586	$247,293	$7,418,784

JESTIR_ID	County	Municipality	Structure Name	Property Name	Structure Use	Building Value	Contents Value	Thunderstorm Losses	Tropical Cyclone Losses	Tornado Losses	Winter Weather Losses	Flood Losses	SLR Losses	Erosion Losses	Dam Inundation Losses	WUI Losses	Earthquake Losses
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$2,607,123	$1,303,562	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$2,607,123	$1,303,562	$39,106,849
	MIDDLESEX	East Haddam				$2,321,477	$285,646	$391,068	$1,303,562	$0	$782,137	$912,493	$0	$521,425	$2,607,123	$1,303,562	$39,106,849
2201-121	HARTFORD	Windsor Locks				$34,179	$285,646	$47,974	$111,939	$95,948	$95,948	$111,939	$0	$63,965	$319,825	$159,913	$4,797,381
	HARTFORD	Windsor Locks				$2,321,477	$285,646	$391,068	$912,493	$782,137	$782,137	$912,493	$0	$521,425	$2,607,123	$1,303,562	$39,106,849

Capability Assessment
Appendix 3

APPENDIX 3-1. HMGP ADMIN PLAN

APPENDIX 3-2. USDA FOREST SERVICE GRANT PROGRAMS

APPENDIX 3-3. CONNECTICUT NATURAL DISASTER PLAN 2009

Appendix 3-1. HMGP Admin Plan

STATE OF CONNECTICUT
HAZARD MITIGATION GRANT PROGRAM

ADMINISTRATIVE PLAN

William J. Hackett
State Emergency Management Director/State Coordinating Officer

William P. Shea
Deputy Commissioner/Governor's Authorized Representative

HAZARD MITIGATION GRANT PROGRAM
DISASTER # 4213

June 29, 2015

Prepared by the State of Connecticut
Department of Emergency Services and Public Protection
Division of Emergency Management and Homeland Security
25 Sigourney Street
Hartford, Connecticut 06106

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Appendix

1. Introduction

1.1 Purpose:

The purpose of the State of Connecticut's Hazard Mitigation Grant Program Administrative Plan is to fulfill and implement the goals and strategies contained in the State Natural Hazard Mitigation Plan Update approved on January 9, 2014. This Administrative Plan outlines the management procedures that the State will use to administer the Federal Hazard Mitigation Grant Program (HMGP).

The management of mitigation projects funded under the HMGP will be carried out under the provisions of Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1989 (Stafford Act), Public Law 100-707, as implemented by 44 CFR, Part 206, Subpart N, subsection 206.407. Section 404 of the Stafford Act establishes an independent grant program to be used to fund State and local mitigation measures.

This Plan has been updated as a result of the most recent Presidential Disaster Declaration on April 8, 2015 (FEMA-4213-DR-CT) for the Severe Winter Storm and Snowstorm that occurred in Connecticut from January 26 – 28, 2015.

1.2 Summary of the Hazard Mitigation Grant Program:

The HMGP is active only following a Presidentially Declared Disaster. The HMGP provides grants up to 75% of the total project cost for projects that mitigate damage from natural disasters. In response to a flash flood disaster declaration in June 1982 (FEMA-661-DP), the State of Connecticut drafted its first flood hazard mitigation plan under the provisions of Section 406 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 93-288). When Connecticut was struck again by widespread flooding in June 1984 (FEMA-711-DR-CT) additional mitigation measures were added to Connecticut's mitigation plan.

In 1988, the Stafford Act was amended and Section 406 was renumbered as Section 409. Since the passage of the amended Stafford Act in 1988, Connecticut has suffered from thirteen Presidential declared disasters:

1) The Western Connecticut Tornado of July 10, 1989 (DR-837-CT)
2) Hurricane Bob on August 19, 1991 (DR-916-CT)
3) December Nor'easter (Winter Storm Beth) on December 10,1992 (DR-972-CT)
4) Blizzard January 7-13, 1996 (DR-1092-CT)
5) Tropical Storm Floyd on September 16, 1999 (DR-1302-CT)
6) Severe Flooding on October 14-15, 2005 (DR-1619-CT)
7) Severe Flooding on April 15 – 17, 2007 (DR-1700-CT)
8) Flooding and Wind Damage in March, 2010 (DR-1904-CT)
9) Record Winter Storm Snowfall, January 11 – 12, 2011 (DR-1958-CT)

10) Tropical Storm Irene, August 28 – September 1, 2011 (DR-4023-CT)
11) October Nor'easter, October 29 – 30, 2011 (DR-4046-CT)
12) Super-storm Sandy, October 27 – November 8, 2012 (DR-4087-CT)
13) Severe Winter Storm and Snowstorm, February 8-11, 2013 (DR-4106-CT)
14) Severe Winter Storm and Snowstorm, January 26 – 28, 2015 (DR-4213-CT)

Following any Presidential Disaster Declaration, the Federal Emergency Management Agency (FEMA) requires that the State HMGP Administrative Plan be updated in order to receive HMGP funds. The State will also amend the Plan whenever necessary to reflect a material change in any State law, organizational, policy, or State agency operation.

Furthermore the State of Connecticut will comply with all applicable Federal Statutes and Regulations in effect with respect to the periods in which it receives grant funding under the HMGP.

1.3 Authorities and References

- Section 1361A of the National Flood Insurance Act of 1968 (or "the Act"), 42 U.S.C. 4102A, as amended by the Bunning-Bereuter-Blumenauer Flood Insurance Reform Act of 2004, Public Law 108-264.
- FEMA Regulations – 44 CFR, Part 206, Subparts M and N (Public Law 93-288 as amended by Public Law 100-707, The Robert T. Stafford Disaster Relief and Emergency Assistance Act) and the Disaster Mitigation Act of 2000, Section 322.
- FEMA Law – Title V, The National Flood Insurance Program Reform Act of 1994, Subtitles D, E, and F.
- FEMA Regulations - 44 CFR, Part Section 60.3, the National Flood Insurance Program.
- OMB Uniform Guidance: Cost Principles, Audit and Administrative Requirements for Federal Awards - 2 CFR Part 200, Subparts A-D; 2 CFR Part 200, Subpart E – Cost principles; and 2 CFR Part 200, Subpart F – Audit requirements
- Executive Order 12612, Federalism.
- Executive Order 11990, Protection of Wetlands.
- Executive Order 11988, Floodplain Management.
- Single Audit Act of 1984, as amended.
- Connecticut General Statutes Title 28, Chapter 517, particularly Sections 28-9, 28- 15(a), and 28-15(b), Civil Preparedness and Emergency Services, Federal Aid.
- Connecticut General Statutes, Title 4, Chapter 24, Section 4-28a, Management of State Agencies, State Properties and Funds, Advisory Commission
- Connecticut General Statutes, Section 25-68 et seq., Flood Control Projects.
- 2014 Connecticut Natural Hazard Mitigation Plan Update, January 9, 2014

1.4 Definitions

Application: The initial requests for funding, submitted to FEMA by the State of Connecticut. Application also means the request for funding to be submitted to the State by the sub-applicant (e.g. municipality).

Applicant: The entity, the Department of Emergency Services and Public Protection (DESPP) or federally recognized Native American tribes, applying to FEMA for a Federal award that will be accountable for the use of the funds.

Award: A grant of financial assistance for a specified purpose by the Federal government to an eligible Recipient.

Connecticut Interagency Hazard Mitigation Committee (CIHMC): The committee formed to assist the State Hazard Mitigation Officer (SHMO) in review of mitigation project applications.

Department of Emergency Services and Public Protection (DESPP): The agency designated by the Governor as the responsible agency for all matters related to the HMGP. The Division of Emergency Management and Homeland Security (DEMHS) within DESPP is responsible for emergency management activities under Connecticut General Statutes Title 28.

Governor's Authorized Representative (GAR): The individual designated by the governor to represent the State in activities related to the implementation of Public Law 93-288, the Robert T. Stafford Disaster Relief and Emergency Assistance Act, and in ongoing State disaster, emergency preparedness, response, and hazard mitigation activities. The Commissioner of the Department of Emergency Services and Public Protection or her designated representative may be the GAR.

Grant: An award of financial assistance to the State. The award is solely reimbursement for items purchased or services rendered.

Hazard Mitigation Plan: A plan prepared by the State or a local or tribal government as a condition of receiving federal hazard mitigation funds under Section 409 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended by Section 322 of the Disaster Mitigation Act of 2000.

Hazard Mitigation Survey Team (HMST): The team that is established as the method of identifying mitigation issues in an immediate post-disaster setting. The HMST is also integral to early identification of measures to be funded under some hazard mitigation grant programs.

Measure: Any mitigation project activity, or action proposed to reduce risk of future damage, hardship, loss of life, or suffering from disasters. The term "measure" is used interchangeably with the term "project" in the regulations.

Mitigation: Any sustained action taken to reduce or eliminate long-term risk to life and property from a hazard event.

Project: Any mitigation measure or action proposed to reduce risk of future damage, hardship, loss or suffering from disasters. The term "project" is used interchangeably with the term "measure" in regulations, and the term "measure" is used interchangeably with the term "project."

Recipient: A non-Federal entity that receives a Federal award directly from a Federal awarding agency to carry out an activity under a Federal program. The term Recipient does not include sub-recipients.

State Hazard Mitigation Officer (SHMO): The individual designated by the GAR as the responsible individual for matters related to the Hazard Mitigation Grant Program. The Department of Emergency Services and Public Protection (DESPP) is the agency designated by the Governor as the responsible agency for matters related to the Hazard Mitigation Grant Program.

Deputy State Hazard Mitigation Officer (DSHMO): The individual designated by the GAR as the responsible deputy for matters related to the Hazard Mitigation Grant Program. The DSHMO carries out duties in conjunction with the SHMO including processing reimbursement requests from sub-grantees, preparing any necessary Memoranda of Agreement or Contracts with municipalities, monitoring projects through the performance period and preparing any necessary quarterly reports and preparing the necessary closeout reports at the end of the performance period.

Sub-applicant: Means the municipality, agency, federally recognized Native American tribe or other qualified entity that is applying for a grant.

Sub-award: Means an award of financial assistance under a grant to an eligible Sub-recipient. It does not include payments to a contractor or payments to an individual that is a beneficiary of a Federal program.

Sub-recipient: The government or other legal entity to which a Sub-award is issued and which is accountable to the Grantee for the use of the funds provided. Sub recipients may be a State agency, local government, private nonprofit organization, or Native American Nation.

Other definitions applicable to the hazard mitigation program are found in Section 206.431 and 206, 433 44 CFR.

2. Responsibilities

2.1 State Government

2.1.1 The State of Connecticut DESPP is designated to administer the HMGP program resulting from disaster declaration FEMA-4213-DR-CT.

2.1.2 The State Hazard Mitigation Officer (SHMO) and Deputy State Hazard Mitigation Officer (DSHMO) within DESPP are designated to coordinate activities of the Connecticut Interagency Hazard Mitigation Committee (CIHMC) and to serve as the responsible individuals for project management and program administration. The SHMO and DSHMO will administer the HMGP on a day to day basis.

2.1.3 The CIHMC members are designated by the appropriate Directors or Commissioners of State Agencies having hazard mitigation expertise and responsibilities. State and Federal agencies represented on the CIHMC are listed in Appendix B to this Plan (this list is subject to change as the need arises).

2.1.4 HMGP Staffing Plan: HMGP management costs will fund two full time permanent employees at 50%. It is expected that these positions will be funded through the completion of all awarded projects. Durational positions may be funded on an as-needed basis and as funding allows.

2.2 Local Government

2.2.1 The Chief Executive Officer of the municipality (e.g. First Selectman, Mayor, and Town Manager), the Chief Executive Officer of a qualified private non-profit organization, or the Chief Executive Officer of a federally recognized Native American Tribe will be required to designate an individual, in the application for a grant, who will serve as the point of contact on all matters related to the application.

3. Funding

3.1 For the HMGP the federal share of any selected mitigation project will not exceed 75% of the total project cost. The total federal funds available will not exceed 15% of the Federal share of the FEMA estimate of all Damage Survey Reports under Section 406 (Public Assistance permanent restorative work), Individual Assistance, and administrative mission statements for each disaster.

3.2 The Non-Federal share may exceed the Federal share in the HMGP and may be a combination of other State, local or private funding. The local share may be composed of local government generated revenue, private sector resources, and/or other grant money that law or regulation does not prohibit for this purpose. Any specific requirements for cost-share will be established in FEMA-State Agreements.

4. Eligibility Requirements

The State of Connecticut's eligibility requirements conform to Federal standards. Federal definitions are used to determine eligibility.

4.1 Eligible Grant Sub-Applicants are:

4.1.1 State and local units of government (with an approved Hazard Mitigation Plan).

4.1.2 Private non-profit organizations or institutions that own or operate a private non-profit facility or other public holdings, or are defined as a separate taxing district, as defined in 206.221 (e) 44 CFR of the Stafford Act, and Connecticut General Statutes Section 7-324 et seq.

4.1.3 Federally recognized Native American Tribes and tribal organizations (with an

approved Hazard Mitigation Plan).

4.1.4 Located in communities that meet all federal requirements to allow participation in the National Flood Insurance Program (NFIP), meet all applicable federal, State and local permit requirements. Only communities in good standing with the NFIP will be considered for HMGP funding in Connecticut.

4.2 Eligible Projects must:

- Seek to solve the problems they are intended to address.
- Conform to the State's Natural Hazard Mitigation Plan.
- Address a problem that has been repetitive or a problem that poses a significant risk to health and safety if left unresolved.
- Be cost effective and cost no more than the anticipated value of the reduction in damage to the project area if a future disaster were to occur (benefits must exceed cost of the project proposal).
- Be the most practical, effective, and environmentally sound alternative among a range of alternatives that have been considered.
- Contribute, to the extent practicable, to a permanent or long-term rather than temporary or short-term solution to the problem it is intended to address and avoid unintended consequences.
- Consider long-term changes to the areas and entities it protects and has manageable future maintenance and modification requirements.
- Contribute to a long-term solution that integrates hazard mitigation principles with existing programs and overall community planning.
- Meet all applicable codes, standards, and regulations applicable to the locale including, but not limited to, 44 CFR Part 9, Floodplain Management and Protection of Wetlands, and 44 CFR Part 10, Environmental Considerations.

5. Applicant Notification

5.1 Public Assistance Briefings for the HMGP

The State will coordinate the presentation of information, as needed, on the Hazard Mitigation Grant Program at Public Assistance Applicant's Briefings. The intent of participation in Applicant Briefings is to create an early awareness of Mitigation Grant Programs.

5.2 Notice to Potential Applicants for HMGP Awards

When sufficient funding is determined to be available for the Hazard Mitigation Grant Program (HMGP) to warrant the solicitation of new applications, an invitation to apply will be sent to the chief executive officer of each municipality, chief executive officer of each federally recognized Native American Tribe, and in the designated disaster area as well as other areas deemed by the SHMO and DSHMO to benefit from the announcement. When funding is limited, the State may also consider projects already on its list of priority projects developed and ranked by the CIHMC. (See Section 6, 6.4 List of Projects).

5.3 Special Briefings for the HMGP

As necessary, detailed Hazard Mitigation Grant Program briefings for potential applicants will be scheduled. The briefings will describe eligible activities, funds and Sub-grantee administrative requirements, application process and key deadlines.

6. Project Identification

6.1 Dissemination for HMGP

Information on the Hazard Mitigation Grant Program shall be widely disseminated through multiple sources to potential applicants. However, this will not be done when the State determines that there is a sufficient number of applications already submitted for funding.

6.2 Public Damage Assessment Teams

Information acquired during Preliminary Damage Assessments (PDA) for presidentially-declared disasters is an excellent opportunity for the identification of mitigation issues and potential projects under the HMGP. PDA teams should be briefed, as necessary, as to the availability of funds and requirements of the Hazard Mitigation Grant Program so potential projects can be identified for follow-up by the CIHMC.

6.3 Public Assistance Briefings

Applicants for Public Assistance may be aware of potential mitigation projects that will not be funded through the Public Assistance Program. They will be briefed on the availability of the Hazard Mitigation Grant Program during the Applicant Briefings that are held for Public Assistance. The Public Assistance inspection teams consisting of Federal, State and local representatives will complete detailed inspections of damaged facilities and will be in a position to identify broad or comprehensive projects that may impact several sites.

6.4 List of Projects

An ongoing list of potential HMGP projects shall be identified and maintained by DESPP for various types of mitigation projects. This shall include those applications not funded in prior rounds of funding.

7. Application Procedures

7.1 Submission of Sub-Applications to the State

7.1.1 Sub-Application forms with instruction brochures will be provided for the applicant to provide information necessary to determine eligibility (Sec. 4) and ranking (Sec. 7, 7.2.1).

7.1.2 Sub-Applications should be completed by the responsible governmental entity or private non-profit organization, signed by the Chief Executive Officer of the jurisdiction or organization, and submitted to the DESPP/DEMHS. Un-signed applications will not be accepted.

7.1.3 Sub-Applicants must submit information on their proposed project, in a complete application, by the announced due date to the State Hazard Mitigation Officers to be considered for HMGP (Section 404). Incomplete applications will not be accepted.

7.1.4 The State will submit to FEMA all State-Approved HMGP projects after all State reviews, benefit cost analyses, and ranking by the CIHMC have been completed. When the State has project applications submitted in prior rounds of HMGP that have not yet been obligated, but are deemed eligible for funding, these projects may be submitted to FEMA for consideration and Steps 7.1.1 through 7.1.3 above will not be taken.

7.1.5 DESPP staff will provide technical assistance to grant applicants during the application period. Technical assistance typically includes answering questions concerning eligibility of proposed projects and the approval procedure. All questions regarding permits, licenses and code compliance will be the responsibility of the applicant's jurisdiction.

For more specialized projects applicants may seek technical assistance from other State and Federal Agencies such as:

- Connecticut Department of Energy and Environmental Protection.
- National Weather Service.
- Natural Resources Conservation Service.
- U.S. Army Corps of Engineers.

7.2 Review, Ranking and Selection of Projects

7.2.1 **Review:** The function of the CIHMC is to review and recommend HMGP projects to the SHMO for funding. The SHMO submit the approved funding recommendations to FEMA.

7.2.2 **Ranking:** The CIHMC will rank and assign priorities for funding to all eligible projects. The CIHMC has developed a ranking form (see Page 12) which integrates the top strategies and goals of the State Natural Hazard Mitigation Plan and in accordance with the criteria in Section 4, 4.2 of this Administrative Plan and 44 CFR Section 206.434 (c).

The proposed mitigation measure:

- Should protect life, property and safety.
- Should protect essential services, critical facilities, or the economy of the community.
- Will have the greatest potential impact for reducing future disaster losses.
- Is well-designed, well-organized, and demonstrates the technical capacity to undertake and implement proposed measures successfully.
- Indicates a degree of commitment and support by participants (e.g. active participation, including financial, by local beneficiaries, public and private) and likelihood that the project, as proposed, will succeed in attaining its objectives.
- Fits within the local and State Hazard Mitigation Plan and an overall plan for development and/or hazard mitigation in the community, disaster area, or state.
- Encourages regional or multi-agency cooperation.
- Will serve as a model for other communities and/or State agencies.

During the review and ranking process it may be found that the CIHMC or DESPP will need additional information about the project. The SHMOs are responsible for obtaining the needed information from the Sub-Applicant's point of contact.

7.3 Notification of Sub-Applicants: Following selection of projects to be submitted to FEMA for HMGP funding, the SHMO or DSHMO will notify each applicant of the decision regarding submission of Selected Projects to FEMA.

The SHMOs will ensure that minimum program requirements are met by ensuring that each applicant is a member in good standing of the NFIP and that each application is complete prior to being submitted to FEMA. Incomplete applications will not be submitted to FEMA.

The SHMO is also responsible for sending to FEMA a Standard Form (SF) 424 (Application for Federal Assistance) and an SF 424D (Assurance for Construction Programs) for each project application. The package must contain any pertinent project management information not contained in the State Hazard Mitigation Administrative Plan and identify the specific mitigation measures for which funding is requested. The SF 424 must be signed by the FAM of DESPP and forwarded to FEMA within 60 days of the disaster declaration. If this deadline cannot be met a request for extension shall be submitted to FEMA within 60 days.

Ranking Form

Town Name:_____ Reviewer Name:_____

The extent to which the project ranks:	0 0%	1 20%	2 40%	3 60%	4 80%	5 100%	
Does the proposed measure prevent losses to a NFIP insurable building?							
Does the proposed measure prevent losses to a Severe Repetitive Loss (5pts) or Repetitive Loss Property (3pts)?							
Does the measure directly mitigate the effects of a frequent natural disaster such as flooding, high winds or ice and snow?							
Will the measure result in a long-term solution to natural disasters which require min. maintenance?							
Does the proposed measure provide benefits to a large population of an area (e.g. Culvert upgrade, Bridge Replacement, Public Education…)?							
Does the project represent an innovative approach which can serve as a pilot project in another jurisdiction?							
Project Type: Acquisition (5pts) Elevation (3pts) Drainage/ Other Infrastructure (4 pts) 5% Initiative (1 pt) Planning (5 pts)							
Will the measure eliminate future vulnerability to a common natural hazard (e.g. land acquisition, elevation of buildings, hurricane clips etc.)?							
Does the project protect a critical facility such as a police or fire station?							
Is the proposed measure located in a community that has recently or repeatedly suffered damages from natural disasters?							
Totals							
							Grand Total Score

8 Project Management

8.1 Administration

8.1.1 All HMGP mitigation funding approval for the Recipient and Sub-Recipient will be based on 75% - 25% cost sharing provisions outlined in the FEMA-State Agreements or other published guidance. The Non-Federal share may exceed the Federal share and may be a combination of other State, Local, or private funding. Sub-Recipient applicants for HMGP funding must provide written description of its cost share agreement. Obligation of Federal funds will not take place until approval has been received for the project from FEMA.

8.1.2 Based on the approved application and work schedule of the project(s), a record keeping and financial system will be implemented for the duration of the project. The Sub-recipient will submit quarterly progress reports to the SHMO, beginning the first full quarter after receipt of the funding. These reports should indicate the status and projected completion date of the project, and any problems affecting the completion date, scope, or cost, which could result in non-compliance with approved grant conditions. Failure to submit Quarterly Reports may result in a determination of non-compliance with Award terms. The SHMOs will submit reports to FEMA as required. The final report will be a complete assessment of project accomplishments.

8.1.3 DESPP staff will provide technical assistance to sub-recipients during the performance of projects. Technical assistance typically includes answering questions concerning eligible expenses, processing of agreements and payments. All questions regarding permits, licenses and code compliance will be the responsibility of the applicant's jurisdiction.

8.2 Roles and responsibilities

8.2.1 Sub-recipient (Sub-applicant):

- Will submit complete sub-applications for eligible projects for funding consideration. Incomplete applications will not be accepted.
- Implements monitoring procedures and submits quarterly progress reports to the SHMOs as directed at the time grant is awarded.
- Maintains financial records and receipts necessary to document all expenditures connected with the project including Sub-recipient Administrative costs, if allowed.
- Ensures that any construction is in accordance with applicable standards of safety, decency, and sanitation, and in conformity with applicable codes, specifications, and standards.
- Ensures that all sub-applications include project designs that comply with all applicable Federal, State, and Local regulations.

8.2.2 Recipient (DESPP):

- Provides overall staff support necessary to manage the State Hazard Mitigation Programs and funded HMGP projects.
- Receives quarterly progress reports from Sub-recipient, and reviews and

submits to FEMA as required.

- Reviews certification of costs, cost overruns, audits and appeals, and forwards to the GAR.
- Monitors and evaluates project accomplishment, and adherence to work schedule.
- Maintains necessary financial documentation and progress reports to support funds distributed to Sub-recipient(s).
- Coordinates project actions with the GAR or his designee and provides assistance as required in administering the mitigation program.
- Provides technical assistance to Sub-recipients as necessary.
- Assures necessary interagency coordination on all aspects of the Program.

8.2.3 State Hazard Mitigation Officer (SHMO) and Deputy State Hazard Mitigation Officer (DSHMO):

- Are responsible for overall grant administration.
- Notification of Sub-recipients of actions taken in response to applications.
- Certifies that all claims and costs are eligible and in compliance with provisions of the FEMA/State Agreement. Submits claims to the Regional Administrator for payment.
- Coordinates all actions that pertain to the mitigation grant program with FEMA, as necessary, on matters pertaining to the Hazard Mitigation Programs.
- Will process reimbursement requests from Sub-recipients.
- Prepare any necessary Memoranda of Agreement or Contracts with municipalities.
- Monitor projects through the performance period and prepare any necessary quarterly reports.
- Prepare the necessary closeout reports at the end of the performance period.

8.3 Financial Administration

8.3.1 DESPP will serve as Grantee for project financial administration for disaster declaration #FEMA-DR-4213-CT projects approved in accordance with 44 CFR, Part 13. Sub-recipients(s) (sub-applicants) are accountable to the Recipient for funds that will be awarded.

8.3.2 Allowable costs associated with administering the HMGP programs are authorized in accordance with Section 206-439, and Section 13.22 and 207 of 44 CFR. Administrative costs must be shown as a separate line item and must be approved by the GAR or his designee.

8.3.3 Reimbursement of eligible costs. The Recipient will pay Sub-recipients on a reimbursement basis upon receipt of a reimbursement request. Only up to 90% of the award will be available until after the project is completed; the final share will be paid after the SHMOs and DESPP accounting staff conduct a final project review and all relevant parties have signed off on project completion. In cases of cost overruns, the sub-recipient may request approval of additional costs providing justification (invoices, daily activity reports, progress reports, etc.) for evaluation by the SHMOs, if funding allows.

8.4 Audit Requirements

8.4.1 State Audit

8.4.1.1 The Recipient, and each Sub-recipient, may have audits made in accordance with OMB Uniform Guidance: Cost Principles, Audit and Administrative Requirements for Federal Awards - 2 CFR Part 200, Subparts A-D; 2 CFR Part 200, Subpart E – Cost principles; and 2 CFR Part 200, Subpart F – Audit requirements.

8.4.1.2 DESPP shall review audits completed for the Recipient and Sub-recipient. If adverse findings are reported, the SHMO shall assure that appropriate action is taken and report that action to FEMA.

8.4.1.3 DESPP shall provide a copy of all audits performed on HMGP projects to the FEMA Inspector General.

8.4.1.4 Additionally, the sub-recipients acknowledge and agree that the State Single Audit Act (§§4-230 through 236 inclusive and regulations promulgated there under) requires that all grants, federal or state must be itemized in the sub-recipient audit. As soon as available, a copy of the sub-recipient annual audit documenting HMGP expenditures must be provided to:

Mr. Joseph Duberek, Fiscal Administrative Manager
DESPP/Fiscal Unit
1111 Country Club Road
Middletown, CT 06457

8.4.2 Federal Single Audit Act

The sub-recipients acknowledge and agree that FEMA may elect to conduct a federal audit (Federal Single Audit Act of 1984, P.L. 98-502 and the amendments of 1996 P.L. 104-156) of the HMGP award or on any of the sub-awards.

8.5 Management Costs

8.5.1 Management costs will be provided at a rate of 4.89 percent of the HMGP ceiling to the State Administrating Agency (Recipient). Management costs are provided outside of and separate from the HMGP ceiling amount. Because available HMGP management costs are calculated as a percentage of the Federal funds provided, there is no additional cost share requirement for HMGP management costs.

8.5.2 Management costs will be provided to the Sub-Recipient at a rate of 1% of the federal share of the HMGP grant. The State Administrating Agency (Recipient) will retain the remaining 3.89% of the management costs for the management of the HMGP.

8.6 Sub-Applicant Appeals

8.6.1 The sub-applicant may elect to appeal a decision, made by the SHMOs, on applications for mitigation grants.

8.6.2 The appeal will be submitted in writing and contain sufficient additional information, over that submitted with the original application, to warrant reconsideration by the SHMOs.

8.6.3 Appeals must be submitted to the SHMOs within 30 days from the date of the action being appealed.

8.7 SHMO Appeals

8.7.1 The SHMO may, on behalf of an applicant or the state, appeal any FEMA determination of federal assistance. Local appeals must be submitted in writing through the SHMO.

8.7.2 Applicants must provide sufficient information to allow the SHMO to determine the facts and validity of the request.

8.7.3 The SHMO appeal shall be in writing and submitted to FEMA within 60 days from the date of the action being appealed.

8.8 Sub-Recipient Monitoring and Reporting

8.8.1 The SHMOs will conduct a minimum of 1 desk audit and 1 on-site audit of each project which receives funding under the HMGP. The desk audit will consist of an eligibility review of sub-recipient costs being submitted for reimbursement.

8.8.2 Each on-site audit will consist of a review of the sub-recipient records of project costs and a visit to the project site to determine that the project has been completed as shown in the approved grant application.

8.8.3 Monitoring visits may be documented by completing the DESPP Desk Monitoring Report Form and the DESPP On-Site Monitoring Report Form as appropriate.

8.8.4 The sub-recipient will also submit *quarterly progress reports* to the SHMOs. The due dates for these reports are 30 days after the end of the fiscal quarter during the time that the project is in progress. Within 30 days of the end of the quarter, the SHMOs will submit quarterly progress reports to the FEMA Region I fiscal division showing the expenditures and disbursements to date and the status and completion date for each measure funded. The final progress report should be a complete assessment of project accomplishments.

Quarter	*Progress Report Due Date from Sub-grantee to DESPP*	*Report Due Date from state to FEMA R1*
October 1 – December 31	January 15	January 30
January 1 – March 31	April 15	April 30
April 1 – June 30	July 15	July 30
July 1 – September 30	October 15	October 30

8.9 Cost Overruns

8.9.1 The final cost of approved work may, in some instances, exceed approved cost estimates.

8.9.2 In cases of cost overrun, the Sub-recipient may request approval of additional costs providing justification (invoices, daily activity reports, progress reports, etc.) for evaluation by the SHMOs and FEMA Region 1.

8.9.3 The SHMOs will evaluate each cost overrun and, when justified, and funds are available, may request approval of an additional amount from FEMA Region 1 if it meets the cost/benefit criteria. The Sub-recipient should identify the potential overrun before costs are incurred and in any applicable quarterly reports.

8.10 Project Closeout

8.10.1 When all payments of funds have been made, the SHMOs determines eligible management costs as per the following:

8.10.2 Management costs will be provided to the Sub-recipient at a rate of 1% of the federal share of the actual expenditure of the HMGP award.

8.10.3 Files at DESPP will reflect that closeout has been accomplished and no further disbursements will be made.

9. Plan Review

This administrative plan will be reviewed and revised after each federally declared disaster to ensure compliance with law, implementing regulations and state policies. It will be updated as needed to reflect regulatory or policy changes or to improve program administration. The plan will be submitted to FEMA for approval by the FEMA Regional Administrator.

APPENDIX A: HMGP APPLICATION PROCEDURES

Sub-Applications for the Hazard Mitigation Grant Program must come from the responsible governmental entity (city, town, borough, or Native American tribe), signed by the Chief Executive Officer or the designated representative of the jurisdiction and submitted to the Department of Emergency Services and Public Protection/ Division of Emergency Management and Homeland Security. The address for submitting applications is:

Hazard Mitigation Grant Program
CT Department of Emergency Services and Public Protection
Division of Emergency Management and Homeland Security
25 Sigourney Street, 6th Floor
Hartford, CT 06106
demhs.hmgp@ct.gov

Each sub-application must contain the following information:

This checklist will assist local communities and consultants in developing a complete Hazard Mitigation Grant Program (HMGP) Sub-Application.

Project and plan Sub-Applications submitted for funding under disasters declared after February 27, 2015 shall use *Hazard Mitigation Assistance Guidance: Hazard Mitigation Grant Program, Pre-Disaster Mitigation Program, and Flood Mitigation Assistance Program, February 27, 2015*. FEMA link: https://www.fema.gov/media-library/assets/documents/103279

Note: For Projects (e.g. Property Acquisition, Elevation, Culverts & Wind Mitigation Etc.) please **use Sections 1, 2 and 4 only.**

For Planning (e.g. Local Hazard Mitigation Plan Update) please **use Sections 3 and 4 only.**

Project Sub-Application Task	Page Number location in the Application	State Review	FEMA Review
SECTION 1: PROJECT SUB-APPLICATION			
A. Project location			
B. Description of Existing Conditions			
C. Scope of Work (Project Description)			
D. Project Photographs			
E. Project Maps			
F. Project Drawings			
G. Alternatives			
H. Work Schedule			
J. Project Cost Information			
I. Maintenance Schedule and Associated Cost			
K. Estimated Project Cost Share			
L. Other Funding Agencies			
M. Mitigation Plan Status & Information			
N. Public Notice/Official Newspaper Information			
O. Required Benefit-Cost Analysis (BCA)			
P. Environmental/Historic Preservation Information			
Q. Waterway/Waterbody/Wetlands Information			
R. Floodplain Location			
S. National Flood Insurance Program (NFIP)			
T. General Conditions			
U. Match Funding Certification			
V. Maintenance Agreement			
W. Property Acquisition/Relocation/Elevation Worksheet			
X. Property Acquisition/Relocation/Elevation Certification			

Project Sub-Application Task	Page Number location in the Application	State Review	FEMA Review
Section 2: Property Acquisition/Elevation Projects			
Property Acquisition/Relocation/Elevation Worksheet			
Photographs			
Substantial Damage Letter (If Available)			
Elevation Certificate			
Voluntary Transaction Letter			
Model Deed			
Tax Assessor Card			
Property Acquisition/Relocation/Elevation Certification			
Section 3: Hazard Mitigation Plan (New Plans or Plan Updates)			
Scope of Work (SOW)			
Work Schedule			
Plan Maintenance Schedule and Associated Costs			
Planning Cost Information			
Planning Cost Share (25%)			
Other Funding Agencies (if any)			
Mitigation Plan Status and Information			
Section 4: Grant Conditions and Assurances			
Special Conditions **(Signature Required)**			
General Conditions **(Signature Required)**			
Assurances (**Signature Required**)			
Maintenance Agreement **(Signature Required)**			

Potential sub-applicants must submit a copy of complete, signed applications by the announced deadline. Sub-Applications must be submitted as hard copies signed by applicant (.pdf copies of signed applications are also accepted via email). Sub-Applications postmarked later than the deadline will not be considered.

APPENDIX B: CT INTERAGENCY HAZARD MITIGATION COMMITTEE (CIHMC)

The following State Agencies will be considered and enlisted, when appropriate, to serve on the Connecticut Interagency Hazard Mitigation Committee (CIHMC) whenever necessary to accomplish the purposes of this Plan and review HMGP project applications.

- Department of Administrative Services – Construction Services.
- Department of Emergency Services and Public Protection.
- Department of Energy and Environmental Protection.
- Department of Transportation.
- Office of Policy and Management.
- Department of Education.
- Department of Economic and Community Development.
- State of Connecticut NFIP Coordinator.
- Department of Housing.

The following Federal Agencies will be considered and enlisted, when appropriate, to serve on the Connecticut Interagency Hazard Mitigation Committee (CIHMC) whenever necessary to accomplish the purposes of this Plan and review HMGP project applications.

- Natural Resources Conservation Service (NRCS).
- National Weather Service (NWS).

APPENDIX C: HMGP ENVIRONMENTAL CONSIDERATIONS

Projects funded under the Hazard Mitigation Grant Program must comply with all appropriate environmental requirements. These include the National Environmental Policy Act (NEPA), P.L. -190, as amended; Executive Order 11988, Floodplain Management; Executive Order 12898, Environmental Justice in Minority and Low-Income Populations, and Executive Order 11990, Protection of Wetlands.

The Federal environmental review process requires that a satisfactory environmental analysis be completed prior to any commitment of funds. Projects that have been initiated may not meet environmental requirements, resulting in an otherwise potentially eligible project becoming ineligible.

FEMA will determine the level of environmental review necessary (e.g. environmental and floodplain management review) relative to specific proposed hazard mitigation projects. FEMA will ensure that all required environmental review is performed. FEMA will determine if the individual project is categorically excluded (CATEX) from the need to prepare an environmental and/or floodplain management review.

All other projects must include environmental and/or floodplain management review to aid in the compliance with environmental requirements. Approval to initiate a project will not be granted, nor will any HMGP monies be expended prior to the completion and satisfactory outcome of a required environmental review.

Coordination

The sub-application should identify who was contacted in the development of the project and in the preparation of this environmental analysis. Appropriate agencies for coordination might include:

- Connecticut Department of Energy and Environmental Protection.
- Connecticut State Historic Preservation Office.
- U.S. Environmental Protection Agency.
- U.S. Army Corps of Engineers.
- Natural Resources Conservation Service.

References

References may be required, if appropriate.

The information provided in the environmental document will be analyzed at the FEMA Regional Office to determine if there will be significant environmental or floodplain impacts as a result of the proposed project. If not, then a Finding of No Significant Impact (FONSI) will be prepared, attached to the environmental analysis, now an Environmental Assessment, and approved by the FEMA Regional Office. If significant impacts are anticipated, then the project will be reviewed and revised or an Environmental Impact Statement (EIS) will be prepared.

Appendix 3-2. USDA Forest Service Grant Programs

On an annual basis, the DEEP Division of Forestry administers the following US Forest Service funded grant programs, with funding distributed to applicants through a competitive process:

Urban Forestry

America the Beautiful urban forestry grant program

Fire

Dry Fire Hydrant grant program

Volunteer Fire Assistance grant program

Legacy

Forest Legacy grant program

In addition, the Division of Forestry is currently administering the following individual grants, presented to various recipients and awarded under the US Forest Service's Competitive Allocation (CARP) program:

- Asian Longhorned Beetle Detection Surveys (completed)
- Biomass from Connecticut's Urban Forest (initiated FY 2009)
- Understanding Connecticut Landowner's Attitudes and Objectives (initiated FY 2010)
- A Coordinated Multistate Effort to Detect, Suppress and Prepare for Emerald Ash Borer in the Northern United States (initiated FY 2011)
- Quiet Corner Woodland Partnership (initiated FY 2012)
- Developing a Comprehensive Model for Urban Forestry in the 21st Century (initiated FY 2012)
- Engaging Family Forest Landowners to Promote Forest Health and BioDiversity (initiated FY 2012)
- Legacy Tree Ecosystem Services Planning (initiated FY 2012)
- Reintroduction of Blight Resistant Chestnut Trees to Connecticut's Forests (initiated FY 2012)
- Locally Grown Forest Products (initiated FY 2012)
- Asian Longhorned Beetle Follow-up Zip Code Survey and Second Home Based Survey (initiated FY 2012)
- Assessing the Roles of Climate and Biological Control on Hemlock Stands (initiated FY 2012)
-

Contact Information:

Chris Donnelly
Urban Forestry Coordinator
DEEP Forestry
79 Elm Street
Hartford, CT 06106
(860) 424-3178

Appendix 3-3. Connecticut Natural Disaster Plan 2009

STATE OF CONNECTICUT
NATURAL DISASTER PLAN
2009

Prepared By The
DEPARTMENT OF
EMERGENCY MANAGEMENT AND HOMELAND SECURITY

STATE OF CONNECTICUT

NATURAL DISASTER PLAN

2009

Prepared By The
DEPARTMENT OF
EMERGENCY MANAGEMENT AND HOMELAND SECURITY

TABLE OF CONTENTS

AUTHENTICATION

In accordance with Section 28-5(b), C.G.S., I hereby present the State of Connecticut Natural Disaster Plan 2009. All government agencies, state or local, and all civil preparedness forces in the State shall carry out the duties and functions assigned by the plan, as approved by the Governor. This plan supersedes the Natural Disaster Response Plan promulgated on January 27, 2006.

PRESENTED BY: James M Thomas

James M. Thomas
Commissioner
Department of Emergency Management and Homeland Security

APPROVED BY: M. Jodi Rell

M. JODI RELL
Governor

DATE: February 9, 2009

EXECUTIVE SUMMARY

This Plan establishes the mission assignments of state agencies in responding to natural disasters of a severity and magnitude typical for Connecticut. The Plan also describes the interaction of state government with local governments, private response organizations (e.g., utilities, the American Red Cross) and the federal government in natural disaster situations.

In any type of disaster or emergency, state agencies must first fulfill departmental mandates established by state statutes, regulations or executive orders and then provide support to local authorities as requested, available and appropriate. Exceptions to these priorities are made only in cases of imminent peril to life and health.

The State of Connecticut Natural Disaster Plan is implemented by order of the Governor. Whenever the Governor orders implementation of the Natural Disaster Plan, the State Emergency Management and Homeland Security Commissioner shall activate the State Emergency Operations Center (EOC) and request representation in the State EOC by appropriate state, federal and private response agencies.

The State EOC will monitor disaster response activities statewide and will coordinate the provision of assistance to state and local authorities as necessary and appropriate. The State EOC will maintain communications with the Federal Emergency Management Agency Regional Response Coordination Center (RRCC) in Maynard, Massachusetts. Communications with local authorities will be maintained through the five Emergency Management and Homeland Security Regional Offices located in Bridgeport, Middletown, Colchester, Rocky Hill and Litchfield.

If necessary, the Governor may declare a state of emergency under Section 28-9, C.G.S. and invoke extensive emergency powers which allow the Governor to take any action reasonably necessary in light of the emergency. The Governor's emergency powers include (but are not limited to) taking operational control of all civil preparedness forces and functions in the state, modifying or suspending statutes and regulations, ordering evacuations, removing debris from public and private land or waters, and seizing property.

In 2008, FEMA approved the *State of Connecticut's Disaster Debris Management Plan, September 2008 (Annex to the State's Natural Disaster Plan, 2006).* As part of the approval process, certain criteria had to be met, including the State's establishing pre-event contracts for debris removal operations and for the monitoring of these operations. The Plan identifies the framework for proper management of debris generated by a natural disaster, with the goal of facilitating prompt and efficient recovery that is cost effective, eligible for FEMA reimbursement, and protective of the environment. See Section O – Debris Management for more information. The Disaster Debris Management Plan and the debris management and monitoring contracts are available through the Department of Environmental Protection's website.

This State of Connecticut Natural Disaster Plan 2009 incorporates the policies and procedures presented in the National Response Framework (NRF) and in the National Incident Management System (NIMS). DEMHS Plans and Guides are continually being reviewed and revised to reflect the latest, best practices in emergency management and homeland security, and are in compliance with the NRF and the NIMS.

RECORD OF CHANGES

DATE	CHANGE	ENTERED BY

AUTHORITY, MISSION, HAZARD ANALYSIS, AND ORGANIZATION

1. AUTHORITY:

Title 28, Chapter 517 of the Connecticut General Statutes provides the authority for the State of Connecticut and its political subdivisions to prepare for and respond to natural disasters and other emergencies.

The Robert T. Stafford Emergency Relief and Disaster Assistance Act (PL 93-288, as amended, a.k.a. "The Stafford Act") is the federal legislation that creates a national program for disaster preparedness, response, recovery, and mitigation. Connecticut's emergency management program, developed under the authority of Title 28, complies with the federal program established by the Stafford Act.

There are many federal and state statutes and regulations that have a bearing on emergency management; however, Title 28 and the Stafford Act are the two laws most central to emergency management in Connecticut.

2. MISSION:

The mission of Connecticut's emergency management community (state and local governments and private response and recovery organizations) in times of natural disaster is to:

1) maximize the preservation of life and property;
2) correct or alleviate, as expeditiously as possible, serious disaster or emergency-related conditions which present continued threats to the health or welfare of the residents of the state, and
3) facilitate a return to normalcy by all practical means.

3. HAZARD ANALYSIS

The natural hazards that pose the most likely threats to the State of Connecticut include floods, severe thunderstorms, hurricanes, tornadoes, ice storms, winter storms, blizzards, and coastal storms. Droughts and earthquakes are also possible.

The State Department of Emergency Management and Homeland Security (DEMHS) considers a strong Category 3 hurricane as the most probable, worst-case disaster scenario facing the state.

Historically, the worst disasters to affect the State of Connecticut have been the 1938 hurricane and the 1955 floods. The 1955 floods were caused by the heavy rainfall associated with the remnants of two hurricanes.

4. ORGANIZATION

DEMHS has primary responsibility for development and implementation of the state's emergency management program.

Connecticut is divided into five emergency management Regions. DEMHS Regional Offices are responsible for providing administrative support and planning assistance to local governments in their

jurisdictions. During emergencies, the Regional Offices serve as mutual aid coordinators and communications links between towns and the State Emergency Operations Center (EOC). The staff of the Regional Offices can be augmented during emergencies.

DEMHS Headquarters includes the State EOC, which is the Governor's direction and control center. During emergencies, the State EOC is staffed with representatives of key state and private agencies. The State EOC maintains communications with state departmental EOCs, federal agencies and facilities, private agency EOCs, and the towns and cities of the state through the DEMHS Regional Offices. The Media Center in the State EOC is used as a Joint Information Center (JIC) by federal, state, and private agencies involved in responding to a natural disaster.

Each of the State's 169 political subdivisions has an emergency management director appointed by the local chief executive of the town. Only a few local emergency management directors are full-time, paid directors. The majority of local emergency management directors are part-time directors with no staff support. Most of these part-time directors are volunteers.

All towns and cities have a facility designated as a local EOC (usually located in the town hall, the police station, or a fire station) which serves as the local chief executive's direction and control center. During emergencies local officials maintain communications with the DEMHS Regional Office serving their region.

GENERAL EMERGENCY OPERATIONS CONCEPTS

1. RELATIONSHIP OF GENERAL EMERGENCY OPERATIONS CONCEPTS (GEOCs) TO OTHER PROVISIONS OF THE STATE NATURAL DISASTER PLAN

The following are generally accepted concepts of emergency response operations in the State of Connecticut. These concepts are generally valid in any type of disaster or emergency, except where specific policies or operational procedures set forth in this plan or another emergency operations plan state otherwise.

2. GENERAL EMERGENCY OPERATIONS CONCEPTS (GEOCs)

GEOC-1. Mobilization of forces by the State DEMHS Commissioner. The State Department of Emergency Management and Homeland Security (DEMHS) Commissioner may, under Section 28-5(c) C.G.S., cause the full or partial mobilization of civil preparedness forces in advance of an actual disaster as may be necessary for the prompt and effective operation of any state emergency management (emergency response/emergency operations) plan.

GEOC-2. Governor's Authority to Take Control of Any and All Forces of the State. In the event the Governor declares a state of civil preparedness emergency, pursuant to Section 28-9 C.G.S., he may personally take direct operational control of any or all parts of the civil preparedness forces and functions in the State. The Governor may also take such actions as are reasonably necessary to protect the health, safety and welfare of the people of the state, to prevent or minimize loss or destruction of property, and to minimize the effects of hostile action.

GEOC-3. Distinction between Operational Control and Direction of Emergency Forces. When a local jurisdiction's forces are operationally engaged within its own boundaries, both operational control and direction of emergency forces are retained. When either State or local civil preparedness forces are sent elsewhere, operational control is exercised by the authority at the scene of the operation, but direction is retained by the parent jurisdiction. Conversely, forces sent to the aid of a locality from other State or local jurisdictions, civil or military, come under local operational control, but remain under direction of the parent agency. A distinction is made between (1) "operational control" and (2) "direction" of emergency forces. Operational control consists of the functions of assignments of tasks, designation of objectives and priorities, and such other control necessary to accomplish the mission. Direction of civil preparedness forces is retained at all times by the appropriate civil or military authority and includes the authority to commit to, or withdraw from, emergency operations.

GEOC-4. Mutual Aid as First Means of Assistance. Mutual aid agreements between local governments in effect at the time of the emergency are the first means of obtaining assistance when a city or town's resources are exhausted or nearly exhausted.

GEOC-5. Order of Mobilization for Emergency Forces Supporting Local Officials. City and town governments shall be responsible for all peoples and properties within their boundaries and jurisdictions to the limits of their resources. Emergency operations will be carried out principally by local forces supported by mutual aid, then state forces, and, as available and needed, by military and/or federal forces.

GEOC-6. Local Requests for State Assistance. Requests by local governments for State assistance shall be made through the appropriate DEMHS Regional Office or the DEMHS Headquarters in Hartford if the Regional Office cannot be reached.

GEOC-7. Activation and Use of the Connecticut National Guard. The Connecticut National Guard, State Military Department, if available, may be activated by the Governor to support local and/or state civil preparedness forces. In such event, however, it would complement and not substitute for other state or local forces in emergency operations. Military forces will remain at all times under military command but will support and assist other emergency forces through mission-type assignments to include objectives, priorities, and other information necessary to the accomplishment of the mission.

GEOC-8. Local Government Situation Reports. Local governments are responsible for providing periodic situation reports to the appropriate DEMHS Regional Offices whenever local civil preparedness forces are engaged in emergency operations or are preparing for emergency operations (increased readiness) in anticipation of an actual disaster or emergency.

GEOC-9. State Government Line of Succession. The Constitution of the State of Connecticut, in Article Four (4) and Article One (1), provides the following line of succession of State Government:

The Governor of the State
The Lieutenant Governor of the State
The President Pro Tempore of the Senate

It further provides "in order to ensure continuity in operation of State and local governments in a period of emergency resulting from disaster caused by enemy attack, the general assembly shall provide by law for the prompt and temporary succession to the powers and duties of all public offices, the incumbents of which may become unavailable for carrying on their powers and duties."

GEOC-10. Common Tasks of State Agencies in Emergency Response. All agencies and departments have common tasks as follows:

a) accounting for disaster-related expenditures for equipment, supplies, material and labor utilized by the agency;

b) thorough documentation of agency emergency operations including maintenance of logs at the State Emergency Operations Center (EOC) and departmental EOCs;

c) implementation of plans and procedures to protect inmates, institutionalized persons, and department personnel; and

d) rendering reports to the State EOC as required.

GEOC-11. Responsibility of State Agencies to Perform Missions Not Specifically Assigned. All State agencies and departments not specifically assigned missions in an emergency operations plan will be expected to respond to emergencies, within their respective capabilities, as requested by the Governor or the DEMHS Commissioner or when in their judgment the welfare or safety of the State is threatened.

GEOC-12. Authority of State Agency Heads to Commence Emergency Operations. Department and agency heads, or anyone legally administering their offices, shall activate their departmental standard operating procedures for emergencies by direct order of the Governor, by request of the DEMHS Commissioner, or when in their judgment the welfare or safety of the state is threatened.

GEOC-13. State Agency Heads or Designees To Staff State Emergency Operations Center. Maximum interface of state civil preparedness forces will be achieved through the presence of certain commissioners, department heads or their designees at the State EOC, located in the DEMHS Headquarters.

GEOC-14. Responsibility of Governor in Requesting Federal Assistance. The Governor is responsible for requesting federal emergency relief and disaster assistance on behalf of local governments, businesses, and residents of the state.

GEOC-15. Responsibility of DEMHS Commissioner and Agency Heads to Advise Governor Regarding Emergency Response Actions, Orders and Directives. The DEMHS Commissioner and other department heads are responsible for advising the Governor of emergency response actions and orders appropriate to the emergency situation. The Governor is responsible for issuing orders and giving directives to state agencies and other non-state officials as the situation warrants.

GEOC-16. State To Advise Local Officials of Appropriate Protective Actions. Whenever appropriate, and time and circumstances permit, the State EOC will provide local officials with recommended protective actions for the general public as well as with other recommended actions appropriate to the emergency situation.

STATE AGENCY MISSION ASSIGNMENTS

1. ALL AGENCIES:

In addition to fulfilling the mission assignments listed below, all agencies shall support emergency operations as directed by the Governor's Office or as requested by the Department of Emergency Management and Homeland Security (DEMHS).

2. The DEPARTMENT OF ADMINISTRATIVE SERVICES (DAS) has responsibility for:

a) Staffing the State Emergency Operations Center (EOC) as requested by DEMHS;

b) Facilitating the acquisition of medical and food supplies;

c) Providing vehicles and fuel to state employees with disaster or emergency assignments; and

d) Issuing state contracts for relief supplies, equipment, debris management, and other services as needed.

3. The DEPARTMENT OF AGRICULTURE (DoAG) has responsibility for:

a) Staffing the State Emergency Operations Center (EOC) as requested by DEMHS;

b) Assessing the agricultural impact of any disaster or emergency and providing DEMHS with such written reports as it may require for use in developing requests for Presidential disaster or emergency declarations;

c) Developing for the Governor formal requests for agricultural assistance from the United States Department of Agriculture (USDA);

d) Implementing appropriate controls on shell fisheries affected by a disaster or emergency;

e) Monitoring dairy products for bacteriological contamination and implementing appropriate controls;

f) Coordinating the rescue and care of animals; and

g) Consulting with the DEP, DPH, and appropriate federal agencies with regard to the appropriate disposal methods of animal carcasses in the event of catastrophic animal mortalities.

4. The DEPARTMENT OF BANKING has responsibility for:

a) Ordering closure of state chartered banks and credit unions in emergencies declared by the Governor.

5. The OFFICE OF THE CHIEF MEDICAL EXAMINER (OCME) has responsibility for:

a) Provide information and reports on fatalities caused by the disaster to DEMHS and/or the State EOC as requested; and

b) Coordinate victim identification and mortuary services, as needed.

6. The DEPARTMENT OF CHILDREN AND FAMILIES (DCF) has responsibility for:

a) Staffing the State Emergency Operations Center (EOC) as requested by DEMHS;

b) Documenting agency emergency operations activities and expenses, including those at departmentally-operated emergency staging sites (Hotline, etc.);

c) Assisting the Department of Mental Health and Addiction Services (DMHAS) with crisis counseling;

d) Activating department buildings and facilities as shelters in accordance with pre-existing agreements with local officials;

e) Providing protective and behavioral health services to children and families displaced or otherwise affected by the disaster; and

f) Providing medical support (physicians, pediatricians, psychiatrists and nurses on DCF staff or on contract to DCF) to the Department of Public Health, as requested.

7. The COMPTROLLER has responsibility for:

a) Designing an accounting system for disaster funds to meet federal regulations; and

b) Issuing checks to applicants receiving disaster assistance.

8. The DEPARTMENT OF CONSUMER PROTECTION (DCP) has responsibility for:

a) Staffing the State Emergency Operations Center (EOC) as requested by DEMHS;

b) Inspecting food establishments, warehouses, supply houses, slaughterhouses and processors affected by a disaster and issuing appropriate regulatory orders to ensure consumer safety;

c) Staffing Disaster Recovery Centers (DRCs), Joint Field Offices (JFOs) and Joint Information Centers (JICs) as requested by DEMHS to provide consumer assistance during recovery;

d) Providing such written reports as may be required by DEMHS for use in preparing requests for Presidential disaster or emergency declarations;

e) Assisting the Governor's Office with public information, especially during the recovery phase, to advise disaster victims about dealings with others, including retailers, and contractors and good consumer practices;

f) Providing assistance in obtaining food, bottled water, medical supplies, and pharmaceutical supplies;

g) Assisting in the National Strategic Stockpile;

h) Assisting in the Chempack program;

i) Implementing systems and strategies to protect the maintenance and integrity of the drug supply;

j) Implementing and maintaining the statewide database that assists the "Cities Readiness Initiative" from the Center for Disease Control (CDC) that enables the critical infrastructures and closed Points of Dispensing (PODs) to establish the pre-event inventory requirements of antibiotics; and

k) With regard to the State's contracts for disaster debris management services, ensuring that the portable scales used at temporary debris storage and reduction (TDSR) sites by the State's debris removal contractors have been pre-registered and NTEP- approved.

9. The DEPARTMENT OF CORRECTION (DOC) has responsibility for:

a) Providing transportation assistance, food assistance, laundry assistance, secure staging areas/parking areas, as requested;

b) Activating the food services Memorandum of Understanding with the American Red Cross to support Red Cross feeding activities; and

c) Staffing the State EOC on a 24-hour basis as requested by DEMHS.

10. The COMMISSION ON THE DEAF AND HEARING IMPAIRED has responsibility for:

a) Providing interpreters as requested by the Governor's Office or DEMHS to assist with public information for the deaf and to assist deaf disaster victims in applying for disaster assistance.

11. The DEPARTMENT OF DEVELOPMENTAL SERVICES (DDS) has responsibility for:

a) Staffing the State Emergency Operations Center (EOC) as requested by DEMHS; and

b) Coordinating the use of DDS facilities during a disaster or emergency, as directed by the Governor.

12. The DEPARTMENT OF ECONOMIC AND COMMUNITY DEVELOPMENT (DECD) has responsibility for:

a) Assessing the impact of a disaster or emergency upon businesses, industries and the general economy of the State or affected area and providing DEMHS with such written reports as it may require;

b) Providing qualified personnel to serve on joint Federal/State Preliminary Damage Assessment (PDA) Teams as requested by DEMHS;

c) Staffing Disaster Recovery Centers and the Joint Field Office as requested by DEMHS to provide information and technical assistance to affected businesses and receive applications for financial assistance if available;

d) Implementing the Temporary Housing Plan following Presidentially declared disasters if the State elects to administer this program;

e) Maintaining up-to-date lists of local housing providers (Local Housing Authorities (LHAs), Nonprofits, etc.) and local rental assistance providers for use in locating available housing; and

f) Supporting emergency operations as requested by DEMHS.

13. The DEPARTMENT OF EDUCATION (SDE) has responsibility for:

a) Supporting local government and/or state agency emergency operations in accordance with agreements in effect at the time; and

b) Assisting DMHAS with crisis counseling.

14. The DEPARTMENT OF EMERGENCY MANAGEMENT AND HOMELAND SECURITY (DEMHS) has responsibility for:

a) Ensuring dissemination of warnings to local governments by the State Warning Point (SWP) as per the State Warning Plan;

b) Activating the State EOC and Media Center following consultation with the Governor's Office;

c) Coordinating the establishment and maintenance of communications with affected and/or threatened areas;

d) Monitoring and documenting potential disaster or emergency situations;

e) Coordinating the delivery of assistance to local governments and state agencies as requested and available;

f) Advising the Governor as to necessary actions, including implementation of the Natural Disaster Plan;

g) Assisting the Governor's Office with emergency and non-emergency public information releases;

h) Receiving and evaluating situation reports from local governments, state agencies, utility companies, and private relief organizations;

i) Determining the need for, requesting, and coordinating a Preliminary Damage Assessment (PDA) of the disaster-affected areas in conjunction with the Federal Emergency Management Agency (FEMA);

j) Providing a Public Assistance Officer (PAO) to coordinate and perform state-level administrative functions of the FEMA Public Assistance Program.

k) Drafting, for the Governor's signature, formal requests for Presidential disaster and emergency declarations under the Stafford Act and U.S. Small Business Administration disaster declarations;

l) Determining number and location of Disaster Recovery Centers (DRCs) in conjunction with FEMA;

m) Coordinating the federal/state meeting subsequent to a Presidential declaration;

n) Coordinating state agency staffing of DRCs, Joint Field Offices (JFOs) and Joint Information Centers (JICs);

o) Disseminating emergency data and information to local governments, state, and federal agencies;

p) Documenting DEMHS emergency response activities;

q) Convening meetings, as necessary, of the Connecticut Helps Oversight Council (CHOC) to coordinate state services for disaster victims with the services of private relief organizations and the federal government; and

r) Expediting establishment of special accounts for disaster assistance funds and taking other actions necessary to expedite the availability of disaster assistance funds to local governments and individual disaster victims;

s) Requesting interstate mutual aid assistance under the Emergency Management Assistance Compact (EMAC);

t) Coordinating the activation and deployment of state and federal Urban Search and Rescue Teams;

u) Requesting, through the Department of Motor Vehicles, waivers on the restrictions to hours of operations for commercial drivers, as appropriate; and

v) Administering the state contract for debris management and removal services.

15. The DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) has responsibility for:

a) Activating the DEP EOC and Communications Center as appropriate;

b) Staffing the State EOC on a 24-hour basis as requested by DEMHS;

c) Investigating and advising on the condition of private and municipal dams upon request from the State EOC, and/or the State Police, DEMHS, or local authorities;

d) Disseminating public information, in coordination with the Governor's Office, relative to environmental health hazards and NOAA and National Weather Service flood alert advisories;

e) Monitoring the condition of state-owned dams and advising the State EOC as appropriate;

f) Assessing and coordinating with local officials regarding the clean-up of fuel oil spills in basements

g) Evacuating and securing all DEP-owned land as necessary;

h) Conducting search and rescue operations on DEP-owned land;

i) Assisting with search and rescue operations through the provision of rescue boats and crews;

j) Inspecting municipal water pollution control facilities and advising on protective actions and repairs;

k) Providing technical assistance to local officials regarding the operation and management of dikes, dams, and other water control structures;

l) Providing qualified personnel as requested by DEMHS to serve on joint Federal/State Preliminary Damage Assessment Teams to assess municipal property damage and damage to DEP lands and facilities;

m) Providing technical assistance on the natural resource and environmental conditions for the feasibility of land use for temporary housing sites and mass burials;

n) Providing technical assistance on timber salvage, emergency debris disposal, and open burning; as well as issuance of emergency and temporary authorizations and general permits for the creation and operation of Temporary Debris Storage and Reduction (TDSR) Sites for the management of disaster debris;

o) Providing flood insurance map-readers to staff Disaster Recovery Centers (DRCs), if necessary, following a Presidential declaration of a disaster or emergency;

p) Providing technical assistance to bulk oil terminal operators;

q) Assisting DEMHS and FEMA with the development of 15- and 90-day Hazard Mitigation Reports following a Presidential declaration of disaster or emergency;

r) Assisting DEMHS, FEMA, and the Interagency Hazard Mitigation Team (IHMT) in the development of a 180-day IHMT Report on mitigation strategies following Presidentially declared disasters; channel restoration, clearing, or other emergency work;

s) Requesting emergency funding from appropriate federal agencies (to be determined at the time of the event and from funding sources separate from FEMA, i.e. NRCS) for stream channel restoration, clearing, or other emergency work;

t) Documenting agency emergency response activities, flood warning operations, and recovery actions;

u) Coordinating with the U.S. Army Corps of Engineers (USACE) regarding operation of Corps flood control projects in an emergency, ice jams, and other situations with flooding implications that may require involvement by the Corps;

v) Coordinating with the U.S. Coast Guard (USCG), as appropriate, regarding the USCG's National Strike Team which may be called upon to react to major incidents of oil pollution or hazardous release;

x) Operating the State Automated Flood Warning System;

y) Requesting federal wildfire suppression assistance;

z) Providing technical assistance to state agencies and local authorities regarding the management of disaster debris including the provision of a municipal guidance document for the management of disaster debris and providing public information announcements;

aa) Administering the state contract for Disaster Debris Monitoring Services;

bb) Providing staff technical assistance, as may be necessary, in support of the State's Disaster Debris Removal Contractors;

cc) If requested by DEMHS, assigning a representative (staff from the DEP's Inland Water Resources Division) to the Joint Field Office, when established, to serve as the State Hazard Mitigation Officer; and

dd) Maintaining the capability to respond to an event at the Millstone Power Station to assist Millstone to remain operational and producing power.

16. The COMMISSION ON FIRE PREVENTION AND CONTROL (CFPC) has responsibility for:

a) Staffing the State EOC on a 24-hour basis as requested by DEMHS; and

b) Implementing the Statewide Fire Service Deployment Plan during emergency situations.

17. The GOVERNOR has responsibility for:

a) Directing activation and implementation of the State emergency plan; (NOTE: This is a prerequisite to receiving federal assistance under the Robert T. Stafford Emergency Relief and Disaster Assistance Act, PL 93-288, as amended.)

b) Directing and controlling emergency and non-emergency public information by assigning appropriate personnel to the Media Center in the State EOC and holding press briefings as necessary; *(NOTE: Assignment of public information personnel to the Joint Field Office (JFO) and the Joint Information Center (JIC) will also be necessary if the state receives assistance under the Stafford Act.)*

c) Ordering activation of National Guard units;

d) Declaring civil preparedness emergencies and invoking emergency powers as appropriate under Section 28-9, C.G.S., including but not limited to:

1) ordering the evacuation of stricken or threatened areas and taking such steps as are necessary for the receipt and care of evacuees;

2) ordering into action local civil preparedness mobile support units or other civil preparedness forces;

3) ordering state agencies or instrumentalities to clear wreckage and debris from publicly or privately owned lands and waters;

4) modifying or suspending statutes, regulations or requirements which conflict with the expeditious and efficient execution of civil preparedness functions; and

5) seizing and using real or personal property as the public exigency requires;

e) Declaring driving bans under Section 3-6, C.G.S. or ordering other appropriate actions necessary under Section 3-1, C.G.S;

f) Evaluating the need for federal disaster assistance and directing DEMHS to develop requests for Presidential disaster or emergency declarations or U.S. Small Business Administration disaster declarations as appropriate; executing all such formal requests;

g) Directing the Department of Agriculture to develop formal requests for USDA assistance as appropriate; executing all such formal requests;

h) Inviting FEMA officials into the state during the pre-declaration phase of a disaster to observe disaster-related conditions in the state and to review the situation with state officials;

i) Requesting or authorizing requests by the Adjutant General (TAG) or by the State Coordinating Officer (SCO) for specialized military assistance;

j) Executing the Federal-State Agreement in the event of a Presidential disaster or emergency declaration;

k) Providing public information and, in coordination with DEMHS, American Red Cross (ARC), FEMA, making public appeals for goods and services necessary to effective response and recovery;

l) If appropriate, activating the State of Connecticut/ARC Disaster Relief Cabinet to solicit donations from member companies; and

m) Activating the State contracts for disaster debris management services – for both debris removal and debris monitoring, as a result of an emergency declaration by the Governor.

18. The DEPARTMENT OF HIGHER EDUCATION (DOHE) has responsibility for:

a) Providing shelter, mass feeding, non-surgical medical care, and temporary housing at state colleges, regional community colleges, and the University of Connecticut, depending upon student populations; and

b) Assisting the Department of Agriculture, as requested, with agricultural impact assessments through the University of Connecticut.

19. The DEPARTMENT OF INFORMATION TECHNOLOGY (DOIT) has responsibility for:

a) Staffing the State EOC, JFOs, JICs, and other facilities as requested by DEMHS;

b) Arranging for the prompt installation of telecommunications support in DRCs for the Center Managers, at the State EOC, and at other locations as needed;

c) Arranging for information technology equipment, installation, repair, programming, and troubleshooting, at the State EOC and at other locations as needed and requested;

d) Facilitating the acquisition of communications and information technology equipment and services;

e) Requesting and coordinating activities through the National Communication Service for emergency telecommunications service priority (TSP) and wireless priority services (WPS);

f) Activating the DOIT EOC and Communications Center;

g) Monitoring and reporting on the condition of the state telecommunications infrastructure;

h) Coordinating agency business continuity and information technology disaster recovery plans in conjunction with agencies' staff;

i) Originating public information, in coordination with the Governor's Office, relative to communications, information technology, and the National Communications System; and

j) Providing coordination and support for statewide geospatial information resources through the State Geospatial Council, as needed.

20. The INSURANCE DEPARTMENT has responsibility for:

a) Staffing DRCs, JFOs and JICs as requested by DEMHS to provide advice on insurance matters to disaster victims;

b) Assisting in the determination of insurance coverage and damage assessment as requested by DEMHS through adjusters affiliated with Connecticut insurance companies;

c) Providing written reports as may be required by DEMHS for use in preparing a request for a Presidential disaster or emergency declaration, etc.; and

d) Assisting the Governor's office with public information, especially during the recovery phase, to advise disaster victims about dealings with their insurance companies and the option for mediation of disputed claims (if activated by Insurance Commissioner).

21. The JUDICIAL DEPARTMENT has responsibility for:

a) Providing interpreters as requested by DEMHS to assist with public information and to assist disaster victims in applying for disaster assistance; and

b) Disposing of civil and criminal actions arising out of emergency or disaster situations.

22. The DEPARTMENT OF LABOR (DOL) has responsibility for:

a) Assessing damages to commercial and industrial structures, limited to safety assessment;

b) Evaluating impact of a disaster or emergency on employment and developing and submitting to DEMHS such written reports concerning disaster-caused unemployment as DEMHS may require;

c) Staffing DRCs, JFOs and JICs as requested by DEMHS;

d) Providing administration and operation of unemployment assistance;

e) Soliciting additional manpower to assist in recovery operations as needed; and

f) With regard to the state's contracts for disaster debris management and removal services, approving the Contractors' safety component (Accident Prevention Program) in their Management Plan/Operations Plan prior to the commencement of any field work.

23. The DEPARTMENT OF MENTAL HEALTH AND ADDICTION SERVICES (DMHAS) has responsibility for:

a) Staffing the State Emergency Operations Center (EOC) as requested by DEMHS;

b) Implementing departmental disaster behavioral health protocols, including deployment of Behavioral Health Crisis Response Teams if appropriate; and

c) Determining the need for and preparing applications for federal assistance under the Stafford Act.

24. The MILITARY DEPARTMENT has responsibility for:

a) Activating appropriate National Guard units upon direction of the Governor;

b) Staffing the State EOC on a 24-hour basis as requested by DEMHS;

c) Providing the following support services as directed by the Governor or requested by DEMHS:

1) evacuation assistance;
2) search and rescue operations;
3) anti-looting, access and traffic control, and curfew enforcement (declared emergencies only);
4) transportation of state and federal officials;
5) road and bridge repairs;
6) clearance of debris;
7) emergency communications support;
8) sandbagging operations (providing personnel and equipment);
9) aerial damage assessment during or immediately following the emergency;
10) fire suppression;
11) stream channel clearance;
12) provision of emergency resource equipment (water trailers, generators, etc.) to appropriate state agencies for use and/or distribution as prioritized by the cognizant (i.e., receiving) state agency;
13) provision of shelter support at National Guard Armories;
14) Supporting the transportation of Red Cross equipment (cots);
15) logistical management operations; and
16) deployment of Civil Support Team

d) If possible, pre-positioning personnel, equipment and supplies in anticipation of a disaster's impact;

e) Documenting agency emergency response activities; and

f) Providing written reports on disaster- or emergency-related expenditures and National Guard activities as requested by DEMHS.

25. The DEPARTMENT OF MOTOR VEHICLES (DMV) has responsibility for:

a) Staffing the State EOC upon request of the DEMHS Commissioner or Governor's Office;

b) Assisting other state agencies with the evacuation of institutionalized persons through the limited provision of vehicles and personnel, as requested;

c) Assisting the State Police through the provision of uniformed inspectors to provide traffic control as well as to search for dangerous cargos and/or suspicious drivers of heavy vehicles, as requested; and

d) Providing communications support, including immediately providing digital images for requesting law enforcement agencies and by the dispatching of mobile data terminals for use by any law enforcement agency that loses communications.

26. The OFFICE OF POLICY AND MANAGEMENT (OPM) has responsibility for:

a) Staffing the State EOC upon request of the DEMHS Commissioner or Governor's Office;

b) If necessary, assisting the Governor's Office with emergency and non-emergency public information as directed;

c) Providing information (census data, budget information, etc.) as requested by DEMHS for use in the development of requests for Presidential disaster or emergency declarations;

d) If necessary, assisting FEMA officials in locating an appropriate facility for use as a Joint Field Office (JFO) and Joint Information Center (JIC) and staffing the JFO/JIC;

e) Expediting establishment of special accounts for disaster assistance funds and taking other actions necessary to expedite the availability of disaster assistance funds to local governments and individual disaster victims; and

f) Locating supplies of fuel for emergency vehicles and making recommendations for fuel allocations.

27. The DEPARTMENT OF PUBLIC HEALTH (DPH) has responsibility for:

a) Staffing the State EOC on a 24-hour basis as requested by DEMHS;

b) Providing DEMHS with such written reports as it may require regarding the impact or potential impact of a disaster or emergency upon public health and the healthcare system;

c) Assisting public health and sanitation efforts through the use of state laboratories for micro-bacteriological and chemical analysis;

d) Organizing, operating, and supervising teams for immunization of the general public or selected population groups;

e) Staffing DRCs, JFOs and JICs as requested by DEMHS to answer health-related questions from the public;

f) Assisting the Governor's Office with public information on public health matters including:

1) provision of information on safety of food at nursing homes and at commercial locations such as restaurants and retail markets; and
2) provision of information on cleanup and decontamination.

g) Documenting agency emergency response activities;

h) Activating components of DPH as necessary; including participation in Preliminary Disaster Assessment Teams, as requested;

i) Assisting DEP and local health departments in assessing biological, chemical and radiation risks;

j) Exercising its authority under the Public Health Emergency Response Authority Act in implementing the State of CT Public Health Emergency Response Plan, as appropriate;

k) Administering the Strategic National Stockpile Program;

l) Deploying mobile field hospital as deemed appropriate;

m) Deploying the CT-1 Disaster Medical Assistance Team as appropriate;

n) Monitoring the status of CT's general hospitals and long term care facilities ability to deliver medical care to the public; and

o) Assessing public and private drinking water systems.

28. The DEPARTMENT OF PUBLIC SAFETY (DPS) has responsibility for:

a) Receiving and relaying warnings to local governments as per the State Warning Plan;

b) Staffing the State EOC on a 24-hour basis as requested by DEMHS;

c) Assisting the Governor's Office with emergency and non-emergency public information releases;

d) Controlling access to dangerous or impassable sections of state-maintained and/or state- patrolled roads;

e) Monitoring dams, particularly state dams, as requested by DEP for high water levels and visible signs of loss of structural integrity; notifying appropriate state and local officials;

f) Relaying warnings received from CONVEX (Connecticut Valley Electric Exchange) regarding hydroelectric dam releases and/or possible dam failures to appropriate state and local officials in accordance with specific warning plans for individual dams;

g) Providing aerial assessments;

h) Providing assistance, as requested, to local civil preparedness forces primarily for the purposes of search and rescue, route alerting, anti-looting, traffic control, curfew enforcement, and limiting access to a disaster area;

i) Providing emergency transportation for state and federal officials;

j) Providing emergency communications links through mobile units and the State Police Communications Van;

k) Assisting with victim identification through fingerprint and dental studies;

l) Providing written reports on disaster- or emergency-related expenditures and State Police activities as requested by DEMHS;

m) Activating the State Police EOC as appropriate;

n) Advising the Governor as to necessary actions, particularly regarding the issuance of curfews and the need for National Guard support;

o) Documenting agency emergency response activities; and

p) Coordinating the response of state police forces with local police authorities.

29. The DEPARTMENT OF PUBLIC UTILITY CONTROL (DPUC) has responsibility for:

a) Staffing the State EOC as requested by DEMHS;

b) Coordinating, monitoring and reporting to DEMHS on the restoration, maintenance and operation of utility services;

c) Providing DEMHS with periodic updates on utility company operations and service interruptions throughout the emergency phase;

d) Developing and submitting to DEMHS such written reports as it may require regarding the impact of a natural disaster upon utility operations; and

e) Ensuring that utilities have the resources to mobilize maintenance and repair forces.

30. <u>The DEPARTMENT OF PUBLIC WORKS (DPW) has responsibility for:</u>

a) Assessing the impact of a disaster upon state buildings and developing and submitting to DEMHS such written impact assessment reports as it may require; providing damage assessors as requested by DEMHS to serve on joint federal/state damage assessment teams to assess municipal property damage in selected communities;

b) Approving the leasing of all state property and maintaining an inventory of same;

c) Assisting OPM and/or DEMHS in locating facilities appropriate for use as JFOs and JICs;

d) Activating the DPW Emergency Operations and Communications Center;

e) Staffing the State EOC upon request of the DEMHS Commissioner or the Governor's Office;

f) Implementing building evacuation/shelter-in-place orders at DPW owned and managed facilities as necessary when ordered to do so by the DEMHS Commissioner or the Governor's Office;

g) Providing additional security to DPW owned and managed facilities as necessary;

h) Initiating emergency shut-down/re-start of all DPW owned and managed facilities as necessary;

i) Assisting other State agencies with facilities/security issues as necessary, being certain to document all such emergency response action;

j) At the request of DEMHS Commissioner, providing qualified personnel to participate on one or more Federal/State PDA teams as necessary;

k) If requested by DEMHS, assisting in the selection of a facility for use as a JCO/JIC; and

l) If requested by DEMHS, assisting in the selection of suitable sites to serve as Disaster Recovery Centers.

31. The DEPARTMENT OF SOCIAL SERVICES (DSS) has responsibility for:

a) Staffing the State Emergency Operations Center (EOC) as requested by DEMHS;

b) Assisting FEMA in the implementation of the Individuals and Households Program (IHP) following Presidentially declared disasters or emergencies for which IHP assistance is authorized by FEMA;

c) Implementing plans for the receipt and care of evacuees, as directed by the Governor;

d) Assisting elderly disaster victims in obtaining ongoing agency services including:

1) chore and handyman services;
2) transportation;
3) nutrition assistance;
4) legal aid;
5) ombudsman services;
6) Connecticut Community Care, Inc. assessment services for those at risk of inappropriate institutionalization;
7) Areas Agencies on Aging; and
8) Protective Services for Elders.

e) Assisting elderly disaster victims in applying for state and federal assistance.

32. The DEPARTMENT OF TRANSPORTATION (DOT) has responsibility for:

a) Activating the DOT EOC;

b) Staffing the State EOC on a 24-hour basis as requested by DEMHS;

c) Signing and barricading unsafe or impassable state highways;

d) Closing appropriate rail and airport facilities as a result of damage or other unsafe conditions;

e) Releasing sandbags, other material, and equipment as appropriate from DOT garages as requested by DEMHS and/or the State EOC;

f) Providing CT Transit buses and drivers to assist with the evacuation of persons needing transportation, as requested by the State EOC and/or DEMHS;

g) Providing public information, via the State EOC and in coordination with the Governor's Office, relative to road conditions and closures, flight service, train schedules, and ferry operations;

h) Clearing debris from state-maintained roads;

i) Removing snow and ice from state-maintained roads;

j) Advising the Governor, via the State EOC, on such matters as:

1) the need to declare driving bans;
2) the need for National Guard/Military Department personnel and equipment relative to the repair or protection of transportation facilities; and
3) the need for federal military assistance in snow removal support;

k) Providing support to the U.S. Coast Guard Sector of Long Island Sound and DEP in relation to the closing and subsequent reopening of ports and waterways during or after the occurrence of major natural disasters;

l) Assessing the impact of a disaster or emergency upon state transportation facilities and providing DEMHS and/or the State EOC with such written reports as it may require; providing damage assessors as requested by DEMHS to serve on joint federal/state damage assessment teams to assess municipal property damages in selected towns and cities;

m) Providing assistance to municipalities for the purposes of debris clearance, inspection, repair and/or condemnation of transportation facilities, once departmental priorities have been met; providing support for search and rescue operations;

n) Notifying the State EOC of disruptions or impending disruptions to the transportation system (e.g., road closures, bridge outages, damage to railways, etc.) and rectification of such disruptions;

o) Preparing formal requests for financial assistance from the Federal Highway Administration;

p) Documenting agency emergency response activities; and

q) Providing traffic management assistance through the DOT's two Operation Center resources such Highway Advisory Radio, Changeable Permanent and Portable Variable Message signs and field personnel, as requested by the State EOC and/or DEMHS.

WARNING

1. GENERAL

The State Department of Emergency Management and Homeland Security (DEMHS) maintains a detailed State Warning Plan which delineates a procedure for warning all towns and cities of the state of any impending emergency situation. The major features of the State Warning Plan which relate to natural disasters are discussed below; however, the entire State Warning Plan has not been included herein.

2. STATE WARNING POINTS

There are two State Warning Points. The Primary State Warning Point is located in the Communications Center of the Connecticut State Police (CSP), Department of Public Safety, in Middletown. It is manned continuously by full-time civilian radio dispatchers. The Alternate State Warning Point is located at the DEMHS Headquarters in Hartford. It is manned during normal working days from 8:00 AM to 4:30 PM and whenever the State Emergency Operations Center (EOC) located in DEMHS is activated and operational.

State Warning Points receive weather watches, alerts, advisories and warnings from the National Weather Service via the National Warning System (a dedicated phone system also known by the acronym "NAWAS") and/or the National Weather Service Weather Wire. Weather information is also received at the State Warning Points via the National Oceanographic and Atmospheric Administration (NOAA) VHF radio.

The Primary State Warning Point is responsible for acknowledging receipt of weather watches and warnings received from the National Weather Service and for disseminating such watches and warnings over the National Warning System and the COLLECT (Connecticut On-Line Law Enforcement Communications Teleprocessing) System, a teletype system which reaches approximately 90 local police departments statewide. Dissemination of watches and warnings over NAWAS can be assumed by the State DEMHS, but dissemination of watches and warnings over the COLLECT System can only be done by the CSP Communications Center.

3. LOCAL WARNING POINTS

Dissemination of a weather warning over the NAWAS System (by either the State Warning Point or the Alternate State Warning Point) and over the COLLECT System (by the State Warning Point) triggers a fan-out and relay system which ultimately reaches at least one local official within each town. Several different communications and warning systems are utilized to complete this fan-out including the State Fire Radio System, county fire radio systems and telephone. Many towns and dispatch centers are responsible for relaying warnings to other towns. Specific warning assignments are found in the State Warning Plan.

Local authorities have the responsibility for seeing that weather warnings are adequately disseminated to all emergency services.

4. WARNING OF THE GENERAL PUBLIC

In terms of weather warnings, the warning fan-out described above is only intended to officially notify State and local authorities and/or emergency services of hazardous or potentially hazardous weather conditions. The fan-out does not, in and of itself, ensure that warnings will reach the public.

Warning the public of hazardous or potentially hazardous weather conditions is accomplished in several ways. A common means is for the National Weather Service (NWS) to transmit travelers' advisories, watches, warnings or alerts over the National Weather Service Weather Wire to the wire services (AP, UPI). The wire services then disseminate this information to their subscribers including radio and television stations and newspapers. Information is then made available to the public. Many media organizations subscribe to weather services other than the National Weather Service.

Another method of warning the public is for the National Weather Service or one of the two State Warning Points to transmit a warning message over the State's Emergency Alert System. Most of the State's major radio and television stations are part of this system and broadcast EAS announcements made by the National Weather Service or one of the State's Warning Points in accordance with standing agreements.

In addition, federal guidelines allow the use of civil defense sirens to warn the public of severe weather conditions. Local governments should determine the feasibility of using siren signals in their communities. Local emergency plans should be clear on the use of siren signals in severe weather situations, and any plans to employ these signals should be made known to the residents of the community. Only the steady, non-wavering, 3-minute tone should be used for weather warnings.

Local authorities are also encouraged to develop route alerting procedures utilizing emergency vehicles equipped with public address systems for high hazard areas in their communities (e.g., downstream of dams, along rivers susceptible to flash flooding, coastal flood zones, etc.). Route alerting procedures are especially valuable in communities without fixed sirens.

Finally, weather warnings may reach the general public (and some local officials) directly via NOAA VHF-FM radio. Special weather information is available continuously on stations operated by the National Weather Service Offices located in Albany – 162.550 MHz, Taunton (Boston) – 162.475 MHz, and Brookhaven (NYC, NY) – 162.400 MHz. Severe weather warnings, watches, alerts and advisories are broadcast on these stations. NOAA weather receivers have been purchased by many local governments, schools, businesses, congregate care facilities and individual citizens.

COMMUNICATIONS

1. GENERAL

Telephones shall be the primary means of communication between the various levels of government and between the various state agency headquarters and the State Emergency Operations Center (EOC). Although in many instances alternate means of communication are available and may be used if needed, maximum possible utilization should be made of the telephone system.

Local governments are requested to direct their communications with the State, including requests for assistance, through the appropriate Department of Emergency Management and Homeland Security (DEMHS) Regional Office which will relay the information to the State EOC.

State agencies are requested to channel their communications from district or sector offices to the agency headquarters and from the agency headquarters to the agency representatives in the State EOC. Several state agencies (CSP, DOT, DMV, and DPH) maintain radio base stations in the State EOC. Normal communications channels should be circumvented only in unusual circumstances.

DMV can support law enforcement communications by providing digital images and by dispatching mobile data terminals for use by any law enforcement agency that has lost communications.

DEMHS, the Connecticut State Police (CSP), the Department of Environmental Protection (DEP), and/or the Department of Public Health (DPH) may dispatch their communications vans to the scene of a disaster to allow for rapid and well-coordinated communications between the State EOC and a disaster scene.

2. TELEPHONE OUTAGES

Should the telephone system fail or become overloaded, the DEMHS Regional High Band Radio shall serve as the primary means of back-up communication between the towns and the state. Amateur radio should be used as the secondary back-up.

The DEMHS Regional Office shall be the network control station for towns using High Band or amateur radio to communicate with the state or neighboring communities. Towns are responsible for developing and maintaining the capability to communicate with the DEMHS Regional Office via High Band or amateur radio.

MDV Mobile Satellite Ventures Satphones are available at DPH, all general hospitals, C-MEDs, certain local health districts, DEMHS offices/vehicles, and at the State EOC.

3. COMMUNICATIONS WITH THE FEDERAL GOVERNMENT

DEMHS shall establish and maintain communications with the Federal Emergency Management Agency (FEMA) Regional Response Coordination Center (RRCC) in Maynard, MA and the FEMA

Regional Office in Boston, MA. The primary means of communication shall be commercial telephone, as well as satellite phone, supported by the Federal National Radio System (FNARS).

4. COMMUNICATIONS WITH ELECTRIC UTILITIES

Electric utilities can maintain essential communications with the State EOC during telephone outages through a radio network known as the Utility Emergency Radio Network/Connecticut Valley Electric Exchange (UERN/CONVEX).

5. INTEROPERABILITY COMMUNICATIONS

In the event that a natural disaster results in situations requiring State and local first-responders with incompatible radio systems to communicate in the field, the 800 MHz I-TAC channels should be utilized if necessary. All local first-responder agencies, and the Connecticut State Police, have the ability to communicate on the I-TAC channels. I-TAC channels should be activated and utilized at the command and control level, as outlined in the I-CALL/I-TAC operations and training documents of the Department of Public Safety.

CT DEMHS has received an FCC license for the State Tactical On-Scene Channel System (STOCS). This Interoperable Radio System allows responders to communicate while working at the scene of an incident, using portable radios with a maximum output power of 3 watts. The STOCS system consists of three VHF frequencies, three UHF frequencies and five 800 MHz frequencies.

PUBLIC INFORMATION

1. GENERAL

Direction and control of media liaison activities and public information shall be the responsibility of the Governor's Press Secretary or his designee.

To the greatest extent possible, all state agencies will coordinate disaster public information activities with the Governor's Press Secretary to avoid contradictory, confusing, incomplete or erroneous information being given to the public.

2. MEDIA INQUIRIES

Upon activation of the State Emergency Operations (EOC), the Governor's Press Secretary or his designee shall designate a phone line(s) (preferably within the EOC) for the purpose of media inquiries. All EOC personnel receiving media inquiries shall refer such inquiries to the Governor's Press Secretary or his designee at the designated extension.

3. MEDIA BRIEFINGS

The Governor's Press Secretary shall schedule media briefings in the State EOC Media Center.
Agency heads, EOC desk officers, or other appropriate agency representatives including those of private agencies such as the American Red Cross (ARC), Northeast Utilities (NU), United Illuminating (UI), and SBC Communications (SBC) may be requested to participate in media briefings.

CT-N (Connecticut Network) may be used for live on-air briefings by the Governor during a statewide disaster or emergency. CT-N is available on cable television and on the web. Briefings are taped and re-broadcasted.

4. PRESIDENTIALLY DECLARED DISASTERS AND EMERGENCIES

In the event of a Presidentially declared disaster or emergency the Governor's Press Secretary or his designee shall have the title of State Public Information Officer (PIO) and shall coordinate closely with the FEMA Public Information Officer. When/if FEMA establishes a Joint Information Center (JIC), the State PIO and his staff should operate from the JIC. The JIC is usually co-located with the FEMA-established Joint Field Office (JFO), but could be established at a separate location. Public information in the post-declaration period will focus on disaster assistance programs and procedures for making application to these programs.

5. EMERGENCY PUBLIC INFORMATION

Emergency public information is defined as official instructions given to the general public regarding immediate actions necessary to protect life or health. Emergency public information announcements concerning weather-related events will be made primarily by the National Weather Service (NWS) utilizing the Emergency Alert System (EAS). The EAS utilizes Connecticut-based radio and television

stations working together in voluntary cooperation with government agencies to broadcast emergency public information.

Use of EAS is indicated in the following situations:

1) tornado warnings,
2) severe thunderstorm warnings,
3) dam failures, and
4) just prior to the arrival of gale force or tropical storm force winds associated with a hurricane.

In unusual circumstances, emergency public information announcements may be broadcast over the EAS from the State Warning Point (SWP) (Department of Public Safety (DPS) Midpoint facility in Middletown) or the Alternate State Warning Point (ASWP) (State Emergency Operations Center (EOC) in Hartford). This will occur if:

1) the NWS specifically requests the SWP or ASWP to do so,
2) the SWP or ASWP believes that important additional information needs to be conveyed to the public, or
3) some other unusual circumstance exists that warrants activation of the EAS by the SWP or ASWP.

If the EAS is activated by the SWP or the ASWP, the Governor's Office will be notified prior to activation if practical, or immediately thereafter if not practical, through the established channels.

6. LOCAL EAS ANNOUNCEMENTS

Local officials are strongly encouraged to develop agreements with EAS stations serving their towns so that in time of emergency these stations may be readily accessed and important emergency instructions provided to the public.

Local officials are requested to notify DEMHS of local EAS announcements by contacting the appropriate DEMHS Regional Office or State DEMHS Headquarters. (Notification should be made prior to EAS activation if practical, or immediately after EAS activation if not practical.)

STATE EMERGENCY OPERATIONS CENTER PROCEDURES

1. ACTIVATION

The State Emergency Operations Center (EOC) is located in the State Armory in Hartford. For natural disaster purposes the State EOC will be activated by the Department of Emergency Management and Homeland Security (DEMHS) Commissioner when deemed appropriate after notification and approval of the Governor's Office.

2. STAFFING

The agencies listed below should be prepared to staff the State EOC on a 24-hour basis as requested by the Department of Emergency Management and Homeland Security:

American Red Cross
Civil Air Patrol
Coast Guard
Emergency Management
& Homeland Security
Environmental Protection
FEMA
Governor's Office
Military
Northeast Utilities
Public Health
Public Utilities Control
AT&T
State Police
Transportation
United Illuminating

Other agencies may also be requested to provide EOC staff on a 24-hour basis.

State agencies shall staff the State EOC with at least one "Desk Officer", and such other personnel as are necessary, to operate pre-positioned agency radios and to handle telephonic communications. Desk officers are direct representatives of their corresponding agencies and must have the authority to make decisions on behalf of their agency and to direct and commit agency resources. Ideally, Commissioners, Deputy Commissioners, or other senior agency officials should serve as Desk Officers. If this is not possible, a representative with direct, immediate and constant access to appropriate agency authorities is acceptable.

Desk Officers are requested to remain at their stations during their shifts. If it becomes necessary to leave the desk for a period of time, desk coverage should be arranged for.

3. STATE EOC AND MEDIA CENTER OPERATIONS

A. General

Desk Officers are expected to keep abreast of their respective agency's emergency response activities and to provide updated information on agency operations to the Operations Desk. Desk Officers should utilize appropriate forms provided by DEMHS or make appropriate entries to the EOC computer log.

In addition, a verbal notification to the Operations Desk should be made in matters of critical importance.
Agency departmental operations centers and agency field personnel are required to keep their State EOC personnel fully informed of agency field operations and matters of concern or potential concern to the agency. It is essential that State EOC personnel be kept aware of the nature and location of all disaster-related operations and problems, including potential problems, so that resources may be applied in the most efficient manner. Conversely, it is the duty of the agency Desk Officer in the State EOC to inform appropriate personnel of his agency in the field or at district offices or EOCs of important matters which are learned of first by State EOC personnel.

B. Local Requests For Assistance

Local governments requesting state assistance with emergency-related problems shall normally do so through DEMHS Regional Offices. Requests will be forwarded through DEMHS channels to the Operations Desk for disposition by the Operations Desk Officer. The Operations Desk Officer shall classify the nature of the request and determine the appropriate resource agencies for the mission. The Operations Desk Officer shall confer with the Desk Officers of the resource agencies to determine if the request can be met, and if so, determine the most appropriate course of action. If a request cannot be met, the requesting official shall be so notified through DEMHS channels. If assistance can be provided, the Operations Desk Officer shall instruct an appropriate agency Desk Officer to notify the requesting official and begin coordinating the delivery of assistance.

State agencies will provide assistance as necessary and available, provided local resources have first been committed to the maximum extent possible and state departmental priorities have been met.

In the event that a local government requests and receives assistance directly from a state agency without going through normal DEMHS channels, the State agency providing the assistance shall so inform its Desk Officer in the State EOC. However, local governments are requested to direct requests for assistance to the appropriate DEMHS Regional Office whenever possible.

C. Governor's Briefings

The Operations Desk Officer shall announce the time of agency briefings for the Governor's Office. Agency Desk Officers shall be prepared to provide verbal reports on agency activities to the Governor or his designee.

D. EOC Security

The DEMHS Administrative Officer shall arrange for security on the main entrance to the State EOC. Only personnel assigned to duty in the EOC shall be permitted entrance to the State EOC. Any person who has not been assigned to EOC duty shall be permitted entrance to the State EOC only if expressly authorized by the DEMHS Administrative Officer.

All media personnel shall be directed to the Media Center entrance door.

F. Media Center

Media Center operations shall be supervised by the Governor's Press Secretary or his designee.

The Governor's Press Secretary shall schedule all media briefings in the Media Center and shall arrange for participation by the appropriate state and private agencies. The Governor's Press Secretary shall also coordinate the production and distribution in the Media Center of printed materials relevant to the emergency, and arrange for "background" speakers as appropriate between press briefings.

CT-N (Connecticut Network) may be used for live on-air briefings by the Governor during a statewide disaster or emergency. CT-N is available on cable television and on the web. Briefings are taped and re-broadcasted.

Media representatives in the Media Center shall not be permitted into the operations room except as periodically authorized by the Governor's Press Secretary who shall first consult with the DEMHS Commissioner.

G. Governor's Emergency Communications Team

The Governor's Emergency Communications Team consists of all state agency communications directors and public information officers (PIOs) as well as the Governor's personal Communications Office staff. The Governor's Director of Communications serves as the head of the Communications Team and may designate operational coordination to a member of his/her staff. Additionally, a DEMHS staff person is assigned by the DEMHS Commissioner to serve as the administrative manager and coordinator of the Communications Team, maintaining all contact information, drafting schedules, coordinating team training and assisting the Governor's Office as required.

The purpose of the Governor's Emergency Communications Team is to develop and distribute comprehensive, centralized public information and precautionary instructions to the public on a 24 hour basis during times of crisis. Because of limited individual agency staffing, state PIO assets must be "pooled" to adequately staff and sustain a Joint Information Center.

The authority to activate the Governor's Emergency Communications Team – and to open the Media Center or Joint Information Center – rests with the Office of the Governor, specifically the Governor's Chief of Staff and/or Director of Communications. This authority may be delegated for specific incidents or emergencies to the DEMHS Commissioner.

Normally, the DEMHS Commissioner will make a recommendation to the Governor and/or Chief of Staff as to the need for opening the Media Center or a Joint Information Center (JIC) based on the nature of the disaster or emergency.

Once a decision is made by the Governor's Office to open the Media Center or to establish a JIC and to activate the Communications Team, the Governor's full-time communications staff will initiate calls to active team members using the membership roster to establish initial staffing. Activation of specific team members may be based on their parent agency or particular area of expertise. DEMHS staff will assist the Governor's communications staff in making calls, as necessary.

COASTAL EVACUATIONS

1. BACKGROUND

Between 1987 and 1994, the US Army Corps of Engineers (USACE) conducted a comprehensive hurricane evacuation study for the State of Connecticut. The purpose of the study was to provide state and local emergency managers with realistic data quantifying the major factors involved in hurricane decision-making. The study included state-of-the-art computer modeling of storm surges associated with 533 hypothetical hurricanes of varying intensity, direction and forward speed. The major outputs of the Corps of Engineers study were extensive mapping of inundation and evacuation zones, and a two-volume Technical Data Report which included a shelter analysis and evacuation clearance time estimates. These products were provided to state officials and officials of Connecticut's coastal communities.

The coastal evacuation policies and procedures set forth below were developed based on information provided in the Corps of Engineers hurricane evacuation study.

2. STORM INTENSITY

The National Hurricane Center (NHC) in Coral Gables, Florida has adopted use of the Saffir/Simpson scale to classify hurricanes based on their intensity. The Saffir/Simpson scale divides hurricanes into 5 categories with a category 5 hurricane being the most intense.

During the course of their study, the Corps of Engineers noted that category 1 and 2 hurricanes produced very similar effects upon the Connecticut coast in terms of flooding. The Corps also noted that category 3 and 4 hurricanes produced very similar storm surge flooding conditions. Therefore, for the purposes of simplicity, the Corps of Engineers' study considers only two basic hurricane scenarios for Connecticut, a "weak storm" (category 1 or 2 hurricane) and a "strong storm" (category 3 or 4 hurricane). Category 5 hurricanes are considered a theoretical impossibility as far north as Connecticut.

In addition to hurricanes, other extra-tropical storm systems such as nor'easters can create dangerous conditions along the Connecticut coast which may warrant evacuation of coastal areas. Unlike hurricanes, there is no evacuation guidance developed specifically for extra-tropical storms. However, a strong extra-tropical storm system could produce coastal flooding comparable to a category 1 or 2 hurricane.

3. HURRICANE EVACUATION STUDY FINDINGS

The Corps of Engineers study found that as a general rule in Connecticut it takes 7 hours to complete a coastal evacuation from the time residents receive official notification to evacuate. This 7 hours, referred to as "clearance time," does not represent driving time, but the total amount of time necessary for all residents in the threatened area to leave school or work, assemble at home, secure their residences, pack some basic necessities, determine their evacuation destination and arrive at their destination, whether it be a public shelter, an inland hotel or the home of another family member or friend.

To the 7-hour clearance time must be added an additional 2 hours for dissemination time. Dissemination time represents the amount of time required to notify the public to evacuate, measured from the time of an official decision to recommend (or order) a coastal evacuation. Public notification measures include live press conferences and other notification to the electronic media, as well as door-to-door notification by local emergency services personnel.

Therefore, the total evacuation time required for a coastal evacuation is around 9 hours (7 hours clearance time plus 2 hours dissemination time), measured from the time of the decision to recommend (order) an evacuation to the time that evacuees arrive at their evacuation destinations.

Coastal evacuations should be completed before the arrival of dangerous "pre-landfall hazards" such as gale force winds and flooding of low-lying evacuation routes. This means that evacuation decisions should be made before the leading edge of the storm system (measured as the radius of gale force winds from the eye of the hurricane) is within 9 hours of landfall on the Connecticut coastline. Situations in which gale force winds are predicted to arrive during hours of darkness pose particularly difficult evacuation decision-making problems. In such situations, it may be necessary to make evacuation decisions when the leading edge of the storm system is 12 or more hours away. This will allow the greater part of the evacuation to occur during daylight hours.

4. COASTAL EVACUATION PROCEDURES

1. The State Department of Emergency Management and Homeland Security (DEMHS) will maintain close telephone coordination with the National Hurricane Center (NHC) and with local National Weather Service (NWS) Offices.

2. Based upon strike probability information provided by the NHC, DEMHS (following consultation with the Governor's Office) will notify local officials in coastal communities of the possibility of the state issuing an evacuation recommendation. Information regarding the timing and scope of the state recommendation will be communicated to local officials. No public announcements regarding evacuation of specific localities will be made by the state at this time. Local officials are advised to begin readying public shelters at this time.

3. Based upon additional information provided by the NHC and local NWS Offices, and following consultation with the Governor's Office, DEMHS may issue a general public evacuation recommendation for coastal communities. All evacuation recommendations will be geared to the evacuation zones mapped by the Army Corps of Engineers in the *Connecticut Evacuation Zone Atlas*. An evacuation recommendation may be made by the Governor or by the DEMHS Commissioner and does not require declaration of a state of civil preparedness emergency by the Governor, although such a declaration by the Governor would be highly probable.

If practical, notification of the media will be done by means of a press briefing at the Media Center in the State Emergency Operations Center (EOC) in Hartford.

DEMHS will provide local officials in coastal communities with advance warning of the state recommendation before notification is made to the state media. Public shelters should be activated at this time and be prepared to receive evacuees.

4. In the case of a particularly intense hurricane, the Governor may declare a state of civil preparedness emergency and issue an evacuation order in lieu of a recommendation, pursuant to his emergency powers under Section 28-9, C.G.S.

5. DEMHS will notify appropriate federal, state and private agencies of the state's evacuation recommendation.

6. No evacuation recommendations will be made unless the NHC has issued a hurricane warning which includes the Connecticut coastline.

7. Following an evacuation recommendation or order issued by state authorities, local authorities are requested to immediately begin conducting evacuation operations as recommended (ordered) by the state and in accordance with the evacuation zones delineated in the Corps of Engineers *Evacuation Zone Atlas*.

8. The State of Connecticut will not issue area-specific coastal evacuation recommendations for extra-tropical storm systems. Evacuation decisions for these events will be made by local officials, based on information provided by the NWS.

SITUATION REPORTING

1. LOCAL GOVERNMENTS

Local governments shall submit periodic situation reports to the appropriate Department of Emergency Management and Homeland Security (DEMHS) Regional Office whenever:

1) requested to do so by DEMHS, or
2) emergency operations are undertaken.

Situation reports should be submitted at least once every eight hours until emergency conditions have been brought under control and all of the following conditions are met:

1) local emergency declarations or other emergency orders are lifted;
2) all shelters have been closed;
3) power and phone service is nearing total restoration;
4) roads have been reopened to the extent possible without reconstruction;
5) search and rescue operations have ceased; and
6) the local Emergency Operations center (EOC) has been deactivated.

Situation reports may be telephoned, faxed, e-mailed, or radioed to the appropriate DEMHS Regional Office. Local officials are requested to utilize DEMHS Form 233 (Rev. 5/05), "State of Connecticut Local Government Situation Report." (See copy at end of this section.) If the Regional Office cannot be reached, reports should be submitted directly to the State EOC.

This Situation Report Form has been developed to keep the Governor and the State Emergency Operations Center up to date on the disaster situation in each municipality. It is also the format for initial requests for State assistance. The senior official in charge of the municipal Emergency Operations Center is responsible for ensuring the report is submitted to the appropriate DEMHS Regional Office.

The first Situation Report(s) sent to the DEMHS Regional Offices may be incomplete since a full situation assessment takes time. Whatever information is available should be sent as soon as possible and updates should be sent as emergency conditions change or more information is known. If the Town has not experienced any significant effects in a regional disaster, this fact should also be reported in order to help the State define the geographical area involved.

2. STATE AGENCIES

a) The DEMHS Regional Offices will transmit local government situation reports to the DEMHS Operations Section of the State EOC. The DEMHS Operations Section will provide appropriate situation reports to the FEMA personnel at the State EOC or the Federal Regional Response Coordination Center (RRCC) in Maynard, MA.

b) The Department of Public Health (DPH) will provide the State EOC with information from public and private water companies regarding service interruptions and projected restoration times.

c) The Department of Environmental Protection (DEP) will provide the State EOC with information regarding impacts to municipal water pollution control facilities.

d) The Department of Transportation (DOT) will provide the State EOC with an assessment of disaster impacts upon state transportation facilities, including impacts upon ground, rail and air facilities, ports and harbors, and ferry service.

e) All state agency desk officers staffing the State EOC will solicit information from departmental personnel regarding agency operations and impacts of the disaster or emergency upon departmental facilities.

3. PRIVATE AGENCIES

a) Northeast Utilities (NU) will submit periodic reports on power outages, by town, and projected restoration times to the State EOC. NU reports shall also include the number of tree and line crews (both NU and mutual aid) deployed, standing by, or en route. Such reports will normally be submitted to the NU Desk Officer and passed to the Department of Public Utility Control (DPUC) Desk Officer, or the DEMHS Operations Officer if there is no DPUC Desk Officer at the State EOC.

b) United Illuminating (UI) will submit periodic reports on power outages, by town, and projected restoration times to the State EOC. UI reports shall also include the number of tree and line crews (both UI and mutual aid) deployed, standing by, or en route. Such reports will normally be submitted to the UI Desk Officer and passed to the DPUC Desk Officer, or the DEMHS Operations Officer if there is no DPUC Desk Officer at the State EOC.

c) SBC Communications, Inc. (SBC) will submit periodic reports on telephone outages and projected restoration times to the State EOC. Such reports will normally be submitted to the SBC Desk Officer and passed to the DPUC Desk Officer, or the DEMHS Operations Officer if there is no DPUC Desk Officer at the State EOC.

d) The American Red Cross (ARC) will submit periodic reports regarding the ARC relief operation. Such reports shall include the number of shelters being operated by the ARC, number of shelterees, location and scope of feeding operations, location of service centers and types and amounts of ARC assistance provided at these centers, and other pertinent information concerning ARC operations. Such reports will normally be submitted to the ARC Desk Officer in the State EOC.

e) CTWARN provides status reports to the drinking water section within DPH on the transfer of mutual aid resources in the drinking water industry sector and to the State EOC for wastewater mutual aid activities.

STATE OF CONNECTICUT
LOCAL GOVERNMENT SITUATION REPORT

Department of Emergency Management and Homeland Security
DEMHS Form 233 Revised 123108

TOWN _____ **DEMHS REGION** _____ **REPORT #** _____ **DATE** _____

REPORTED BY _____ **TELEPHONE** _____ **TIME** _____

1. **OVERALL EMERGENCY CONDITION** N/A _____ Minor _____ Significant _____ Major _____
2. **CASUALTIES (provide latest cumulative figures)** Fatalities _____ Injuries _____ Missing _____
3. **EOC ACTIVATION** Closed _____ Partial _____ Full _____
4. **EMERGENCY ORDERS (Emergency Declared, Evacuation Ordered, Driving Ban, Curfew, etc.)**

_____

5. **MUTUAL AID RECEIVED FROM** Police _____ Fire _____ Public Works _____ Medical _____ Other _____

(describe) _____

6. SHELTER STATUS Name/Location	# People	Managed By (Red Cross or Local)	Open/Closed

7. **DAMS/RIVERS STATUS** _____

8. **ROADS/BRIDGES STATUS (Blocked/Washed Out/Flooded/Closed - Give Location)**

_____

9. DAMAGE REPORT Residential	Minor*	Significant*	Major*
Business			
Municipal Bldgs.			
Water Supply			
Sewer Plant			
Debris			
Power Outages			
Telephone Outages			

***Check One - Give numbers under remarks if available**

10. REMARKS

11. **ASSISTANCE REQUESTED**

_____

Name/Title of Contact: _____ **Telephone:** _____

INSTRUCTIONS FOR LOCAL GOVERNMENT SITUATION REPORT FORM

1. Overall Emergency Condition: Check one designation (N/A-not applicable, Minor, Significant, Major as described below:

N/A	**No significant emergency operations underway or necessary.**
Minor	**Only partial EOC activation, if at all; local emergency response forces are involved in emergency operations but the situation is clearly manageable; no mutual aid necessary; no declarations of emergency; physical damage generally minor; only small-scale shelter operations, if any; power/telephone outages expected to be of short duration.**
Significant	**A significant event which fully or almost fully involves local emergency response forces (chief executive, police, fire, public works). A full scale or partial EOC activation is generally associated with this event level. The need for mutual aid or state aid, if there is such a need, is not obvious, although some form of assistance might eventually be needed. A state of emergency is not usually declared. The local emergency response system is strained but not overwhelmed. Some moderate physical damage and power/telephone outages are usually associated with this event level, as are shelter operations.**
Major	**Mutual aid needed; direct state and/or federal support needed to some degree; may be casualties; possibly some search and rescue operations; damage to many homes, businesses and other facilities, with possible destruction of some; restricted areas established; shelter operations ongoing, state of emergency declared, EOC fully activated, widespread power and telephone outages, some areas inaccessible by vehicles.**

2. Casualties: Provide the best estimate of disaster related casualties. Provide latest cumulative figures, not an update from the previous Situation Report.

3. EOC Activation: Indicate if the local EOC is closed, partially activated, or fully activated. Partially Activated means that only a few key agencies are represented in the EOC. Fully activated means that all key agencies are represented in the EOC on a 24-hour a day basis.

4. Emergency Orders: Indicate any emergency orders issued by the Chief Elected Official (State of emergency declared, Evacuation orders, Driving Ban or Curfews in effect, etc.)

5. Mutual Aid Received From: Indicate any mutual aid being received from other towns or cities (not the state).

6. Shelter Status: Indicate all public shelters that are currently open or give time when shelters will open or close; name and location of shelter, the number of people in the shelter, and who is managing the shelter (Red Cross, local Fire Department, etc.).

7. Dams/Rivers Status: List the name of any rivers approaching flood stage or currently flooding. List the name of any dams that are threatened or breached.

8. Roads/Bridges Status: Describe the impact of floodwaters on the local road system or bridges (both state and locally maintained) and the extent to which roads and bridges have been made impassable by downed trees, wires, or other debris.

9. Damage Report: Check one designation. Give numbers under #10 (remarks) if available.

	Minor	Significant	Major
Residential	No significant structural damage. Damages limited to broken glass, shingle loss, basement flooding.	Few if any units severely damaged. Structural damage generally limited to non-living space areas.	Severe structural damage or destruction of many residential units.
Business	No significant structural damage. Damages limited to broken glass, shingles, and/or signs, flooding.	Few (if any) businesses severely damaged or requiring long-term closures.	Severe structural damage or destruction of many businesses.
Municipal Bldgs.	No significant structural damage. Damages limited to broken glass, shingles, and/or signs, flooding.	Damage to one key or several non-critical public buildings. Building use restricted or closed.	Severe structural damage or destruction resulting in loss of building for an extended period of time.
Water Supply	Loss of private wells due to minor power outages.	Temporary loss of a major public water supply due to contamination/ damage to distribution system.	Extensive damage to a public water supply, rendering it unusable for several days or longer.
Sewer Plant	Loss of grinder pumps due to minor power outages	Loss of pump stations due to power outages or damage to system	Extensive damage to a sewer plant or distribution system; total loss of system.
Debris	Debris due to fallen trees or branches, utility poles, (or other debris); manageable by local forces.	Debris significant but manageable by local forces. Some roads temporarily closed.	Numerous roads closed due to significant debris; local forces need assistance.
Power Outages	Individual streets or homes without power.	Up to 50% of the town without electrical power.	Nearly all of the town without electrical power.
Telephone Outages	Individual streets or homes without phones.	Up to 50% of the town without phones.	Nearly all of the town without phones.

10. Remarks: Provide any pertinent information that you feel State Officials should be aware of regarding the situation in the community. Provide figures in #9 (Damage Report), if available.
11. Assistance Requested: Indicate what type of assistance the community requires, if any, and a local point of contact (name/title and telephone) for coordination purposes.

DECLARATIONS AND ORDERS BY FEDERAL, STATE & LOCAL AUTHORITIES

1. LOCAL DECLARATIONS OF EMERGENCY

Local authorities shall promptly notify the State Department of Emergency Management and Homeland Security (DEMHS) (via Regional Offices if possible) of the declaration of a local civil preparedness emergency or disaster emergency by the local chief executive officer. Such notification shall include:

1) the date and time of the declaration;
2) reason for the declaration; and
3) any special powers invoked or to be invoked by the local chief executive;

The DEMHS Commissioner or the DEMHS Operations Officer shall inform the Governor's Office or the Governor's representative in the Emergency Operations Center (EOC) of any emergency declarations by local officials.

Local authorities shall also notify DEMHS when the state of emergency is lifted. The Governor's Office, or the Governor's representative in the State EOC, shall be notified by the DEMHS Commissioner, or Operations Officer, of the lifting of local declarations of emergency.

State agencies shall take local declarations of emergency into consideration when allocating state agency resources.

In addition, local authorities shall notify DEMHS (via the appropriate Regional Office) of any other emergency orders or decrees issued in response to the emergency, including, but not limited to:

1) driving bans,
2) evacuations,
3) curfews, and
4) school closings.

2. DECLARATION OF EMERGENCY BY THE GOVERNOR

The Governor shall declare a state of emergency pursuant to Section 28-9, C.G.S. based upon his evaluation of the situation and the recommendations of the DEMHS Commissioner.

DEMHS shall disseminate word of an emergency declaration to local officials via Regional Offices.

The Governor's Press Secretary shall ensure that the appropriate media organizations are notified of an emergency declaration.

The Governor's emergency powers in a declared emergency are enumerated in Sections 28-6, 28-6a, 28-7f, 28-9, 28-9a, 28-9b, 28-9c, 28-9d, 28-9f, 28-9g, and 28-11, C.G.S. With regard to natural disasters, some of the Governor's most significant powers are:

(1) the power to modify or suspend any statute, regulation or requirement which is in conflict with the efficient and expeditious execution of civil preparedness functions (Section 28-9a);

(2) the power to take direct operational control of any or all parts of the civil preparedness forces and functions in the State (Sections 28-6a and 28-7f);

(3) the power to order into action any or all parts of the civil preparedness forces (State or local) of the State (Section 28-9b);

(4) the power to order the evacuation of all or part of the population of stricken or threatened areas and to take such steps as are necessary for the receipt and care of such evacuees (Section 28-9f);

(5) the power to take any other steps as are reasonably necessary to protect the health, safety, and welfare of the people of the State, or to prevent or minimize loss or destruction of property (Section 28-9g);

(6) the power to acquire temporary housing units and to assist any political subdivision in acquiring and preparing sites for temporary housing units (Section 28-9a);

(7) the power to designate such vehicles and persons as shall be permitted to move and the routes which they shall follow (Section 28-9d).

With regard to item (1) above, all state agencies are requested to notify DEMHS whenever a need arises to have certain statutes, regulations or requirements modified or suspended in order to efficiently and expeditiously execute the agency's civil preparedness mission. Such notification shall be an indication of the need for an emergency declaration by the Governor.

3. AUTHORITY OF GOVERNOR TO DECLARE DRIVING BAN

A. Statutory Reference:

The Governor may issue an order pursuant to Sections 3-1 and 3-6a, C.G.S. declaring a driving ban for some or all of the highways and streets in the State without declaring a civil preparedness emergency pursuant to Section 28-9, C.G.S.

Section 3-6a, C.G.S. reads as follows:

"Section 3-6a. Power of Governor to restrict use of streets and highways during extreme weather conditions.

(a) Whenever an emergency situation exists because of extreme weather conditions or other acts of nature, other than as is provided in Section 28-9, requiring the restriction of movement of persons and vehicles upon the streets and highways of the state, the Governor may issue an order pursuant to Section 3-1 designating the persons and vehicles which shall be permitted to move and the routes which they shall follow.

(b) Violation of an order issued pursuant to subsection (a) of this section shall be an infraction."

Section 3-1, C.G.S. reads as follows:

> "Section 3-1. General powers and duties. The supreme executive power of the state shall be vested in the Governor. He may, personally or through any authorized agent, investigate into, and take any proper action concerning, any matter involving the enforcement of the laws of the state and the protection of its citizens. He may appoint any officer of the state whose office is provided for by law but for whose appointment no other provision is made by the constitution or the statutes. He may demand in writing from any officer, department, board, commission, council or other agency of the state a report on any matter relating to the official duties of such agencies."

B. Procedures

The Commissioner of the State Department of Transportation (DOT), in consultation with the Commissioner of Public Safety, shall be responsible for advising and recommending such driving bans to the Governor. The DOT Commissioner shall inform the DEMHS Commissioner of his recommendation to the Governor.

DEMHS shall notify local officials of the Governor's decision to implement a driving ban via the DEMHS Regional Offices.

The Governor's Press Secretary or his designee shall ensure dissemination of driving ban orders to the appropriate media organizations.

4. U.S. COAST GUARD

The U.S. Coast Guard Sector of Long Island Sound has the authority to close and reopen ports and waterways before, during, and/or after the occurrence of major natural disasters. In the event a waterway or port should become unsafe for normal transit, the Coast Guard may deem it necessary to secure or restrict movement of any or all vessels in or on that waterway or port.

SHELTERS

1. GENERAL

The identification, activation and operation of public shelters in response to a disaster or emergency is primarily the responsibility of local officials working in conjunction with their local American Red Cross (ARC) Chapters.

In natural disaster situations involving evacuations from a threatened area (e.g., coastal flood zone or riverine flood zone) prior to disaster impact, only a small percentage of those evacuated will require sheltering; the majority will find accommodations with family or friends. It has been the experience of the ARC that not more than 25% of evacuees require public shelter, and in most cases the percentage is much smaller.

The *Connecticut Hurricane Evacuation Study* estimates that a Category 1 or 2 hurricane would require sheltering of approximately 30,000 people in coastal communities and that a Category 3 or 4 hurricane would require sheltering of approximately 50,000 shoreline residents.

2. IDENTIFICATION OF SHELTERS

Identification of suitable shelter facilities is the responsibility of local officials working in conjunction with the ARC. Shelter facilities should be selected based on criteria established in ARC's 'Disaster Program Guidance, Sheltering Handbook', ARC 4496, 'Criteria for Selection of Hurricane Evacuation Shelter' and ARC 6564, 'Shelter Facility Survey."' Shelter facilities should be surveyed by a structural engineer and certified as capable of withstanding wind loads according to ASCE 7-88 (American Society of Civil Engineers) or ANSI A58 (American National Standards Institute) (1982) structural design criteria.

Shelters should be located outside riverine and coastal inundation areas shown on Flood Insurance Rate Maps (FIRM) and coastal storm surge areas depicted in the *Connecticut Hurricane Evacuation Study, Inundation Map Atlas*. Whenever possible, shelters should also be located outside the evacuation areas mapped in the *Hurricane Evacuation Study, Evacuation Map Atlas*.

In order to meet shelter demands, officials in coastal communities may need to utilize facilities which do not meet all ARC criteria in terms of sleeping space, eating facilities, emergency power generation, cooking facilities, handicapped access, etc. These shelter facilities, if needed, will not be operated by ARC personnel. Such facilities are intended as short-term "storm shelters," used solely for the purpose of providing a short-term safe-haven for evacuees from threatened areas. These facilities should not be utilized for long-term shelter operations. Such "storm shelters" should meet the wind load criteria of ASCE 7-88 or ANSI A58 (1982) structural design criteria and should be located outside areas vulnerable to flooding as mapped on the FIRMs and the *Connecticut Hurricane Evacuation Study Inundation Atlas and Evacuation Zone Atlas.*

3. SHELTER OPERATIONS

Local officials may request that state facilities within their jurisdiction be activated for use as public shelters in accordance with pre-existing agreements between local officials and the appropriate state agency.

Local officials are requested to inform the State Emergency Operations Center (EOC) through the appropriate DEMHS Regional Office, of the names of all facilities activated for use as shelters, the number of persons sheltered, and the times at which individual shelters cease operations.

PUBLIC HEALTH/MEDICAL

1. GENERAL

Most natural disasters will not cause casualties in numbers sufficient to exceed the capacity of normal emergency medical service operations. Nevertheless, tornadoes and earthquakes both have mass casualty potential, possibly requiring augmented emergency medical operations.

Natural disasters can pose serious public health problems as a result of such things as floodwater contamination, lack of refrigeration, lack of sanitation and potable water, disruption of pharmaceutical operations, and vector (disease producing organism) proliferation.

2. MASS CASUALTY INCIDENTS (MCI)

A. Local Emergency Medical Services (EMS) Operations

Local emergency medical services shall respond to the scene of a mass casualty incident in accordance with established protocols of the local EMS organization for mass casualty response. Mass casualty operations should be conducted in accordance with the CT DPH EMS Mobilization Plan.

B. American Red Cross

The Red Cross may engage in a number of activities to assist victims, survivors, families of victims or survivors, emergency workers or others. These services include but are not limited to: shelter, food, basic first aid, and mental health services.

During Aviation Disasters: Under the provisions of the Aviation Disaster Family Assistance Act of 1996 (P.L. 104-264), airlines, the National Transportation Safety Board (NTSB), and a "designated independent nonprofit organization" were given specific responsibilities with regard to coordinating the emotional care and support of the families of passengers involved in aviation disasters. The NTSB, as part of its Federal Family Assistance Plan for Aviation Disasters, has designated the Red Cross as the organization responsible for Family Care and Mental Health. The Red Cross has accepted this role and has specially trained staff on call on its "Critical Response Team" (CRT) who initiate support within hours of a request from the NTSB for services.

3. PUBLIC HEALTH ISSUES

The State DPH will provide technical advice and assistance to local health officials regarding public health threats and issues, and assist in the coordination of healthcare.

DPH will also provide information for the general public regarding measures and precautions to minimize threats to health. Public information should be coordinated through the Governor's Press Secretary, or his designee, who shall be called the State Public Information Officer (PIO).

DPH may exercise its authorities under the Public Health Emergency Response Authority Act and as detailed in the State of CT Public Health Emergency Response Plan.

The Department of Children and Families (DCF) may provide medical support staff to DPH, as requested.

SEARCH AND RESCUE

1. BASIC AREAS OF RESPONSIBILITY

Search and rescue operations are primarily the responsibility of local emergency services personnel.

State agencies including the Department of Emergency Management and Homeland Security, Connecticut State Police, National Guard, Environmental Protection, and Transportation have personnel and equipment capable of supporting local search and rescue operations if necessary.

In addition, the U.S. Coast Guard is well suited to perform search and rescue operations. Coast Guard resources are especially capable of performing rescue operations in areas subject to coastal flooding.

The Civil Air Patrol (CAP) may be utilized to coordinate air and ground search operations. CAP assistance is contingent upon a mission authorization number being granted to the Connecticut Wing of the CAP by the U.S. Air Force at the request of the CAP or the State Department of Emergency Management and Homeland Security (DEMHS) Commissioner.

2. PREPOSITIONING OF SEARCH AND RESCUE ASSETS

In situations involving impending hurricanes or other coastal storms, the State Emergency Operations Center (EOC) may consider pre-positioning resources and allocating resources based upon availability, predicted point of landfall, predicted surge elevations at various points along the coast, availability of local resources, and degree of compliance with local evacuation orders.

3. OPERATIONS

If search and rescue assistance is needed, local emergency services shall first invoke any mutual aid agreements in effect with emergency service agencies of neighboring communities. If mutual aid is insufficient, unavailable, or inappropriate given the particular circumstances at hand, local authorities may request assistance from other appropriate sources including the U.S. Coast Guard or the State EOC.

The State EOC can also be reached via the State Fire Radio Network (46.16 MHz) or amateur radio (145.11 MHz, voice; 145.03 MHz, packet radio).

Towns which have DEMHS High Band radio may also contact the DEMHS Regional Offices on the appropriate frequency listed below:

Region 1 - 153.755 MHz
Region 2 - 153.800 MHz
Region 3 - 153.935 MHz
Region 4 - 153.965 MHz
Region 5 - 153.740 MHz

4. U.S. COAST GUARD OPERATIONS

The U.S. Coast Guard operates two Small Boat Stations in Connecticut, in New London and New Haven. These stations conduct search and rescue missions on Long Island Sound and any adjacent navigable waters.

In cases of imminent peril to life, where Coast Guard resources are required, local authorities should contact the Duty Officer at Group Long Island Sound in New Haven at one of the following numbers:

1) 203-468-4401
2) 203-468-4404
3) 203-468-4498
4) 800-774-8724

If telephone service has been interrupted, the Coast Guard continuously monitors VHF radio signals on Channel 16.

5. CT Urban Search and Rescue (USAR)

Connecticut Task Force 1 (CT-TF-1) has been established within the Department of Emergency Management and Homeland Security, as the state's Urban Search & Rescue Team. CT-TF-1 is made up of appointed volunteer members whose mission is to provide a coordinated effort of personnel and resources to locate, extricate, and provide immediate medical treatment to victims trapped within collapsed structures. The USAR Team is based out of Brainerd Airport.

MASS CARE

1. GENERAL

Mass care is defined as those resources and measures necessary to provide disaster victims with sleeping accommodations, prepared food, and emergency first aid. Mass care facilities provide some or all of these services. A shelter facility is a mass care facility, but a mass care facility is not necessarily a shelter.

It is the responsibility of local officials working in conjunction with their American Red Cross (ARC) Chapters and other appropriate local organizations such as church groups to develop a system for providing mass care services.

2. MASS CARE OPERATIONS

Local officials are requested to notify the State Emergency Operations Center (EOC), through the appropriate Department of Emergency Management and Homeland Security (DEMHS) Regional Office, of mass care facilities activated in response to a disaster or emergency and the types of services being offered at each facility.

If additional resources to support mass care operations are required at the local level, and the Area ARC Chapter advises local officials that additional ARC resources are not readily available through the state level or national level ARC organizations, or through existing ARC agreements with the State Department of Administrative Services, Food Distribution Program, then a request for mass care assistance should be made by local officials to the State EOC, through the appropriate DEMHS Regional Office.

Local Red Cross Chapters may also request additional resources via the State Coordinating Chapter of the Red Cross, which may relay these needs to the State via the ARC liaison at the State EOC.

The Connecticut National Guard may be requested by DEMHS to provide mass care assistance in support of local government/ARC mass care operations.

Every community should consider working with other towns and the Red Cross for a more efficient response to sheltering needs. The possibility of designating regional shelters should be explored.

Additionally, DEMHS has recently executed a Memorandum of Understanding with the Connecticut University System for Temporary Shelter Facilities at Central CT, Eastern CT, Southern CT, and Western CT State University campuses.

DEBRIS MANAGEMENT

1. GENERAL

Debris management operations necessitated by a natural disaster can be very expensive and last for several months. In a catastrophic disaster, debris management operations could conceivably last for more than a year. The State has identified a Category 3 hurricane as the most probable, worst case scenario facing the State. The State has projected that the amount of debris that could be generated by such an event could range from 5.5 million tons to 20 million tons. To put this amount in perspective, in Connecticut, the quantity of solid waste (municipal solid waste and construction and demolition debris) normally processed and disposed annually is 5 million tons.

In 2008, FEMA approved the *State of Connecticut's Disaster Debris Management Plan, September 2008 (Annex to the State's Natural Disaster Plan, 2006).* As part of the approval process, certain criteria had to be met, including the State's establishing pre-event contracts for debris removal operations and for the monitoring of these operations. The Plan identifies the framework for proper management of debris generated by a natural disaster, with the goal of facilitating prompt and efficient recovery that is cost effective, eligible for FEMA reimbursement, and protective of the environment. These State contracts were executed in June and August 2008 respectively. These are pre-need and pre-event contracts that can assist the State in disaster debris recovery operations in response to a catastrophic event. These contracts also assure the immediate availability of coordinated debris removal support following a debris-producing incident. These contracts will be used on an as needed basis. These contracts will be activated only by the Governor as the result of an emergency declaration under Title 28 of the Connecticut General Statutes and a Presidential major disaster or emergency declaration under the Stafford Act. The contracts will be administered at the sole discretion of the State. Municipalities may request, through DEMHS, that the State take the lead in debris clean-up operations within their town boundaries. If the State does assume the lead, then the state will direct its contractors and the state will seek reimbursement of FEMA Public Assistance Funding. (The Disaster Debris Management Plan and the debris management and monitoring contracts may be viewed on the Department of Environmental Protection's website.)

Local officials are urged to closely monitor statements of federal and state officials regarding eligibility for reimbursement for debris management operations, and to adopt debris management policies and strategies that will maximize eligibility for federal or state assistance.

However, in no case should essential debris removal operations to open roads, or otherwise protect public safety, be delayed pending clarification of eligibility for state or federal assistance.

2. BASIC AREAS OF RESPONSIBILITY

A. Local governments are responsible for the removal of debris from municipally owned lands and waters. Local governments are encouraged to develop debris management plans including identification of Temporary Debris Storage and Reduction (TDSR) sites and potential open-burning sites within their respective communities. Each municipality should identify labor and heavy equipment resources

available for debris removal, and designate a command structure for debris removal operations. To assure rapid response, it is prudent for municipalities to have in-place short-term Time and Materials Contracts limited to 70 hours of actual work (in compliance with FEMA guidance). After that point, longer term contracts must be competitively bid on a unit price basis. Should the municipality exhaust its resources or become overwhelmed in its capacity to respond to a catastrophic event, the municipality may request the State to assume the responsibility to remove the debris from within its boundaries. The State will respond to municipal requests to the extent State resources are available.

B. State government is responsible for rapid and efficient response to a disaster, including recovery activities. There are a number of key state agencies that are responsible for some aspect of disaster debris management. These include:

1) DEMHS is responsible for coordinating emergency response during major natural disasters including the management and direction of State resources. This agency is responsible for the oversight of the State's debris removal contracts, when activated by the Governor.

2) DOT is responsible for clearing and/or removing wreckage and debris from state owned or maintained transportation facilities. The State DOT may also provide support of local debris management operations as directed by the Governor.

3) DEP is responsible for removing debris from all DEP-owned lands and providing technical assistance to state and local officials on the proper disposal of debris; making determinations regarding open-burning waivers; issuing Emergency Authorizations and Temporary Authorizations for solid waste management resulting from a natural disaster event; and is responsible for the oversight of the State's debris monitoring contract. The DEP will work with DOT and DEMHS in providing technical assistance and guidance (in accordance with the State Debris Management Plan) on the removal and disposal of debris from state-owned roads and highways.

4) Connecticut National Guard (CTNG) may serve as a support agency for debris management and assist other state or local debris management forces as directed by the Governor. Enlistment of National Guard forces to assist with debris management operations will be coordinated through DEMHS.

5) DAS, DPW, DPS and DOL will all play a role in the implementation of the State's debris removal and debris monitoring contracts.

3. LOCAL DEBRIS MANAGEMENT POLICIES REGARDING DEBRIS ON PRIVATE PROPERTY

As soon as possible following a disaster, or even preceding a disaster if there is sufficient warning time, local officials should communicate local debris management policy to all residents of the community. It is highly advisable that the debris management policy as it pertains to private property and local residents be put in writing, as this may become important with regard to eligibility for federal and state reimbursements at a later date. In addition, debris management policies must be applied uniformly to all residents of the community for the municipality to be eligible for any subsequent federal or state reimbursements.

Local debris management policy must be clear on such matters as types of debris (if any) that may be brought to the public right-of-way for pickup by local forces or contractors working for local government, whether local forces will remove debris from private lands and waters, access to temporary debris staging areas by residents, and other pertinent aspects of debris removal. Local policies can be amended as the situation warrants.

If a local government elects to clear and remove debris and wreckage from privately owned lands and waters, appropriate written authorizations from landowners should first be obtained. (See Sample Authorization included in this section.) In most cases, neither the federal government nor the state will reimburse local governments for the cost of debris removal from private property. Private landowners are generally held responsible for bringing debris to the public right-of-way for pickup by local government forces or debris haulers under contract to the local government. However, in some cases, the Federal Emergency Management Agency (FEMA) may offer funding to state and local governments willing to perform debris removal on private property. In such cases, the state and FEMA will require written authorizations from landowners.

In developing local policies for removal of debris associated with private property, local officials are advised that insurance carriers are required to pay for the removal of certain types of debris from private property such as trees on insured structures and material from damaged structures. Towns removing disaster-generated debris from private property (as opposed to curbside pickup from the public right-of-way) must attempt to recover any insurance proceeds received by private property owners and must forward all recovered proceeds to FEMA.

Also, building contractors performing repairs or reconstruction of buildings and structures should be held responsible for disposing of scrap building materials and should not be allowed to place such materials on the public right-of-way for pickup by local, state or federal government agencies or their agents.

4. RESPONSIBILITY OF LOCAL OFFICIALS TO MONITOR DEBRIS MANAGEMENT OPERATIONS

To maximize potential federal reimbursements for debris management costs, it is essential that local officials monitor and document the movement of debris by local forces and contractors in terms of the load sizes, types, and quantities and equipment and personnel involved. The town should appoint a local official to monitor debris removal contractors. After the emergency phase of the debris management operations (generally one to two weeks after the incident), the town should sign a competitively bid written contract with all debris removal contractors.

Local officials may be required by FEMA or the State to explain local procedures for validating contractor invoices and other costs associated with the removal of disaster-deposited debris. Inadequate monitoring of debris removal operations, particularly by contractors, could result in loss of, or reduction of, federal and state disaster assistance funds in cases where, for example, FEMA or the State Public Assistance Coordinator (PAC) determine that contractor invoices are excessively high and that local monitoring of contractors was inadequate to guard against inappropriate billings by contractors.

5. FEDERAL/STATE SUPPORT OF LOCAL DEBRIS MANAGEMENT OPERATIONS

If assistance with the removal of debris from municipal lands and waters is needed, local governments shall first invoke any mutual aid agreements in effect with neighboring communities.

If mutual aid is insufficient to meet the need, local chief executives may request support via the DEMHS Regional Office. Requests should be made as part of a Local Government Situation Report (See form in Section I, pages I-3 and I-4.) and should indicate numbers and types of equipment needed as well as requirements for manpower (skilled and unskilled labor). Local requests for debris removal assistance will be relayed by the DEMHS Regional Office to the State Emergency Operations Center (EOC) Operations Desk. If possible, a properly authenticated, unconditional authorization for removal of debris should be immediately faxed to the State EOC. (See Sample Authorizations on pages O-5 and O-6.) Otherwise, such authorization must be presented before state forces or agents of the state will assist with emergency debris removal.

If possible and appropriate, the state will provide emergency debris management assistance in one of the following ways:

a) The State DOT, National Guard, DEP or state contract forces (that is, the State's stand-by contract for both debris removal and debris monitoring services), will, to the extent available, support local operations in a catastrophic natural disaster should the municipality find itself not able to effectively manage debris removal or is overwhelmed. State forces so employed will be under the operational control of the State. The state will be named Public Assistance Applicant for Federal assistance in all cases unless otherwise directed by the Governor in a State declared emergency. However, direction of state forces (i.e., authority to commit or withdraw from operations) shall at all times be retained by the appropriate state agency authority, civil or military.

b) The DEMHS Commissioner or the Governor may order civil preparedness forces of another town to assist with emergency debris removal as authorized by Sections 28-7(f), 28-8(a) and 28-9, C.G.S. The State shall reimburse towns rendering aid under these Sections.

c) The DEMHS Commissioner or the Governor may request direct federal assistance through FEMA from the Department of Defense in a Presidentially declared disaster or emergency or in an event which is likely to result in a Presidential declaration of a disaster or emergency. Local units of government requesting federal debris removal support will be required to sign an unconditional authorization for debris removal.

d) Private agency resources may be solicited as described in Section 6, below.

6. OTHER DEBRIS MANAGEMENT SUPPORT

A. The Mennonite Disaster Service can provide unskilled labor to assist in the removal of debris, but usually in Presidentially declared disasters only. The Red Cross will solicit Mennonite assistance at the request of the Governor, the DEMHS Commissioner, or local authorities. Mennonite services are primarily intended to assist the elderly, the infirm, and the handicapped.

B. The Connecticut Construction Industries Association, Inc. (CCIA) may provide personnel and equipment through various construction companies. A maximum effort will come on the call of the Governor when the Governor has declared a civil preparedness emergency or disaster emergency. In undeclared situations either the Governor or the State DEMHS Commissioner may request CCIA assistance. CCIA will respond with equipment and manpower as available.

7. STATUTORY REFERENCE - SECTION 28-9(c) C.G.S.

"Sec. 28-9c. Removal of debris or wreckage. Governor's powers illuminated.

(a) Whenever the Governor has declared a disaster emergency to exist under the laws of this State, or the President, at the request of the Governor, has declared a major disaster or emergency to exist in this state, the Governor is authorized: (1) Notwithstanding any other provision of law, through the use of state departments or agencies, or the use of any of the state's instrumentalities, to clear or remove from publicly or privately owned land or water, debris and wreckage which may threaten public health or safety, or public or private property; (2) to accept funds from the federal government and utilize such funds to make grants to any political subdivision for the purpose of removing debris or wreckage from publicly or privately owned land or water.

(b) (1) Authority under this section shall not be exercised unless the affected political subdivision, corporation, organization or individual owning such property shall first present an unconditional authorization for removal of such debris or wreckage from public and private property and, in the case of removal of debris or wreckage from private property, shall first agree to indemnify the state against any claim arising from such removal; (2) whenever the Governor provides for clearance of debris or wreckage pursuant to subsection (a), employees of the designated state agencies or individuals appointed by the state are authorized to enter upon private land or water and perform any tasks necessary to the removal or clearance operation."

SAMPLE AUTHORIZATION (PRIVATE OWNER)

Pursuant to Section 28-9c of the Connecticut General Statutes and 42 U.S.C., Section 5173, I, _____, we, _____, the owner(s) of the property known and identified as _(number and street)_, ___(city or town)___, ___(county)___, State of Connecticut, do hereby grant and give freely, and without any coercion whatsoever, the right of access, entry and use of the aforesaid property to the Town/City of _____, the State of Connecticut and the United States Government, their departments, agencies, instrumentalities, contractors and subcontractors for the purpose of clearing and removing from said property any disaster-related debris and wreckage that the Town/City of , the State of Connecticut or the United States Government determines may threaten public health or safety and/or public or private property.

IT IS FULLY UNDERSTOOD THAT THIS AUTHORIZATION DOES NOT OBLIGATE THE TOWN/CITY OF _____, THE STATE OF CONNECTICUT OR THE UNITED STATES GOVERNMENT TO PERFORM ANY OF THE ABOVE-DESCRIBED WORK.

I, we, release and agree to indemnify and hold harmless the Town/City of _____, the State of Connecticut and the United States Government, their departments, agencies, instrumentalities, contractors and subcontractors for any damages or claims of any type whatsoever, either to the above-described property or persons situated thereon, and, hereby release, discharge and waive any and all action, either legal or equitable, which might arise out of any such use or activity on the above-described property.

I, we, agree to report to the Town/City of _____, the Department of Emergency Management and Homeland Security of the State of Connecticut and the Federal Emergency Management Agency of the United States Government any insurance settlements or other funds obtained from any other source for the removal of debris and wreckage from the above-described property performed at the expense of the Town/City of _____, the State of Connecticut or the United States Government.

Date:

_____ _____
Witness Owner

_____ _____
Witness Owner

_____
Current Address

_____
Town/City, State

_____
Telephone

SAMPLE AUTHORIZATION (TOWN)

Pursuant to Section 28-9c of the Connecticut General Statutes and 42 U.S.C., Section 5173, the Town/City of _____, a political subdivision of the State of Connecticut, acting herein by its duly authorized representative(s) does hereby grant and give freely, and without any coercion whatsoever, the right of access, entry and use of its public lands to the State of Connecticut and the United States Government, their departments, agencies, instrumentalities, contractors and subcontractors for the purpose of clearing and removing from its public lands or waters any disaster-related debris and wreckage that the State of Connecticut or the United States Government determines may threaten public health and safety and/or public and private property.

IT IS FULLY UNDERSTOOD THAT THIS AUTHORIZATION DOES NOT OBLIGATE THE STATE OF CONNECTICUT OR THE UNITED STATES GOVERNMENT TO PERFORM ANY OF THE ABOVE-DESCRIBED WORK.

The Town/City of _____ hereby agrees to report to the Department of Emergency Management and Homeland Security of the State of Connecticut and the Federal Emergency Management Agency of the United States Government, any insurance settlements or other funds obtained from any other source for the removal of debris and wreckage from its lands or waters that has been performed at the expense of the State of Connecticut or the United States Government.

Town/City of _____

Date:

By:_____
(Name, Title)
Duly Authorized Official

Approved: _____
(Town/City Attorney)

Date: _____

MILITARY ASSISTANCE

1. GENERAL

Military assistance may include such things as communications support, debris clearance, evacuation of casualties and disaster victims, search and rescue, feeding, health, medical and sanitation support, housing and shelter, police support, emergency street, road and bridge repair, fire suppression assistance, emergency demolition, emergency power supply, and restoration of utilities.

2. CONNECTICUT NATIONAL GUARD

The Connecticut National Guard (CTNG) is the primary source of military assistance to state and local civil authorities.

The Guard may be called to state active duty by the Governor. The Adjutant General (TAG), in consultation with the Department of Emergency Management and Homeland Security (DEMHS) Commissioner, shall make recommendations to the Governor regarding activation of Guard units.

In some cases, National Guard units on federal drill status may be utilized for disaster response operations.

In Presidentially declared disasters, the cost of mobilizing and employing the National Guard for performance of eligible work under the Stafford Act is reimbursable. The federal assistance share shall not be less than 75% of eligible costs. In a Presidentially declared emergency, certain Guard costs, such as costs associated with debris removal, may also be eligible for 75% (or higher) federal reimbursement. However, federal assistance under a Presidential emergency declaration is more limited than under a major disaster declaration.

In cases where National Guard resources are insufficient to meet the requirements of a disaster or emergency, assistance from active duty military components may be requested as outlined below.

3. POSSE COMITATUS ACT

Generally speaking, National Guard units on state active duty are the only military forces which may be utilized to assist with the enforcement of civilian laws. Federal military forces, including National Guard units on federal active duty, are precluded from law enforcement activities by the Posse Comitatus Act. There are certain Constitutional provisions under which federal military forces may be used for law enforcement, such as in riotous situations beyond the control of state and local authorities, but only following an executive order by the President for insurgents to disperse and retire peaceably within a limited time.

4. U.S. ARMY CORPS OF ENGINEERS - FLOOD FIGHTING ASSISTANCE

The U.S. Army Corps of Engineers (USACE) has authority to supplement state and local flood fighting and rescue operations (PL 84-99 and AR 500-60). Corps assistance may include such things as technical

advice, sandbags, high velocity pumps, emergency contracting and boats for rescue operations. State authorities should contact the Commander, New England District, U.S. Army Corps of Engineers in Concord, Massachusetts to request assistance. The Department of Emergency Management and Homeland Security (DEMHS) and the Department of Environmental Protection (DEP) will evaluate the need for Corps assistance. DEMHS will make requests for Corps assistance.

5. DEPARTMENT OF DEFENSE AUTHORITY UNDER THE STAFFORD ACT

Section 403(c) of the Robert T. Stafford Emergency Relief and Disaster Assistance Act, (PL 93-288, as amended) reads as follows:

"During the immediate aftermath of an incident which may ultimately qualify for (disaster relief or emergency assistance under the Stafford Act), the Governor of the State in which the incident occurred may request the President to direct the Secretary of Defense to utilize resources of the Department of Defense for the purpose of performing on public and private lands any emergency work which is made necessary by such incident and which is essential for the preservation of life and property. If the President determines that such work is essential for the preservation of life and property, the President shall grant such request to the extent the President determines practical. Such emergency work may only be carried out for a period not to exceed 10 days."

The federal share of assistance under this authority shall be not less than 75% of actual costs.

6. OTHER MILITARY ASSISTANCE TO CIVIL AUTHORITIES

Commanders of U.S. military installations may provide support to civil authorities in cases of "imminent seriousness," where prompt and vigorous action is necessary to save lives, prevent immediate human suffering or mitigate great destruction or damage to public or private property. The U.S. Army installation at Fort Drum, New York is primarily responsible for providing any military assistance to civil authorities in the New England States. Requests for assistance should be directed to the Headquarters, First U. S. Army, Fort Gillem, Georgia.

Prior to a Presidential disaster or emergency declaration the State Adjutant General should be the single coordinator for U.S. military (other than USACE) support to civil authorities. If State and local resources are insufficient to deal with an emergency situation, the State Adjutant General shall request necessary assistance from active component military units, following consultation with the Governor's Office and the DEMHS Commissioner.

Following a Presidential declaration, federal active duty military units will receive mission assignments from the Federal Coordinating Officer (FCO) appointed by the President. Mission assignments will be based on needs and priorities identified by the State and transmitted to the FCO by the State Coordinating Officer (usually the DEMHS Commissioner) appointed by the Governor.

PRELIMINARY DAMAGE ASSESSMENT

1. GENERAL

Preliminary Damage Assessments (PDAs) are organized, systematic field surveys of the disaster area by joint federal/state PDA teams, assisted and guided by local officials. PDAs must be conducted in accordance with, and as required by, federal regulations (44 CFR, Part 206, Section 206.35) prior to a gubernatorial request for a Presidential disaster or emergency declaration under the Stafford Act.

Information regarding disaster impacts gathered by PDA teams is used by the state to:

a) make an initial determination of the impact of a disaster upon the state;

b) determine the need for federal disaster assistance; and

c) develop documentation to support a request for federal disaster assistance;

PDA information is used by the federal government to evaluate requests for federal disaster assistance.

Information and estimates developed during the joint federal/state PDA do not serve as the basis for subsequent federal disaster assistance funding. Such information is developed by a variety of federal agencies following a federal disaster declaration and only upon formal application for federal assistance by a disaster-affected resident, local unit of government, state agency or eligible private non-profit organization.

The initial phase of a PDA (i.e., that part of the PDA which takes place in the most heavily impacted county, or counties, prior to submission of a gubernatorial request for federal assistance) can take from one to five days or longer depending upon the magnitude of the disaster. Small scale disasters will generally require a longer initial PDA to identify enough eligible damage to qualify for federal assistance.

After the initial Presidential declaration, PDAs may resume in less seriously impacted counties to determine if additional areas of the state should be declared eligible for federal assistance.

2. INITIATION AND COORDINATION OF PDA

The Department of Emergency Management and Homeland Security (DEMHS) Commissioner will notify the Federal Emergency Management Agency (FEMA) Regional Director of the need for a PDA following consultation with the Governor's Office.

DEMHS and FEMA are responsible for coordinating the PDA effort and will form a PDA coordination team which will:

a) notify appropriate state and federal agencies of the need to perform a PDA and request agencies to provide a specified number of qualified personnel to participate on the PDA teams;

b) request the participation of the State Coordinating Chapter of the American Red Cross on PDA teams, in particular the Individual Assistance (IA) PDA teams;

c) designate federal and state representatives to each PDA team, brief PDA team members prior to the commencement of the PDA, provide appropriate forms, itineraries and local points of contact;

d) notify local officials of the estimated day and time of arrival of a PDA team in their community and of the information to have ready for the PDA team (See Section 5, "Local Officials.");

e) debrief each PDA team daily and/or at the conclusion of the PDA;

f) compile the results of the PDA and provide these results to the DEMHS Commissioner and other appropriate state and federal officials; and

g) provide copies of PDA team reports to the DEMHS Commissioner, the State Department of Transportation (DOT) and other state agencies as requested and appropriate.

The PDA coordination team will work from the State Emergency Operation Center (EOC). Briefings for PDA team members will normally be conducted in the Media Center in the State EOC.

3. RESPONSIBILITIES OF STATE AGENCIES

The State agencies listed below may be requested by DEMHS to provide personnel to serve on joint Federal/State PDA teams.

Economic and Community Development
Environmental Protection
Public Health
Public Safety (Office of State Building Inspector)
Public Works
Transportation

Federal members of the PDA teams are primarily responsible for developing actual damage estimates. State personnel serving on PDA teams are primarily responsible for such things as providing information on unit costs, labor and equipment rates, existing state codes and standards, and ensuring that all significant damage sites are surveyed by the PDA team. State PDA team members may also assist federal team members in developing damage estimates.

Other state agencies including Agriculture, Insurance, Public Health, and Consumer Protection may be requested by DEMHS to provide a written report on the disaster's impact with regard to their respective areas of expertise and concern. The National Guard, Department of Transportation, and Department of Public Safety/State Police may be requested by DEMHS to provide estimates of disaster-related costs of their agencies.

4. PDA TEAM OPERATIONS

A typical PDA team will consist of at least one Federal representative and one State representative. Team composition may increase depending upon the mission assigned to the team by the PDA coordination team.

There are two types of PDA teams, known as Individual Assistance (IA) teams and Public Assistance (PA) teams. An IA team assesses impacts upon private property including homes and businesses. PA teams assess damages to public facilities and estimate other public expenditures for such things as debris removal, overtime costs, etc.

Each PDA team will be given a list of towns in which to conduct a preliminary damage assessment by the PDA coordination team. Each PDA team will also be given a name(s) and phone number(s) of a local point of contact in each town. PDA teams will be provided with state road maps and PDA forms. Team members with access to cellular phones are encouraged to utilize them and to provide the PDA coordination team with their cellular phone numbers.

PDA teams are requested to call the local point of contact before proceeding to the town to arrange a rendezvous point with local officials. PDA teams are also requested to periodically call the PDA coordination team at the State Emergency Operations Center (EOC) (phone number to be provided to each PDA team when dispatched from EOC).

PDA teams should complete their surveys as quickly as possible. Reasonably accurate figures pertaining to costs and damages are the objective, not hard figures.

5. LOCAL OFFICIALS

Towns may be surveyed by either one or two PDA teams (an IA team and/or a PA team) depending upon the nature of damages sustained. IA and PA teams will usually arrive independently of one another.

Chief executives of disaster-impacted communities will be contacted by the PDA coordination team or by a DEMHS Regional Coordinator and notified of the day on which their town is scheduled for a survey by an IA or PA team. Chief executives should provide the PDA coordination team and/or Regional Coordinator with the name and phone number of a local point of contact that PDA teams should call prior to the team's departure for the town.

Local officials should have the following information and personnel available for the Public Assistance (PA) PDA team at the time the PA team reaches the agreed upon rendezvous point:

1) a breakdown of the local budget (minus education figures) showing amounts appropriated for the current fiscal year for:

   a) the Highway/Public Works Department
   b) road maintenance; and
   c) total local budget (minus education);

2) the current balances of the:

a) total local budget (minus education);
b) Highway/Public Works Department budget; and
c) road maintenance account;

3) local road maps for use by the PDA team;

4) estimates of additional payable hours or overtime worked by local government employees in response to the emergency;

5) other costs to local government of responding to the emergency including the costs of purchases, rentals and contracts;

6) information regarding insurance coverage on municipal facilities; and

7) public works director, town engineer, local emergency management director or other local officials desiring to participate in the PDA (building official, assessor, etc.).

Local officials should guide both IA and PA teams to all areas of significant damage in the community. To ensure that acceptably accurate replacement cost estimates of public facilities are developed, the local public works director or a qualified designee should participate in the PDA. Such a local official is essential to adequately describe a destroyed public facility as it existed prior to the disaster.

PRESIDENTIAL DISASTER/EMERGENCY DECLARATION PROCESS

1. GENERAL

The process by which a State requests a Presidential emergency or disaster declaration is found in Sections 401 and 501(a) of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 93-288, the Stafford Act, as amended) and in regulations of the Federal Emergency Management Agency (44 CFR 206.35 and 206.36) and in 42 U.S.C. 5121-5206. Adherence to the process contained in the applicable laws and regulations mentioned above will ensure rapid processing of State requests by the Federal Emergency Management Agency (FEMA).

The Department of Emergency Management and Homeland Security (DEMHS) will assess the severity and magnitude of a disaster's impact based upon situation reports provided by local governments, state agencies and private response organizations and upon Preliminary Damage Assessments (PDAs) conducted in conjunction with FEMA. (See Section Q.) DEMHS officials will consult with other state agency officials, and the DEMHS Commissioner will advise the Governor as to whether:

a) effective response is within the capabilities of the State and affected local governments;

b) appropriate federal assistance can be provided by individual federal agencies acting under their own statutory authorities; and

c) Federal disaster or emergency assistance under Public Law 93-288 is needed.

Upon a determination by the Governor that Federal assistance under Public Law 93-288 is needed, DEMHS will prepare the formal, written request in accordance with the applicable federal laws and regulations.

2. RESPONSIBILITIES OF OTHER STATE AGENCIES

The Department of Labor and the Office of Policy and Management will provide DEMHS with such statistical information as it may require in preparation of the declaration request including, but not limited to:

a) pre-disaster unemployment rates;
b) median income levels;
c) housing vacancy percentages;
d) other socio-economic conditions;
e) status of the State budget and projected deficits or surpluses; and
f) status of funds available from State accounts to assist with recovery efforts.

3. REQUESTS FOR MAJOR DISASTER DECLARATIONS

The Governor must submit his request for a major disaster declaration to the President through the FEMA Regional Director in Boston, Massachusetts. The request must be submitted within 30 days of the occurrence of the incident. The 30-day period may be extended by the Associate Director of

FEMA, provided that a written request for an extension is submitted by the Governor during the 30-day period. The extension request will stipulate reasons for the delay.

All written requests for a Presidential declaration of a major disaster must include the following information that is required by federal law or regulation:

a) a finding by the Governor that:

1) the situation is of such severity and magnitude that effective response is beyond the capabilities of the State and affected local governments; and

2) Federal assistance under the Stafford Act is necessary to supplement the efforts and available resources of the State, local governments, disaster relief organizations, and compensation by insurance for disaster-related losses;

b) confirmation that the Governor has taken appropriate action under state law and has directed execution of the State emergency plan;

c) an estimate of the amount and severity of damages and losses stating the impact of the disaster on the public and private sectors;

d) preliminary estimates of the types and amount of supplementary Federal disaster assistance needed under the Act {Programs: Individual Assistance, including the Individuals and Households Program (IHP), Disaster Unemployment Assistance, Crisis Counseling, Public Assistance, Hazard Mitigation, Small Business Administration Disaster loans, Direct Federal Assistance such as Debris Removal};

e) information describing the extent and nature of State and local resources which have been or will be used to alleviate conditions of the disaster, stating specifically those activities for which no Federal funding will be requested; and

f) certification by the Governor that State and local government obligations and expenditures for the disaster comply with all applicable cost-sharing; i.e. the State and local governments will assume all applicable non-Federal share of costs required under the Stafford Act.

When Direct Federal Assistance (DFA) is requested, the following information and certifications should be provided: (If DFA is not requested in the Governor's initial request, the Governor's Authorized Representative (GAR) can request DFA at a later date, if needed.)

a) request for direct Federal assistance for work and services to save lives and property;

b) list of reasons State and local government can not perform or contract for performance of the work assistance being requested; and

c) identification of specific types of assistance being requested.

In accordance with Direct Federal Assistance, 44 CFR 206.208, the State of Connecticut agrees that it shall:

1) Provide, without cost to the United States, all lands, easements and rights-of-way necessary to accomplish the approved work;

2) Hold and save the United States free from damages due to the requested work, and shall indemnify the Federal Government against any claims arising from such work;

3) Provide reimbursement to FEMA for the non-Federal share of the costs of such work in accordance with the provisions of the FEMA-State Agreement;

4) Assist the performing Federal agency in all support and local jurisdictional matters;

5) In requests for debris removal where the debris poses an immediate threat to lives, public health and safety, the Governor's request shall state "Pursuant to Sections 403 and 407 of the Stafford Act, 42 U.S.C. 5170b and 5173, the State agrees to indemnify and hold harmless the United States of America for any claims arising from the removal of debris or wreckage for this disaster. The State agrees that debris removal from public and private property will not occur until the landowner signs an unconditional authorization for the removal of debris."

4. REQUESTS FOR EMERGENCY DECLARATIONS

When an incident occurs or threatens to occur in the State, which would not qualify under the definition of a major disaster as defined in PL 93-288, as amended, the Governor may request that the President declare an emergency. The request must be submitted within 5 days after the need for assistance becomes apparent, but no longer than 30 days after the occurrence of the incident. The period may be extended by the Associate Director of FEMA, provided that a written request for such extension is made by the Governor during the 30-day period immediately following the incident. The basis for the Governor's request must be that the situation:

a) is of such severity and magnitude that effective response is beyond the capabilities of the State and affected local governments; and

b) requires supplementary federal emergency assistance to save lives and to protect property, public health and safety, or to lessen or avert the threat of a disaster.

In addition to the above findings, the complete request shall include:

a) confirmation that the Governor has taken appropriate action under state law and has directed execution of the state emergency plan;

b) information describing the state and local efforts and resources which have been or will be used to alleviate the emergency,

c) information describing other federal agency efforts and resources which have been or will be used in responding to this incident; and

d) identification of the type and extent of additional federal aid required.

5. PROCESSING OF REQUESTS FOR PRESIDENTIAL DECLARATIONS

The Governor's request shall be sent to the FEMA Region I Director who is required by regulation to acknowledge receipt of the request in writing. The FEMA Regional Office will perform an analysis of the Governor's request and forward it to the Director of FEMA in Washington along with a recommendation to grant or deny the request. The FEMA Director will review the FEMA Regional analysis and make a final recommendation to the President to grant or deny the request.

Based on the Governor's request and the FEMA Director's report and recommendation, the President may:

a) grant the Governor's request;

b) deny the Governor's request; or

c) grant an emergency declaration if a major disaster declaration has been requested.

The Governor will be promptly notified of the President's determination by the Director of FEMA or his designee.

6. DESIGNATION OF AREAS ELIGIBLE FOR FEDERAL DISASTER ASSISTANCE

Upon a determination by the President that a major disaster or emergency exists, the Associate Director of FEMA will designate which areas of the State are disaster-affected and the types of federal aid to be made available. Designation of disaster-affected areas and types of federal aid is usually by county; however, it may be by town or other area. The Regional Director of FEMA will notify the Governor of the Associate Director's designations.

7. APPEALS

If a request for a major disaster or emergency declaration is denied, the Governor may appeal the decision within 30 days after the date of the letter denying the request. This request for reconsideration, along with appropriate additional information shall be submitted to the President through the FEMA Regional Director. The processing of this request shall be similar to the processing of the initial request.

DEMHS will be responsible for preparing all letters on behalf of the Governor's Office appealing federal decisions regarding declaration requests or designation of disaster-affected areas and types of assistance.

FEMA-STATE AGREEMENT FOR ASSISTANCE UNDER THE STAFFORD ACT

1. GENERAL

Upon the declaration of a major disaster or emergency by the President, the Governor, acting for the State, and the Federal Emergency Management Agency (FEMA) Regional Director, or his/her designee, acting for the Federal Government, shall execute a FEMA-State Agreement. The Governor's Authorized Representative (GAR) and the Regional Director (or his/her designee) may execute amendments to the agreement.

The FEMA-State Agreement states the understandings, commitments, and conditions for assistance under which FEMA disaster assistance shall be provided. This Agreement imposes binding obligations on FEMA, the State and its local governments in the form of conditions for assistance which are legally enforceable. However, such conditions may be modified by a properly executed amendment to the FEMA-State Agreement. No FEMA funds may be disbursed until such time as this Agreement for the Presidential declaration has been signed.

Much of the language contained in the FEMA-State Agreement is required by Federal regulations. The FEMA Regional Office is responsible for preparing the Agreement document and presenting it to the Governor for his review and signature.

For major disasters the Agreement describes the incident period for which assistance will be made available, the type and extent of the Federal assistance to be made available, and contains the commitment of the State and local government(s) with respect to funds to be expended in alleviating damage and suffering caused by the major disaster. The Agreement also contains other terms and conditions consistent with the declaration and the provisions of applicable laws, Executive Orders, and regulations.

For emergencies the Agreement specifies the beginning and the end of the incident period, identifies the type and extent of Federal assistance, and includes any details unique to the current emergency.

2. ESTABLISHMENT OF FEDERAL-STATE-LOCAL COST SHARE RATIOS

ONE OF THE MOST IMPORTANT ASPECTS OF THE FEMA-STATE AGREEMENT IS THE COST SHARE RATIO ESTABLISHED FOR FEDERAL ASSISTANCE TO STATE AND LOCAL UNITS OF GOVERNMENT AND ELIGIBLE PRIVATE NON-PROFIT ORGANIZATIONS. The federal share is not less than 75% of eligible costs and damages. In a particularly severe disaster, the Governor may negotiate an increase in the federal share.

The Governor will determine what percentage of local government and private non-profit organization expenditures and obligations, if any, will be absorbed by the State. Consultation with State legislative leaders may be necessary if legislative action to pay the State share of local obligations will be required.

Since the cost share ratios established in the FEMA-State Agreement are important to all applicants for public assistance (i.e., local governments) the terms of the FEMA-State Agreement should be communicated to all concerned parties as soon as possible.

3. DESIGNATION OF STATE OFFICIALS TO ADMINISTER DISASTER ASSISTANCE

In executing the FEMA-State Agreement, the Governor must designate a Governor's Authorized Representative (GAR) to act on his/her behalf in subsequent matters related to securing federal disaster assistance. Considering the nature of the responsibilities of the Governor's Authorized Representative, it is advisable that the Commissioner of the Department of Emergency Management and Homeland Security (DEMHS) be appointed to this position, and that the DEMHS Deputy Commissioner be appointed as the Alternate Governor's Authorized Representative (AGAR).

JOINT FIELD OFFICE/JOINT INFORMATION CENTER

1. GENERAL

The Joint Field Office (JFO) is a facility established by the Federal Coordinating Officer (FCO) from which disaster assistance operations are coordinated. The JFO is a management center for the disaster assistance programs where the State and Federal staff partners work together to carry out the mission of disseminating time-critical assistance to state/local government and individuals. The JFO should be functional (furnished, staffed and all necessary computers and telephone hookups operational within 48 to 72 hours of the State's declaration) and be located within the designated counties.

The JFO will be staffed by the FCO, the State Coordinating Officer (SCO) and their respective staffs. The major disaster assistance functions coordinated from the JFO are:

a) Disaster Recovery Center (DRC) operations;
b) Individuals and Households Program (IHP);
c) Inspection, by Federal Emergency Management Agency (FEMA) contractors, of damaged private properties whose owners have applied for federal disaster assistance;
d) State Crisis Counseling;
e) Small Business Administration loan program;
f) Hazard Mitigation program;
g) Community Relations;
h) Public Assistance program; and
i) Congressional Relations.

The Joint Information Center (JIC) is a facility established to coordinate all incident-related public information activities. It is the central point of contact for all news media. The Federal Public Information Officer (PIO), the State PIO, and the PIOs from all participating agencies and jurisdictions collocate at the JIC. Normally, the JIC occupies the same facility as the JFO.

2. SELECTION OF FACILITY FOR USE AS JFO/JIC

Normally, the FCO will locate and secure a facility adequate for use as a JFO/JIC through the US General Services Administration. If state assistance in locating an appropriate facility is needed, the Department of Emergency Management and Homeland Security (DEMHS) will contact the Department of Public Works (DPW) Emergency Operations Center who will then be responsible for alerting appropriate personnel of the DPW Real Estate Division.

The FCO will provide specific guidance on the necessary features of the JFO/JIC (including floor space, number of private offices, conference and meeting rooms, training space for disaster relief workers, and other resources for the Disaster Field Training Officer (DFTO).

All JFO/JIC operating expenses are the responsibility of the federal government. This includes arrangements and costs for renting/leasing, furnishing, phone installation and billings, utilities, parking, security, janitorial services, etc.

3. STATE AGENCY STAFFING REQUIREMENTS

The following State personnel will staff the JFO:

a) the SCO (designated by the Governor; normally the Department of Emergency Management and Homeland Security (DEMHS) Commissioner) or,
b) the Alternate SCO (designated by the Governor, normally the DEMHS Deputy Commissioner);
c) the Governor's Authorized Representative (GAR) (designated by the Governor; normally the DEMHS Commissioner) or,
d) the Alternate GAR (AGAR) (designated by the Governor; normally the DEMHS Deputy Commissioner);
e) the State Public Assistance Officer (appointed by the Governor; normally the AGAR);
f) the State Hazard Mitigation Officer (SHMO) (appointed by the Governor; normally from the Inland Water Resources Division of the DEP); and
g) the Individuals and Households Program Coordinator (from the Department of Social Services (DSS).

The following State personnel will staff the JIC:

a) the State Public Information Officer (i.e., the Governor's Press Secretary or his designee);
b) DEMHS Director of Communications; and
c) PIOs of other State agencies as determined necessary by the State PIO.

These officials are the State partners of their Federal counterparts. All officials listed above shall be responsible for arranging for any necessary staff and/or clerical support, computers, printers, etc.

The SCO may request other State agency personnel to staff the JFO/JIC as necessary.

The SCO may also request that the American Red Cross provide personnel to staff the JFO/JIC as necessary.

All State personnel assigned to the JFO/JIC are considered part of the SCO's staff and shall participate in such meetings and submit such written reports and information as may be requested by the SCO.

4. GOVERNOR'S EMERGENCY COMMUNICATIONS TEAM

The Governor's Emergency Communications Team consists of all state agency communications directors and public information officers (PIOs) as well as the Governor's personal Communications Office staff. The Governor's Director of Communications serves as the head of the Communications Team and may designate operational coordination to a member of his/her staff. Additionally, a DEMHS staff person is assigned by the DEMHS Commissioner to serve as the administrative manager and coordinator of the Communications Team, maintaining all contact information, drafting schedules, coordinating team training and assisting the Governor's Office as required.

The purpose of the Governor's Emergency Communications Team is to develop and distribute comprehensive, centralized public information and precautionary instructions to the public on a 24

hour basis during times of crisis. Because of limited individual agency staffing, state PIO assets must be "pooled" to adequately staff and sustain a Joint Information Center.

The authority to activate the Governor's Emergency Communications Team – and to open the Joint Information Center – rests with the Office of the Governor, specifically the Governor's Chief of Staff and/or Director of Communications. This authority may be delegated for specific incidents or emergencies to the DEMHS Commissioner.

Normally, the DEMHS Commissioner will make a recommendation to the Governor and/or Chief of Staff as to the need for a Joint Information Center (JIC) based on the nature of the disaster or emergency.

TELEREGISTRATION AND DISASTER RECOVERY CENTER

1. TELEREGISTRATION

The Federal Emergency Management Agency (FEMA) utilizes a 1-800 telephone number as the primary means of establishing contact with disaster victims. A call to a FEMA National Teleregistration Center number begins the disaster assistance application process. FEMA will widely publish a specific 1-800 telephone number at the time the disaster is declared by the President. Inspectors under contract to FEMA may visit the homes and businesses of victims who call and register for assistance through a National Teleregistration Center. These inspections will be the basis for eligibility determinations and referral to other appropriate disaster assistance programs.

2. DISASTER RECOVERY CENTERS (DRCs)

Disaster Recovery Centers (DRCs) may be requested by the State as a component to any disaster recovery strategy. They are the principal provider of community level applicant assistance and represent the only intergovernmental presence available to the general public. DRCs supplement the delivery of Federal and State programs while simultaneously providing an environment conducive to interactive workshops and emotional support. A Disaster Recovery Center is a readily accessible facility in the disaster area where individuals, family members, and business owners may visit for:

a) Guidance on Disaster Recovery (various Federal, State, and local agencies);
b) Assistance to help clarify any written correspondence received;
c) Housing assistance and rental resource information from the Individuals and Households Program (IHP) program;
d) Answers to questions, problem resolution, and appropriate referrals;
e) Status of applications being processed by FEMA and the Small Business Administration (SBA);
f) Workshops (SBA, Mitigation, etc.); and
g) Applicant Registration via telephone (National Teleregistration Center).

a. Selection of Disaster Recovery Centers

Upon submission of a request for a Presidential disaster declaration, the State Coordinating Officer (SCO) (usually the Commissioner of the Department of Emergency Management and Homeland Security [DEMHS}) and the Federal Coordinating Officer (FCO) shall jointly begin determining the number of DRCs that should be opened and the general areas in which they should be located. The DEMHS Commissioner will advise the Governor's Office concerning the number and location of DRCs.

The DEMHS Regional Coordinators will contact the local chief executives of towns specified by the DEMHS Commissioner to secure adequate local facilities for use as DRCs. If there are suitable State facilities in a town where a DRC is to be located, Regional Coordinators should contact State officials of those facilities, following consultation with the chief executive of the town in which the State facility is located.

All DRCs should have, as a minimum, the following features:

1) an open floor space, such as a basketball court;
2) adequate restroom facilities;
3) office space for the DRC manager;
4) a private area(s) for crisis intervention work;
5) easy building access, with handicapped ramps; and
6) telephones (including a TDD/TT for the hearing impaired) and computer hookup capability.

Under present federal regulations, the operating costs of the DRC are not reimbursable (e.g., heat, lights, janitorial, etc.).

In the pre-declaration phase it is imperative that no public announcements be made by State or local officials concerning DRCs. Regardless of any preliminary arrangements between State and local officials, FEMA makes the final decisions regarding the number of DRCs that will be staffed by federal relief workers. The SCO and the FCO shall determine the hours and days of DRC operation. All local officials contacted during the pre-declaration phase shall be notified of the Federal/State decision regarding the final numbers and locations of DRCs. Premature statements about DRCs can be a source of confusion to disaster victims and public officials alike.

b. Staffing Disaster Recovery Centers

Sufficient numbers of employees should be committed to the DRCs to service disaster victims in a timely manner. DRCs are particularly busy in the late afternoon and evening after normal working hours, on weekends, and on the first and last days of operation.

In addition to Federal agencies, the State and private agencies listed below will staff all DRCs during all hours of operation if so requested by the SCO:

1) the Department of Economic and Community Development will provide information on relocation sites for businesses and state aid available to affected businesses;
2) the Department of Mental Health and Addiction Services will arrange for crisis intervention workers at DRCs to assist emotionally distressed disaster victims and to observe and assist emergency workers as well;
3) the Department of Labor will provide representatives to handle questions about disaster-caused unemployment benefits, and to take applications for the Disaster Unemployment Assistance program;
4) the Department of Environmental Protection will provide flood insurance map-readers, if necessary;
5) the Department of Social Services will provide staff for the IHP program administered by FEMA, as needed;
6) the Department of Revenue Services will provide tax related assistance; and
7) the American Red Cross will provide information on ARC relief programs and make appropriate referrals.

In addition, DEMHS will ensure that the DRC Manager is provided with phone numbers for obtaining other state services that may be needed by disaster victims including phone numbers for interpreting services, insurance questions, consumer fraud issues, deaf and hearing impaired services, services for the elderly, services for the blind, and services for Tribal Nations.

c. Mobile Disaster Recovery Centers

The FCO and the SCO will jointly determine that one or more mobile DRCs are necessary to provide adequate service to disaster victims in outlying areas. Individual State agencies listed above may be requested by the SCO to staff such mobile DRCs.

FEMA PUBLIC ASSISTANCE PROGRAM

1. GENERAL

In Presidentially declared disasters or emergencies State and local government agencies and certain private non-profit organizations may be eligible for grant assistance under the Federal Emergency Management Agency's (FEMA) Public Assistance Program, authorized by PL93-288. The program provides assistance for removal of debris, the implementation of emergency protective measures, and the permanent restoration of the public infrastructure. The program also encourages protection from future damage by providing assistance for mitigation measures during the recovery process. In most circumstances FEMA will pay 75 percent of the cost of eligible work. In the case of local governments, the State may pay an additional share of the eligible work. The exact amount of the State share will be determined at the time of the disaster and will be set forth in the FEMA-State Agreement.

2. RECORD KEEPING

When a disaster strikes, there is a tendency to "do whatever needs to be done" with a minimum of red tape. Normal documentation and record keeping are often overlooked or waived for the sake of expediency. While this tendency is understandable, it may well prove to be extremely costly.

All potential applicants for FEMA disaster assistance including State agencies, local governments, and private non-profit organizations are requested to begin documenting and recording expenditures and damages as soon as emergency response activities are undertaken. **Federal reimbursements will not be provided if it cannot be demonstrated that: 1) money has been actually expended, or 2) that damages have been incurred as a direct result of the declared disaster and/or emergency.**

The following suggestions are offered to assist potential applicants with record keeping:

a) **Take Pictures.** Before and after photographs of damaged facilities may provide the most irrefutable evidence on damages. Often it is necessary for State and local forces to perform emergency work without delay, before there is a Presidential disaster declaration and before federal inspectors have arrived to view the disaster area. Good pictures of such things as disaster deposited debris, buildings or bridges in need of immediate demolition, sandbag dikes, etc. may help to demonstrate that emergency work was:

1) necessary,
2) performed, and
3) eligible for reimbursement.

If at all possible, **wait for federal damage survey teams** to survey the area before beginning permanent restorative work or debris removal operations. Bear in mind, however, that it may be several days before these teams arrive and that public health and safety should not be compromised if a clear and present danger requires immediate address.

b) For all disaster-related work which is contracted out keep:

1) copies of requests for bids,
2) the bid documents,
3) the contracts which are let,
4) invoices submitted by the contractor,
5) warrants authorizing check issuance, and
6) copies of checks issued in payment.

c) For work performed by force account, i.e., the applicant's own forces, keep:

1) appropriate extracts from payrolls with any cross-references needed to locate original documents,
2) a schedule of equipment used on the job, and
3) invoices, warrants and checks issued and paid for materials and supplies used on the job.

All records and documents which may be used in claiming reimbursement should be kept in a central location. The applicant is responsible for ensuring compliance with state and local procurement regulations. Record keeping and documentation should continue throughout the response and recovery phases of a disaster or emergency. **Remember, the most common reason for failure to obtain federal assistance is a lack of adequate documentation**.

Should a Governor's request for a Presidential disaster declaration be denied, it is possible that the State, through a special act of the legislature, might appropriate funds for its own disaster assistance program. In all likelihood, documentation and records similar to those described above would also be necessary in order to be eligible for assistance under a State disaster assistance program.

3. DESIGNATION OF AREAS ELIGIBLE FOR PUBLIC ASSISTANCE

Following the declaration of a disaster or emergency by the President, the FEMA National Office in Washington, D.C. will determine which areas of the State will be eligible for Public Assistance. The Governor will be notified of FEMA's determination through the FEMA Regional Director.

Emergency work and permanent restorative work on damaged/destroyed public facilities within the designated area may be eligible for assistance in accordance with the specific disaster declaration criteria. The Preliminary Damage Assessment (PDA) data forms the foundation for immediate funding for emergency; work in the communities hardest hit by the disaster. This Immediate Needs Funding, up to 50% of the Federal share of the PDA estimates for emergency work, provides funds for applicants to continue recovery activities without the burden of extensive documentation and review during the peak of crisis operations.

4. DESIGNATION OF STATE PUBLIC ASSISTANCE OFFICER (PAO)

If the disaster declaration authorizes the implementation of the FEMA Public Assistance Program, the Governor must appoint the State Public Assistance Officer (PAO), usually a DEMHS staff member. The State PAO will locate at the Joint Field Office (JFO) and will work closely with the FEMA PAO to schedule Applicants' Briefings to assist State agencies and local governments in developing project applications for federal assistance.

5. INITIAL NOTIFICATION OF ELIGIBLE APPLICANTS

The State Public Information Officer (i.e., Governor's Press Secretary or his designee) and the FEMA Public Information Officer shall be responsible for developing and issuing joint press releases describing areas of the State eligible for public assistance.

6. APPLICANTS' BRIEFINGS

Applicants' Briefings are conducted by the FEMA and the State PAOs. The Briefings are attended by appropriate local officials and representatives of State agencies. The purposes of the Briefings are to explain the FEMA Public Assistance Program including application eligibility and appeal procedures as well as to answer questions. Applicants will be furnished informative materials including handbooks and fact sheets.

The State PAO shall confer with the FEMA PAO and shall determine the number of Applicants' Briefings that will be necessary, and the most suitable location(s) for such Briefings.

The State PAO shall make arrangements for the use of appropriate facilities in which to conduct Briefings and shall notify the local chief executives of all eligible communities of the time, date and place of the Applicants' Briefing for their community. It is recommended that the following officials from each eligible community attend the Applicants' Briefing.

a) Chief Executive Officer,
b) Finance or Fiscal Officer, and
c) Town Engineer or Public Works Director.

At the Applicants' Briefing, or subsequent to it, local officials should provide the State PAO with the names of eligible private non-profit facilities in their towns which have sustained disaster-related damages. Eligible private non-profit facilities include educational, utility, emergency, medical, custodial care, or other private non-profit facilities providing essential governmental type services to the general public, as well as such facilities on Indian reservations. The State PAO will review all Requests for Public Assistance (RPAs) for private non-profit organizations to determine if they are eligible entities prior to submitting the RPAs to FEMA.

A separate Applicants' Briefing will normally be held for state agencies. The State PAO will notify appropriate state agency officials of the location, date and time of Applicants' Briefings for state agencies. It is important that officials attending Applicants' Briefings are aware of the types of public facilities which have sustained damage and the types of emergency work already performed or to be performed.

Applicants will be encouraged to complete and hand in a Request for Public Assistance (RPA) form and a Receipt of the List of Assurances form (LOA) at the Applicants' Briefings, but may submit their RPA and LOA forms up to 30 days after the designation of a county as eligible for public assistance. If the RPA and LOA forms are not submitted before the deadline, the Applicant will be ineligible for the program. (See the RPA and the LOA forms at the end of section V.)

7. INSPECTOR BRIEFINGS

The FEMA and State PAOs shall schedule briefings for state and federal inspectors who may assist state and local governments in developing Project Worksheets (PWs). Normally these briefings will be held at the Joint Field Office (JFO). Inspector briefings will be conducted by FEMA Public Assistance personnel and are intended to familiarize state and federal inspectors with the use of appropriate forms and procedures and to provide disaster-specific information.

The Departments of Transportation, Environmental Protection, and Public Works shall provide personnel with engineering and/or construction expertise as requested by the State PAO to attend inspector briefings and to assist federal inspectors. The State PAO will request personnel from State agencies based upon a review of the RPAs and guidance of the FEMA PAO.

8. KICK-OFF MEETINGS AND PROJECT WORKSHEETS (PWs)

The FEMA PAO will assign a Project Officer to each applicant (i.e., state agency and community). The Project Officer will conduct a "Kick-Off Meeting" held in the community to explain procedures for preparing Project Worksheets (PWs) for Large and Small Projects. Local officials will be encouraged to prepare PWs for all Small Projects under $55,500 (amount adjusted periodically). The Project Officer will provide training and guidance to local officials regarding preparation of PWs for Small Projects. FEMA will be responsible for preparing PWs for all Large Projects (i.e., projects over $55,500, adjusted periodically). FEMA will use a predetermined Cost Estimating Formula (CEF) for determining the amount of federal assistance for each eligible Large Project. The FEMA CEF is a cost estimating methodology which uses standard construction industry practices and includes: labor, materials, equipment, project design and management, contractor overhead and profit, escalation due to inflation, and other factors that can increase project costs significantly over long construction periods.

9. PROJECT APPLICATIONS

Upon review and approval of PWs by FEMA, the State PAO prepares a Project Application (PApp) on behalf of the applicant (local government, state agency or private non-profit).

The PApp represents the total amount of financial assistance requested by an applicant from FEMA and the State for each category of assistance (i.e., debris clearance, emergency protective measures, roads systems, water control facilities, public buildings and equipment, public utilities, other damages such as parks and recreational facilities). The amounts represented on the PApp are based on the PWs. If additional damages are discovered, or if estimates on the original PWs prove too low, supplemental PWs and PApps may be developed by the State PAO. If it appears that the cost of restoring a damaged public facility will exceed the amount on the original PW, the State PAO should be contacted immediately and appropriate FEMA officials consulted. Failure to do so could result in the applicant bearing the additional costs.

10. SPECIAL CONSIDERATIONS

It is absolutely imperative that applicants for public assistance provide the State PAO with all pertinent information regarding: 1) insurance coverage on applicant-owned facilities and properties, 2) historical structures, and 3) environmental considerations. All project worksheets involving facilities and equipment for which there are special considerations must be reviewed by FEMA. The applicant has a critical role in identifying special considerations. Insurance proceeds will be deducted from assistance received from FEMA.

11. COORDINATION WITH STATE PUBLIC ASSISTANCE OFFICER (PAO)

Applicants are assigned to a federal program expert called a Public Assistance Coordinator (PAC), who will serve as their customer service representative on PA Program matters and who will manage the processing of all of the applicant's recovery projects. It is frequently a year or more from the time of the disaster before all federal funds are received by eligible local governments, private non-profit entities and state agencies. Throughout the recovery period it is absolutely essential that local officials keep in close touch with the State PAO. If there is any question whatsoever as to how to proceed, local officials should first consult with the State PAO. This will minimize confusion and delays and will ensure that all eligible costs are fully reimbursed by the federal government.

12. RESPONSIBILITY OF LOCAL OFFICIALS TO MONITOR WORK

Local officials are responsible for oversight of disaster-related work performed by private contractors working for the municipality. This can be especially important in disasters involving extensive debris removal operations. Local officials may be required by FEMA or the State PAO to explain local procedures for validating contractor invoices for work done. Inadequate monitoring of contractors by local officials could result in loss or reduction of federal and state disaster assistance funds in cases where FEMA or the State PAO determines that contractor invoices are excessively high and that local monitoring of contractors was inadequate to guard against inappropriate billings.

13. APPEALS

The appeal process is an opportunity for the applicant to request FEMA to review its decision regarding eligibility. Usually an appeal can be resolved informally. If, however, the applicant is not satisfied with the decision, there is a two-level appeal process: first to the Regional Director; second to the Associate Director at FEMA headquarters. The State PAO can assist the applicant through the appeals process.

14. AUDITS

Audits of eligible applicants will be conducted in accordance with FEMA guidelines and the Single Audit Act, P.L. 98-502. For purposes of the FEMA Public Assistance Program, the State of Connecticut is considered the grantee; local units of government and private non-profits are subgrantees.

15. PUBLIC ASSISTANCE FLOWCHARTS

The Public Assistance (PA) Program is based on a partnership of FEMA, State and local officials. FEMA is committed to enhancing this partnership through improved communication, training and information exchange. PROCESS Flowcharts, available on the FEMA website, show the PA Program from disaster planning to project approval stages.

FEDERAL EMERGENCY MANAGEMENT AGENCY **REQUEST FOR PUBLIC ASSISTANCE**			O.M.B. No. 3067-0151 Expires September. 30, 2006
Applicant ***(Political subdivision or eligible applicant):***			**Date Submitted**: -CT
County (*Location of Damages. If located in multiple counties, please indicate)*			
APPLICANT PHYSICAL LOCATIONS			
Street Address			
City	**County**	**State**	**Zip Code**
MAILING ADDRESS (*If different from Physical Location*)			
Street Address			
Post Office Box	**City**	**State**	**Zip Code**

Primary Contact /Applicant's Authorized Agent	**Alternate Contact**
Name	**Name**
Title	**Title**
Business Phone	**Business Phone**
FAX No	**FAX No**
Home Phone (Optional)	**Home Phone (Optional)**
Cell Phone	**Cell Phone**
E-Mail Address	**E-Mail Address**
Pager & Pin Number	**Pager & Pin Number**

Did you participate in the Federal/State Preliminary Damage Assessment (PDA)? ☐ **YES** ☐ **NO**

Private Non-Profit Organization? ☐ YES ☐ NO

If yes, which of the facilities identified below best describe your organization?

_____

Title 44 CFR part 206.221(e) defines an eligible private non-profit facility as: "…any private non-profit educational, utility, emergency, medical or custodial care facility, including a facility for the aged or disabled, and other facility providing essential governmental type services to the general public, and such facilities on Indian reservations" "Other essential governmental services facility means museums, zoos, community centers, libraries, homeless shelters, senior citizen centers, rehabilitation facilities, shelter workshops and facilities which provide health and safety services of a governmental nature. All such facilities must be open to the general public."

Private Non-Profit Organizations must attach copies of their Tax Exemption Certificate and Organization Charter or By-Laws. If your organization is a school or educational facility, please attach information on accreditation or certification.

RECEIPT
OF
LIST OF ASSURANCES

Submit to: State Public Assistance Officer, c/o DEMHS, 360 Broad Street, Hartford, CT 06105

I,_____, (Print your name & title) of the

_____ (town, city, borough, non-profit, agency)

have received/reviewed the List of Assurances and will submit a copy to the Administrative Head and the Finance Office of my Agency.

I am also aware that I have to keep records for three years from the starting date as specified in §13.42 (I)(c).

_____
(Signature & Title)

_____
(date)

APPLICANT ASSURANCES **(revised 5/07)**

The applicant hereby assures and certifies that he will comply with the FEMA regulations, policies, guidelines and requirements including OMB's Circulars A-102 for local governments and A-110 for institutions of higher education, hospitals and Private Non-Profits (PNPs), as they relate to the application, acceptance and use of Federal funds for this Federally-assisted project. Also, the Applicant gives assurance and certifies with respect to and as a condition for the grant that:

1. It possesses legal authority to apply for the grant, and to finance and construct the proposed facilities; that its charter and/or ordinances direct and authorize the person identified as the official dealing with the state to act in connection with the application and to provide such additional information as may be required.

2. It will comply with the provisions of: Executive Order 11988, relating to Floodplain Management, and Executive Order 11990, relating to Protection of Wetlands.

3. It will have sufficient funds available to meet the non-Federal share of the cost for construction projects. Sufficient funds will be available when construction is completed to assure effective operation and maintenance of the facility for the purpose constructed.

4. It will not enter into a construction contract(s) for the project or undertake other activities until the conditions of the grant program(s) have been met.

5. It will provide and maintain competent and adequate architectural engineering supervision and inspection at the construction site to insure that the completed work conforms with the approved plans and specifications; that it will furnish progress reports and such other information as the Federal grantor agency may need.

6. It will operate and maintain the facility in accordance with the minimum standards as may be required or prescribed by the applicable Federal, State and local agencies for the maintenance and operation of such facilities.

7. It will give the grantor agency and the Comptroller General, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the grant.

8. It will require the facility to be designed to comply with the "American Standard Specifications for Making Buildings and Facilities Accessible to, and Usable by the Physically Handicapped," Number A117.1-1961, as modified (41 CFR 101-17-7031). The applicant will be responsible for conducting inspections to insure compliance with these specifications by the contractor.

9. It will cause work on the project to be commenced within a reasonable time after receipt of notification from the approving Federal agency that funds have been approved and will see that work on the project will be prosecuted to completion with reasonable diligence.

10. It will not dispose of or encumber its title or other interests in the site and facilities during the period of Federal interest or while the Government holds bonds, whichever is the longer.

11. It agrees to comply with Section 311, P.L. 93-288 and with Title VI of the Civil Rights Act of 1964 (P.L. 83-352) and in accordance with Title VI of the Act, no person in the United States shall, on the ground of race, color. or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the applicant receives Federal financial assistance and will immediately take any measures necessary to effectuate this agreement. If any real property or structure is provided or improved with the aid of Federal financial assistance extended to the Applicant, this assurance shall obligate the Applicant, or in the case of any transfer of such property, any transferee, for

the period during which the real property or structure is used for a purpose for which the Federal financial assistance is extended or for another purpose involving the provision of similar services or benefits.

12. It will establish safeguards to prohibit employees from using their positions for a purpose that is or gives the appearance of being motivated by a desire for private gain for themselves or others, particularly those with whom they have family, business, or other ties.

13. It will comply with the requirements of Title II and Title III of the Uniform Relocation Assistance and Real Property Acquisitions Act of 1970 (P.L. 91-646) which provides for fair and equitable treatment of persons displaced as a result of Federal and Federally assisted programs.

14. It will comply with all requirements imposed by the Federal grantor agency concerning special requirements of law, program requirements and other administrative requirements approved in accordance with OMB Circular A-102, P.L. 93-288 as amended, and applicable Federal Regulations.

15. It will comply with the provisions of the Hatch Act which limit the political activity of employees.

16. It will comply with the minimum wage and maximum hours provisions of the Federal Fair Labor Standards Act, as they apply to hospital and educational institution employees of State and local governments.

17. To the best of his knowledge and belief the disaster relief work described on each Federal Emergency Management Agency (FEMA) Project Application for which Federal Financial assistance is requested is eligible in accordance with the criteria contained in 44 Code of Federal Regulations, Part 206, and applicable FEMA Handbooks.

18. The emergency or disaster relief work therein described for which Federal Assistance is requested hereunder does not or will not duplicate benefits received for the same loss from another source.

19. It will (1) provide without cost to the United States all lands, easements and rights-of-way necessary for accomplishments of the approved work; (2) hold and save the United States free from damages due to the approved work or Federal funding.

20. This assurance is given in consideration of and for the purpose of obtaining any and all Federal grants, loans, reimbursements, advances, contracts, property, discounts of other Federal financial assistance extended after the date hereof to the Applicant by FEMA, that such Federal Financial assistance will be extended in reliance on the representations and agreements made in this assurance and that the United States shall have the right to seek judicial enforcement of this assurance. This assurance is binding on the applicant, its successors, transferees, and assignees, and the authorized to sign assurances on behalf of the applicant.

21. It will comply with the flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973, Public Law 93-234, 87 Stat. 975, approved December 31, 1973. Section 102(a) requires, on and after March 2, 1975, the purchase of flood insurance in communities where such insurance is available as a condition for the receipt of any Federal financial assistance for construction or acquisition purposes for use in any area that has been identified by the Director, Federal Emergency Management Agency as an area having special flood hazards. The phrase "Federal financial assistance" includes any form of loan, grant, guaranty, insurance payment, rebate, subsidy, disaster assistance loan or grant, or any other form of direct or indirect Federal assistance.

22. It will comply with the insurance requirements of Section 314, P.L. 93-288, to obtain and maintain any other insurance as may be reasonable, adequate, and necessary to protect against further loss to any property which was replaced, restored, repaired, or constructed with this assistance.

23. It will defer funding of any projects involving flexible funding until FEMA makes a favorable environmental clearance, if this is required.

24. It will assist the Federal grantor agency in its compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, (16 U.S.C. 470), Executive Order 11593, and the Archeological and Historic Preservation Act of 1966 (16 U.S.C. 469a-1 et seq.) by (a) consulting with the State Historic Preservation Officer on the conduct of investigations, as necessary, to identity properties listed in or eligible for inclusion in the National Register of Historic places that are subject to adverse effects (see 36 CFR Part 800.8) by the activity, and notifying the Federal grantor agency of the existence of any such properties, and by (b) complying with all requirements established by the Federal grantor agency to avoid or mitigate adverse effects upon such properties.

25. It will, for any repairs or construction financed herewith, comply with applicable standards of safety, decency and sanitation and in conformity with applicable codes, specifications and standards; and. will evaluate the natural hazards in areas in which the proceeds of the grant or loan are to be used and take appropriate action to mitigate such hazards, including safe land use and construction practices.

26. Applicant agrees to conform to revisions to these assurances that may from time to btime be posted on the DEMHS website: www.ct.gov/demhs. Then click on Emergency Management and then click on Public Assistance.

STATE ASSURANCES

The State agrees to take any necessary action within State capabilities to require compliance with these assurances and agreements by the applicant or to assume responsibility to the Federal government for any deficiencies not resolved to the satisfaction of the Regional Administrator.

ACRONYMS, ABBREVIATIONS, AND GLOSSARY

AGAR	**Alternate Governor's Authorized Representative.** Individual designated by the Governor in the FEMA-State Agreement to exercise the same powers as the Governor's Authorized Representative (GAR) in the administration of federal disaster assistance on behalf of the State and local governments and other grant and loan recipients.
ANSI	**American National Standards Institute**
ARC	**American Red Cross**
ASCE	**American Society of Civil Engineers**
ASWP	**Alternate State Warning Point.** The State Department of Emergency Management and Homeland Security office located at 360 Broad Street, Hartford, CT 06105 is Connecticut's ASWP. The ASWP is responsible for disseminating weather watches and warnings issued by the National Weather Service when the State Warning Point is not covering this responsibility.
AT&T	**American Telephone and Telegraph**
CAP	**Civil Air Patrol**
CCIA	**Connecticut Construction Industries Association, Inc**
CDC	**Center for Disease Control and Prevention (US DHHS).** The CDC works to protect public health and safety by providing information to enhance health decisions; and it promotes health through partnerships with state health departments and other organizations.
CEF	**Cost Estimating Formula.** Estimating methodology using standard construction industry practices.
CEO	**Chief Executive Officer.** The official of the community who is charged with the authority to implement and administer laws, ordinances and regulations; a mayor, first selectman, town/city manager.
CFR	**Code of Federal Regulations**
CFPC	**Commission on Fire Prevention and Control (State of Connecticut)**
CGS	**Connecticut General Statutes**
CHOC	**Connecticut Helps Oversight Council.** A group of state agencies and nonprofit organizations convened by DEMHS and/or DCF and/or DMHAS on behalf of the Governor to coordinate resources and services for disaster victims. Includes OPM, DCF, DMHAS, DOI, DOL, DPH, DSS, Office of Victim Advocate, Office of Victim Services, American Red Cross, United Way, Salvation Army, Catholic Charities, Governor's Prevention Partnership, Center for Trauma and Response, Family and Children's Agency and CT Volunteer Organizations Active in Disaster (VOAD).
C-MED/RCC	**Centralized Medical Emergency Dispatch/Regional Coordination Center.** Coordinates and communicates between hospitals and pre-hospital emergency medical service providers. Also coordinates movement of medical resources to a mass casualty incident scene and the distribution of patients. There are 13 communications centers that perform the C-MED function. They are located in Bridgeport, Colchester, Groton, Litchfield, New Haven, Norwich, Prospect, Thompson, Tolland, Waterford, Westbrook and West Hartford.
COLLECT	**Connecticut On-Line Law Enforcement Communications Teleprocessing.** On-line system for disseminating text data among federal, state and local law enforcement agencies.
CONVEX	**Connecticut Valley Electric Exchange.** CONVEX is located in Newington, CT and is responsible for monitoring, planning and coordinating the electrical transmission system for Connecticut and Western Massachusetts under both normal and emergency conditions.
CRT	**Critical Response Team (American Red Cross)**
CSP	**Connecticut State Police**
CT	**Connecticut**
CT-N	**Connecticut Network**
CTNG	**Connecticut National Guard**
DAS	**Department of Administrative Services (State of Connecticut)**
DECD	**Department of Economic and Community Development (State of Connecticut)**
DCF	**Department of Children and Families (State of Connecticut)_**

DCP	**Department of Consumer Protection (State of Connecticut)**
DDS	**Department of Developmental Services (State of Connecticut)** formerly called the Department of Mental Retardation.
DEMHS	**Department of Emergency Management and Homeland Security (State of Connecticut)** formerly called Office of Emergency Management – OEM.
DEP	**Department of Environmental Protection (State of Connecticut)**
DFA	**Direct Federal Assistance**
DHS	**Department of Homeland Security (U.S.)**
DMHAS	**Department of Mental Health and Addiction Services (State of Connecticut)**
DMV	**Department of Motor Vehicles (State of Connecticut)**
DOAG	**Department of Agriculture (State of Connecticut)**
DOC	**Department of Corrections (State of Connecticut)**
DOHE	**Department of Higher Education (State of Connecticut)**
DOIT	**Department of Information Technology (State of Connecticut)**
DOL	**Department of Labor (State of Connecticut)**
DOT	**Department of Transportation (State of Connecticut)**
DPH	**Department of Public Health (State of Connecticut)**
DPS	**Department of Public Safety (State of Connecticut)**
DPUC	**Department of Public Utility Control (State of Connecticut)**
DPW	**Department of Public Works (State of Connecticut)**
DRC	**Disaster Recovery Center.** Facility located in or near a Presidentially-declared disaster area which individual disaster victims and business owners may visit for guidance and information on a variety of federal and non-federal disaster assistance programs, telephonic registration for disaster assistance, status reports concerning previously submitted applications for disaster assistance, interactive recovery workshops, emotional support, clarification of written correspondence from disaster relief agencies and other forms of assistance.
DSS	**Department of Social Services (State of Connecticut)**
EAS	**Emergency Alert System.** A statewide association of broadcast and cable media stations which assist federal, state and local officials by disseminating emergency public information related to weather and other emergencies.
EM	**Emergency Management**
EMAC	**Emergency Management Assistance Compact.** A Congressionally-sanctioned, interstate mutual aid compact to which most states, including Connecticut, belong.
EMS	**Emergency Medical Services**
EOC	**Emergency Operations Center**
ERT	**Emergency Response Team.** The ERT consists of federal disaster relief officials from the Federal Emergency Management Agency and other federal agencies. The ERT deploys to the Joint Field Office following a Presidential declaration of disaster or emergency and works under the direction of the Federal Coordinating Officer. The ERT provides operational, administrative and logistical support to federal response activities in the field. The ERT also provides support for the dissemination of information to the general public, the media and Congress.
ESF	**Emergency Support Function.** A category of disaster response or recovery operations identified in the National Response Framework (NRF) and assigned to ESF Coordinator, Primary and Support Federal Agencies. The Federal ESF agencies support State and local response and recovery operations and other Federal ESF agencies.
ESF # 1	**Emergency Support Function # 1 -Transportation**
ESF # 2	**Emergency Support Function # 2 - Communications**
ESF # 3	**Emergency Support Function # 3 - Public Works and Engineering**
ESF # 4	**Emergency Support Function # 4 - Firefighting**
ESF # 5	**Emergency Support Function # 5 - Emergency Management**
ESF # 6	**Emergency Support Function # 6 - Mass Care, Emergency Assistance, Housing, and Human Services**
ESF # 7	**Emergency Support Function # 7 – Logistics Management and Resource Support**

ESF # 8	**Emergency Support Function # 8 - Public Health and Medical Services**
ESF # 9	**Emergency Support Function # 9 - Search and Rescue**
ESF # 10	**Emergency Support Function # 10 - Oil and Hazardous Materials Response**
ESF # 11	**Emergency Support Function # 11 - Agriculture and Natural Resources**
ESF # 12	**Emergency Support Function # 12 - Energy**
ESF # 13	**Emergency Support Function # 13 - Public Safety and Security**
ESF # 14	**Emergency Support Function # 14 - Long-Term Community Recovery**
ESF # 15	**Emergency Support Function # 15 - External Affairs**
FCO	**Federal Coordinating Officer.** A FEMA official appointed by the President. The FCO is responsible for the overall integration of Federal emergency management resource allocations and activities in support of, and in coordination with State, tribal, and local requirements. The FCO ensures that federal disaster assistance is provided in a timely and coordinated fashion and in accordance with all applicable laws, regulations and agreements between FEMA and the State.
FEMA	**Federal Emergency Management Agency** is now a part of the U.S. Department of Homeland Security (DHS/FEMA).
FIRM	**Flood Insurance Rate Map**
FNARS	**Federal National Radio System**
GAR	**Governor's Authorized Representative.** Individual designated by the Governor in the FEMA/State Agreement to administer federal disaster assistance programs on behalf of the State and local governments and other grant and loan recipients.
GEOC	**General Emergency Operations Concepts.** Principles of emergency operations that generally hold true in natural and technological disasters and emergencies of all types and magnitudes,
HHS	**Department of Health and Human Services (US)**
IA	**Individual Assistance.** Disaster assistance provided to an individual victim or business owner.
IC	**Incident Commander.** Individual responsible for the management of all incident operations at the incident site.
ICP	**Incident Command Post**
ICS	**Incident Command System.** A standardized organizational structure used to command, control, and coordinate the use of resources and personnel responding to the scene of an emergency. ICS concepts and principles include common terminology, modular organization, integrated communication, unified command structure, consolidated action plan, manageable span of control, designated incident facilities, and comprehensive resource management.
IHP	**Individuals and Households Program.** Federal grant program for individuals and households for housing and other disaster-related needs.
IMT	**Incident Management Team**
IRRs	**Initial Response Resources.** Resources commonly needed in a disaster area which are stockpiled by FEMA or available through emergency contracts with private vendors that can be quickly deployed to a disaster site.
JFO	**Joint Field Office.** The primary field location for the coordination of response and recovery operations in a Presidentially-declared disaster or emergency. The JFO houses the Federal Coordinating Officer (FCO) and staff comprising the federal Emergency Response Team (ERT). The JFO operates with a schedule (up to 24 hours per day) sufficient to sustain federal response operations. The State Coordinating Officer (SCO) usually maintains a staff at the JFO as well.
JIC	**Joint Information Center.** An intergovernmental public information center established to ensure the coordinated release of information by federal, State and local officials to the media and the public regarding disaster-related activities and recovery programs.
MCI	**Mass Casualty Incident.** Any incident that causes emergency medical service providers to alter their normal pre-hospital patient care protocols in order to provide the most effective possible pre-hospital patient care. An MCI can also be defined as any single incident with a threshold number of casualties established in the local mass casualty plan.
MERS	**Mobile Emergency Response Support.** A FEMA detachment that deploys to a disaster area to support the initial federal responders with communications, data processing, food,

water,shelter, etc. Designed to be self-supporting for at least 72 hours.

MMRS **Metropolitan Medical Response System.** A federally funded initiative to enhance a local jurisdiction's capability to responds to a mass casualty incident resulting from any cause including weapons of mass destruction.

NAWAS **National Warning System.** A dedicated national telephone circuit connecting federal, state and local warning points. NAWAS is frequently used for the dissemination of weather warning information.

NDMS **National Disaster Medical System.**

NGO **Non-Governmental Organization.** A nonprofit entity serving a public purpose, not a private benefit.

NHC **National Hurricane Center.**

NIMCAST **NIMS Capability Assessment Support Tool.** A web-based self-assessment tool for states and local governments to use to evaluate their incident response and management capabilities.

NIMS **National Incident Management System.** As directed by the President and administered by the US DHS, this is a system that includes a standardized approach to incident management and response, training, credentialing, communications, equipment, and technologies. The NIMS system provides a consistent, nationwide approach for Federal, State, local, and tribal governments; the private sector; and non-governmental organizations (NGOs) to work together to prepare for, respond to, and recover from domestic incidents, regardless of cause, size, or complexity. The NIMS includes a core set of concepts, principles, and terminology – the Incident Command System (ICS). The NIMS includes, and is in the process of developing, multi-agency coordination systems; training; identification and management of resources; qualification and certification of personnel; and the collection, tracking, and reporting of incident information and resources.

NOAA **National Oceanographic and Atmospheric Administration**

NRF **National Response Framework.** Promulgated by U.S. DHS in January 2008, The NRF is a guide to how the nation conducts an all-hazards response. The NRF describes how federal agencies will coordinate with each other to provide support and assistance to state, local, and tribal governments; non-governmental organizations; and the private sector.

NRP **National Response Plan.** (Developed by the U.S. DHS) replaced the Federal Response Plan prepared by FEMA. The NRP was superseded in January 2008 by the National Response Framework (NRF).

NU **Northeast Utilities**

NWS **National Weather Service**

OEM **Office of Emergency Management (State of Connecticut)** is now called DEMHS – Department of Emergency Management and Homeland Security

OEMS **Office of Emergency Medical Services (State of Connecticut)** part of DPH

OPM **Office of Policy and Management (State of Connecticut)**

PA **Public Assistance.** FEMA disaster assistance program which provides relief to a public entity such as a state agency or local unit of government. In some circumstances, private non-profit entities may be eligible.

PAC **Public Assistance Coordinator.** FEMA official who conducts the Kick-Off meetings and provides assistance in developing project worksheets under the FEMA Public Assistance program. Connecticut also designates a Public Assistance Coordinator or Official.

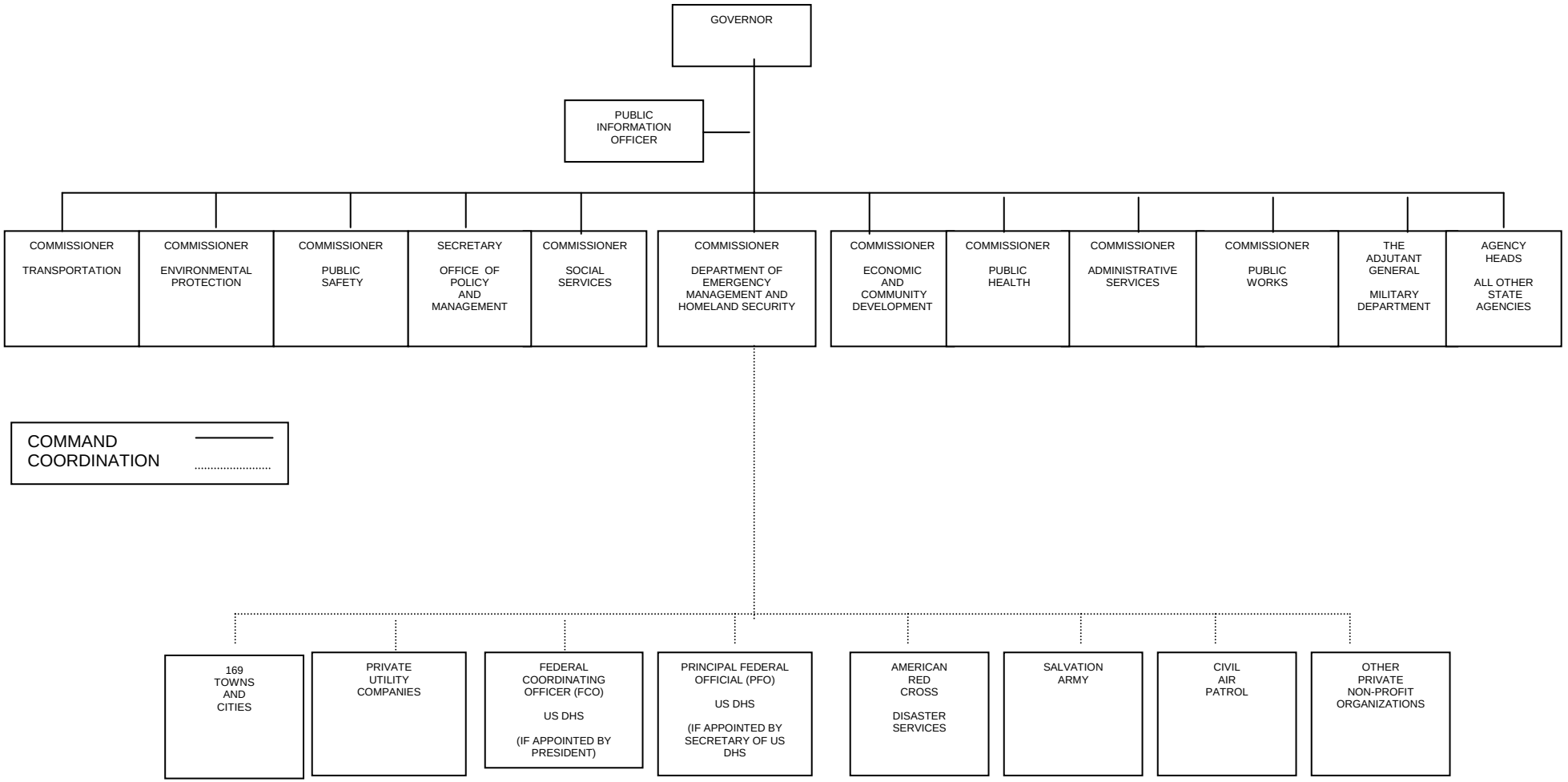
PAO **Public Assistance Official.** State official designated by the Governor and FEMA official designated by the FEMA Regional Director to administer the FEMA Public Assistance program authorized under Section 406 of the Robert T. Stafford Disaster Relief and emergency Assistance Act, as amended.

PApp **Project Application.** The Project Application represents the total amount of financial assistance requested by an applicant for each category of assistance.

PDA **Preliminary Damage Assessment.** A survey of damages in a disaster-affected area by a joint federal-State-local team. Federal regulations require PDAs prior to a governor's request for a major disaster declaration under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended.

PFO	**Principal Federal Official.** Federal official who may be designated by the Secretary of Homeland Security to coordinate the activities of other Federal officials, acting under their own authorities, to ensure consistency of Federal support as well as the overall effectiveness of Federal incident management.
PIO	**Public Information Officer**. Designated spokesperson who deals with the media.
PL	**Public Law (of the United States).**
POD	**Point of Dispensing.** Location for distribution of supplies and vaccines from the Strategic National Stockpile.
PW	**Project Worksheet.** Form used for estimates for public assistance application.
ROC	**Regional Operations Center** is now called the Regional Response Coordination Center – RRCC.
RPA	**Request For Public Assistance.** A form used by a state, local or tribal government or a public or private non-profit organization to apply for disaster assistance from the Federal Emergency Management Agency.
RRCC	**Regional Response Coordination Center.** Located in Maynard, Massachusetts the RRCC is a federal interagency operations center for coordination of federal support to states in disasters and emergencies. The RRCC houses the federal Emergency Response Team (ERT) prior to the establishment of the Joint Field Office (JFO) in the disaster-affected state.
SAO	**State Approving Official**
SCO	**State Coordinating Officer.** State official designated by the Governor in the FEMA-State Agreement following a Presidentially-declared disaster or emergency to coordinate state and local response and recovery activities with those of the federal government. The SCO is usually the State Emergency Management and Homeland Security Commissioner.
SDE	**Department of Education (State of Connecticut)**
SHMO	**State Hazard Mitigation Officer.** State official designated by the Governor in the FEMA-State Agreement to ensure compliance with federal hazard mitigation requirements under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended.
STOCS	**State Tactical On Scene Channel System**
SWP	**State Warning Point.** The State Department of Public Safety located at 1111 Country Club Road in Middletown, CT 06457 is the SWP for Connecticut.
TAG	**The Adjutant General.** The Commissioner of the State Military Department.
TDD/TT	**Telecommunications Devices for the Deaf/Text Telephones**
TDSRS	**Temporary Debris Storage and Reduction Site**
UC	**Unified Command**
UCS	**Unified Command System.** Multi-agency, multi-jurisdictional command system in which responding organizations jointly determine the operational goals and response strategies.
UERN	**Utility Emergency Radio Network.** Radio network operated by Northeast Utilities
UI	**United Illuminating**
USACE	**U.S. Army Corps of Engineers**
USC	**United States Code**
USCG	**United States Coast Guard**
USDA	**United States Department of Agriculture**
WI System	**Welfare Information System.** Established by the American Red Cross after a large disaster to help family members locate living relatives in or near the disaster area. ARC collects names of survivors located in hospitals and shelters and provides information to relatives who may inquire as to their whereabouts.

CHART OF AGENCIES INVOLVED IN DISASTER RESPONSE IN CONNECTICUT



Local Plan Coordination
Appendix 4

APPENDIX 4-1. LOCAL PLAN UPLOAD AND TRACKER

Appendix 4-1. Local Plan Upload and Tracker

Add hazards as needed. Will delete hazards that are not addressed in any plan.

RPO	County	Community	Dam or Levee Failure	Drought	Earthquake	Erosion	Extreme Cold	Extreme Heat	Flood, Coastal & Storm Surge	Flood, Flash	Flood, Poor Drainage	Flood, Riverine	Geomagnetic Storms	Hail	Hurricane	Ice	Ice Jam & Associated Flooding	Landslide & Mudflow	Land Subsidence & Sinkholes	Lightning	Sea Level Rise	Thunderstorms (Summer Storms)	Tornado	Tsunami	Wildfire	Wind	Winter Storm / Snow / Blizzard
MetroCOG	Fairfield	Bridgeport	L-M		L				M-H			M-H		M	H					M-H		H	L-M			L-M	H
MetroCOG	Fairfield	Easton	L-M		L							M		M	M-H					M		H	L-M			L-M	H
MetroCOG	Fairfield	Fairfield	L-M		L				M-H			M-H		M	H					M		H	L-M			L-M	H
MetroCOG	Fairfield	Monroe	L		L							M		M	M-H					M		H	L-M			L-M	H
MetroCOG	Fairfield	Stratford	L		L				M-H			M-H		M	H					M-H		H	L-M			H	H
MetroCOG	Fairfield	Trumbull	L-M		L				M			M		M	M-H					M		H	L-M			L-M	H
WestCOG	Fairfield	Bethel	L-M	L	L-M			L			M-H	M-H		L-M	M	M-H				L-M		H	L		L	M-H	H
WestCOG	Litchfield	Bridgewater	L	L	L-M						M-H	M-H		L-M	M-H	M-H				M		M-H	M		L	M-H	H
WestCOG	Fairfield	Brookfield	L	L	L-M						M-H	M-H		L-M	M-H	M-H				M		M-H	M		L	M-H	H
WestCOG	Fairfield	Danbury	M-H	L	M						M	M-H		M	H	H	L			M		M-H	M		L	H	H
WestCOG	Fairfield	New Fairfield	M	L	L-M				None	M	M	M		M	H	M-H	L			M		H	L-M		L-M	H	H
WestCOG	Litchfield	New Milford	M-H	L	L-M	L			None		L	M-H		M	H	M	L-M	L-M		M		H	M		L-M	H	H
WestCOG	Fairfield	Newtown	M-H		L-M					M	M	M-H			H	M				M		H	L-M		M-H		H
WestCOG	Fairfield	Redding	M-H		L-M					M	M	H			H	M				M		H	L-M		M		H
WestCOG	Fairfield	Ridgefield	M-H		L-M					M	H	H			M					M		H	L-M		M-H		H
WestCOG	Fairfield	Sherman	M		M-H						L-M	M		M	H	H	L			M		H	M		L-M	H	H
SWestCOG	Fairfield	Darien	L	L		L	H	H	M-H	M-H		H		L	H					M	L-M	H	L	M	L		H
SWestCOG	Fairfield	Greenwich	M	H	M	L	M	H	M-H	M-H		H		L	H					L	L-M	H	L		L		H
SWestCOG	Fairfield	New Canaan	M	M	M	L	H	H	L	L-M		H		L	H					L		H	L-M				H
SWestCOG	Fairfield	Norwalk	L	L	L-M	L	L	L	M-H	M-H		H			M					L	L-M	M	L				M
SWestCOG	Fairfield	Stamford	L	L	L-M	M-H	M	M	M-H	M-H		H			M-H					M-H	L-M	M-H	L-M		L		M-H
SWestCOG	Fairfield	Weston	L	M	L	M	M	L	L	L-M		H			H					H		H	L-M		H		H
SWestCOG	Fairfield	Westport	L	L	L-M	L	L	L	M-H	M-H		H			H					M	L-M	H	M				H
SWestCOG	Fairfield	Wilton	M	H	M	M	M	M	L	L-M		H		L	H					M		H	M		M		H
CRCOG	Hartford	Avon	M-H	M	L							M-H			M-H								M		L		H
CRCOG	Hartford	Berlin	H	M	L-M							H			H								M		L		H

CRCOG	Hartford	Bloomfield	M-H	M	L							M-H			M-H									M			L		H
CRCOG	Hartford	Canton	M-H	M	L							H			M-H									M			L		H
CRCOG	Hartford	East Granby	M-H	M	L							M			M-H									M			L		H
CRCOG	Hartford	East Hartford	M-H	M	L							H			M-H									M			L		H
CRCOG	Hartford	East Windsor	M-H	M	L							M			M-H									M			L		H
CRCOG	Hartford	Enfield	M	M	L							H			M-H									M			L		H
CRCOG	Hartford	Farmington	M-H	M	L							M-H			M-H									M			L		H
CRCOG	Hartford	Glastonbury	M-H	M	L							M-H			M-H									M			L		H
CRCOG	Hartford	Granby	M-H	M	L							M-H			M-H									M			L		H
CRCOG	Hartford	Hartford	M-H	M	L							H			M-H									M			L		H
CRCOG	Hartford	Manchester	M-H	M	L							M-H			M-H									M			L		H
CRCOG	Hartford	Marlborough	M-H	M	L							M-H			M-H									M			M		H
CRCOG	Hartford	New Britain	H	M	M							H			H									M			L		H
CRCOG	Hartford	Newington	M-H	M	L							M-H			M-H									M			L		H
CRCOG	Hartford	Plainville	L	M	L-M							H			H									M			L		H
CRCOG	Hartford	Rocky Hill	M-H	M	L							M-H			M-H									M			L		H
CRCOG	Hartford	Simsbury	M-H	M	L							M-H			M-H									M			L		H
CRCOG	Hartford	South Windsor	M-H	M	L							M-H			M-H									M			L		H
CRCOG	Hartford	Southington	H	M	L-M							H			H									M			L		H
CRCOG	Hartford	Suffield	M-H	M	L							M-H			M-H									M			L		H
CRCOG	Hartford	West Hartford	H	M	L							M			M-H									M			L		H
CRCOG	Hartford	Wethersfield	M-H	M	L							M-H			M-H									M			L		H
CRCOG	Hartford	Windsor	M	M	L							M-H			M-H									M			L		H
CRCOG	Hartford	Windsor Locks	M-H	M	L							M-H			M-H									M			L		H
NWHCOG	Litchfield	Barkhamsted	M	M	L							H				H							M-H			M	H	H
NWHCOG	Litchfield	Burlington	H	M	L-M							H			H									M			L - M		H
NWHCOG	Litchfield	Canaan	M-H	L	L						M-H	M-H		L	M	L-M				H			M-H	L			M-H	H	H
NWHCOG	Litchfield	Colebrook	M	M	L							M-H				H							M-H				M	H	H
NWHCOG	Litchfield	Cornwall	L-M	L	L						M-H	M-H		L	M	L-M				H			M-H	L			M-H	H	H
NWHCOG	Litchfield	Goshen	M	M	L						M-H	M-H				H							H				M	H	H
NWHCOG	Litchfield	Hartland	M	M	L							M-H			H	H							H	M-H			M		H
NWHCOG	Litchfield	Harwinton	M-H	M	L							H				H							M-H				M-H	H	H
NWHCOG	Litchfield	Kent	L	L	L						M	M-H		L	M	L-M				H			M-H	L			M-H	H	H

NWHCOG	Litchfield	Litchfield	M	M	L							H				H						M-H			M-H	H	H
NWHCOG	Litchfield	Morris	M-H	M	L							H				H						M-H			M-H	H	H
NWHCOG	Litchfield	New Hartford	M-H	M	L							H				M-H						M-H			M-H	H	H
NWHCOG	Litchfield	Norfolk	M-H	M	L							M-H				H						M-H			M-H	H	H
NWHCOG	Litchfield	North Canaan	M-H	L	L						M	M-H		L	M	L-M				H		H	L		M	H	H
NWHCOG	Litchfield	Roxbury	H	L	L						M	H		L	M	L-M				H		H	L		H	H	H
NWHCOG	Litchfield	Salisbury	H	L	L						M	H		L	M	L-M				H		H	L		M-H	H	H
NWHCOG	Litchfield	Sharon	M	L	L						M	H		L	M	M-H			M	H		H	L		M	H	H
NWHCOG	Litchfield	Torrington	H	M	L							H				H						M-H	L-M		M-H	H	H
NWHCOG	Litchfield	Warren	M	L	L						M	H		M	L-M	M-H				H		H	L		H	H	H
NWHCOG	Litchfield	Washington	M	L	L						M-H	H		M	M	M-H				H		H	L		H	H	H
NWHCOG	Litchfield	Winchester	H	M	L						M-H	H				H						M-H	L-M		M-H	H	H
LCRVCOG	Middlesex	Chester	M-H		M				M-H	H		H			M-H						H		L-M	M	M	M-H	H
LCRVCOG	Middlesex	Clinton	H		M				H	H		H			H						H		M	M	M	M-H	H
LCRVCOG	Middlesex	Cromwell	M	L	L	L	M	M		H		H			H		M					M	L-M		L	M-H	M-H
LCRVCOG	Middlesex	Deep River	H		M				H	H		H			M-H						H		L-M	M	M	M-H	H
LCRVCOG	Middlesex	Durham	M-H		L	L	M	L		H	H				H			L				M	L-M		L-M		M
LCRVCOG	Middlesex	East Haddam	H	L	L-M	L	M	M		H		H	L		H		M-H						L-M		L	M-H	M-H
LCRVCOG	Middlesex	East Hampton	M-H	L	L	L	M	M		H		M-H	L		H		M						L-M		L-M	M-H	M-H
LCRVCOG	Middlesex	Essex	M-H	L	M			M	H	H		H			M-H						H	M-H	L-M	M	L	M-H	M-H
LCRVCOG	Middlesex	Haddam	H	L	L	L	M	M		H		M-H	L		H		M						L-M		L-M	M-H	M-H
LCRVCOG	Middlesex	Killingworth	H		M				L	H		M-H			M-H						L		M	L	L-M	M	H
LCRVCOG	New London	Lyme	M-H		M-H				M-H	H		H			M-H						H		L-M	M	L-M	M-H	H
LCRVCOG	Middlesex	Middlefield	M-H	L	L	L	M	M		H	H		L		H		M						L-M		L	M-H	M-H
LCRVCOG	Middlesex	Middletown	H	L	L	L-M	M	M		H		H	L		H		M						L-M		L-M	M-H	M-H
LCRVCOG	New London	Old Lyme	M-H		M				H	H		H			H						H		L-M	L	M	M-H	H
LCRVCOG	Middlesex	Old Saybrook	H	L-M	M			M	H	H		H			H						H	M-H	M	M	L	M	H
LCRVCOG	Middlesex	Portland	H	L	L	L	M	M		H		H	L		H		M						L-M		L-M	M-H	M-H
LCRVCOG	Middlesex	Westbrook	H		M				H	H		H			H						H		L-M	M	M	M-H	H
NVCOG	New Haven	Ansonia	L		M-H						M-H	M-H		L-M	H	M-H		M		M		H	H		M	H	H
NVCOG	New Haven	Beacon Falls	H	L	M-H						M	M		L-M	H	H	L			M		H	M		L-M	H	H
NVCOG	Litchfield	Bethlehem	H	L	M-H						M	M		L-M	H	H	L			M		H	M-H		L-M	H	H

NVCOG	**Hartford**	**Bristol**	**M-H**	**M**	**L-M**							**H**			**H**								**M**		**L**		**H**
NVCOG	**New Haven**	**Cheshire**	**M-H**	**L**	**M-H**						**M**	**M**		**L-M**	**H**	**H**			**L-M**	**M**		**H**	**M**		**L-M**	**H**	**H**
NVCOG	**New Haven**	**Derby**	**L**		**M-H**						**M-H**	**M-H**		**L-M**	**H**	**M-H**		**M**		**M**		**H**	**H**		**M**	**H**	**H**
NVCOG	**New Haven**	**Middlebury**	**M**	**L**	**M-H**						**M**	**M**		**L-M**	**H**	**H**				**M**		**H**	**M**		**L-M**	**H**	**H**
NVCOG	**New Haven**	**Naugatuck**	**M-H**	**L**	**M-H**						**M**	**M**		**L-M**	**H**	**H**	**L**			**M**		**H**	**M**		**L-M**	**H**	**H**
NVCOG	**New Haven**	**Oxford**	**M-H**	**L**	**M**			**L**			**M**	**H**		**L**	**H**	**H**		**L**				**H**	**L**		**L**	**H**	**M**
NVCOG	**Litchfield**	**Plymouth**	**H**	**L-M**	**L**						**H**	**H**			**H**							**M-H**	**L-M**		**L-M**		**H**
NVCOG	**New Haven**	**Prospect**	**M-H**	**L**	**M**						**M**	**L-M**		**L-M**	**H**	**H**				**M**		**H**	**M**		**L-M**	**H**	**H**
NVCOG	**New Haven**	**Seymour**	**L**		**M-H**						**M-H**	**M-H**		**L-M**	**H**	**M-H**		**M**		**M**		**H**	**H**		**M**	**H**	**H**
NVCOG	**Fairfield**	**Shelton**	**L**		**M-H**						**M-H**	**M-H**		**M**	**H**	**M-H**		**M**		**M**		**H**	**H**		**M**	**H**	**H**
NVCOG	**New Haven**	**Southbury**	**M-H**	**L**	**M-H**						**M**	**M**		**L-M**	**H**	**H**	**M-H**					**H**	**M**		**L-M**	**H**	**H**
NVCOG	**Litchfield**	**Thomaston**	**H**	**L**	**M-H**						**M**	**M**		**L-M**	**H**	**H**	**L**			**M**		**H**	**M-H**		**L-M**	**H**	**H**
NVCOG	**New Haven**	**Waterbury**	**M-H**	**L**	**M**						**H**	**M-H**		**L-M**	**H**	**M-H**		**M-H**		**M**		**H**	**M**		**L**	**H**	**H**
NVCOG	**Litchfield**	**Watertown**	**M**	**L**	**M**						**M**	**H**		**L**	**M**			**L**				**H**	**M**		**L**	**M**	**H**
NVCOG	**New Haven**	**Wolcott**	**M-H**	**L**	**M-H**						**M**	**M-H**		**L-M**	**H**	**H**				**M**		**H**	**M**		**L-M**	**H**	**H**
NVCOG	**Litchfield**	**Woodbury**	**M**	**L**	**M**						**M**	**H**		**L**	**M-H**			**L**				**M-H**	**M**		**L**	**M-H**	**M-H**
SCRCOG	**New Haven**	**Bethany**	L	L	L	M	M	M	L		M	H		M	H	H				M	L	M	M		L	M	H
SCRCOG	**New Haven**	**Branford**	L	L	L	M	M	M	H		M	H		M	H	H				M	M	M	M		L	M	H
SCRCOG	**New Haven**	**East Haven**	L-M		M	M			H		M-H	H		L-M	H	M				M	H	H	H		L-M	H	H
SCRCOG	**New Haven**	**Guilford**	L		M	H			H		M	M-H		L-M	H	M-H				M	H	H	H		L-M	H	H
SCRCOG	**New Haven**	**Hamden**	L	L	L	M	M	M	M		M	H		M	H	H				M	M	M	M		L	M	H
SCRCOG	**New Haven**	**Madison**	L	L	L	M	M	M	H		M	H		M	H	H				M	M	M	M		L	M	H
SCRCOG	**New Haven**	**Meriden**	M		M						M-H	H		L-M	H	H				M		H	H		L-M	H	H
SCRCOG	**New Haven**	**Milford**	M-H	M	M	H			H		H	H			H	M-H		L				M-H	L-M	L	L	H	M-H
SCRCOG	**New Haven**	**New Haven**			M-H	M-H			H		M	M-H		M	M-H	H		L-M	L-M	H	H	H	L-M			H	H
SCRCOG	**New Haven**	**North Branford**	L	L	L	M	M	M	L		M	H		M	H	H				M	L	M	M		L	M	H
SCRCOG	**New Haven**	**North Haven**	L	L	L	M	M	M	M		M	H		M	H	H				M	M	M	M		L	M	H
SCRCOG	**New Haven**	**Orange**	L	L	L	M	M	M	L		M	H		M	H	H				M	L	M	M		L	M	H
SCRCOG	**New Haven**	**Wallingford**	L	L	L	M	M	M	L		M	H		M	H	H				M	L	M	M		L	M	H
SCRCOG	**New Haven**	**West Haven**	L	L	L	M	M	M	H		M	H		M	H	H				M	M	M	M		L	M	H
SCRCOG	**New Haven**	**Woodbridge**	L	L	L	M	M	M	L		M	H		M	H	H				M	L	M	M		L	M	H
SCCOG	**New London**	**Bozrah**	**L-M**	**L**	**L-M**						**M**	**M-H**		**M**	**H**	**M-H**				**M-H**		**M-H**	**L-M**		**L**		H

SCCOG	New London	Colchester	L	L	L-M						M	M-H		M	H	M-H				M-H		M-H	L-M		M		H
SCCOG	New London	East Lyme	L	L	L-M				H		M	H		M	H	M-H				M-H	L	M-H	L-M		L-M		H
SCCOG	New London	Franklin	L	L	L-M						M	L-M		M	H	M-H				M-H		M-H	L-M		L-M		H
SCCOG	New London	Griswold	M-H	L	L-M						M-H	H		M	H	M-H				M-H		M-H	L-M		M-H		H
SCCOG	New London	Groton (City)	L	L	L-M				M		L-M	L		M	H	M-H				M-H	L	M-H	L-M		L		H
SCCOG	New London	Groton (Town)	L	L	L-M				H		M	H		M	H	M-H				M-H	L	M-H	L-M		L		H
SCCOG	New London	Lebanon	L	L	L-M							M		M	H	M-H						M-H	M		L-M		H
SCCOG	New London	Ledyard	L	L	L-M						M-H	M-H		M	H	M-H				M-H		M-H	L-M		L		H
SCCOG	New London	Lisbon	L	L	L-M						M	L		M	H	M-H				M-H		M-H	L-M		L-M		H
SCCOG	Unaffiliated	Mashantucket Pequot Tribal Nation	L	L	L-M				H		L	L		M	H	M-H				M		M-H	L-M		L-M		H
SCCOG	Unaffiliated	Mohegan Tribe	L	L	L-M				L		L	L		M	H	M-H				M		M-H	L-M		L		H
SCCOG	New London	Montville	M	L	L-M						M	L-M		M	H	M-H				M-H		M-H	L-M		M		H
SCCOG	New London	New London	L	L	L-M				H		M-H	L		M	H	M-H				M-H	L	M-H	L-M		L		H
SCCOG	New London	North Stonington	L	L	L-M				H		M	M-H		M	H	M-H				M-H	L	M-H	L-M		M		H
SCCOG	New London	Norwich	M	L	L-M						M	H		M	H	M-H	L			M-H		M-H	L-M		L-M		H
SCCOG	New London	Preston	L	L	L-M						M	H		M	H	M-H				M-H		M-H	L-M		L-M		H
SCCOG	New London	Salem	L	L	L-M						M-H	L-M		M	H	M-H				M-H		M-H	L-M		L		H
SCCOG	New London	Sprague	M	L	L-M						M-H	M-H		M	H	M-H	L-M			M-H		M-H	L-M		L-M		H
SCCOG	New London	Stonington (Borough)	L	L	L-M				H		M	L		M	H	M-H				M-H	L	M-H	L-M		L-M		H
SCCOG	New London	Stonington (Town)	M	L	L-M				H		M-H	H		M	H	M-H				M-H	L	M-H	L-M		L-M		H
SCCOG	New London	Waterford	L-M	L	L-M				H		M-H	M-H		M	H	M-H				M-H	L	M-H	L-M		M		H
SCCOG	Windham	Windham	M-H	L	L-M						M	M-H		M	M-H	M-H						M-H	L		L		H
CRCOG	Tolland	Andover	M-H	L	L-M							L-M			M-H								M		L-M		H
CRCOG	Tolland	Bolton	M-H	L	L-M							L-M			M-H								M		L		H
CRCOG	Tolland	Columbia	L-M	L	L-M							M			H		L					M	L-M		L-M		H
CRCOG	Tolland	Coventry	L-M	L	L-M							M			H		L					M	L-M		L-M		H
CRCOG	Tolland	Ellington	M-H	L	L-M							M-H			M-H								M		L		H
CRCOG	Tolland	Hebron	M-H	L	L-M							M-H			M-H								M		L		H
CRCOG	Tolland	Mansfield	H	L	L-M							H			M-H		L-M					M	M		L-M		H
CRCOG	Tolland	Somers	M-H	L	L-M							M-H			M-H								M		L		H
CRCOG	Tolland	Stafford	H	L	L-M							M-H			M-H								M		L		H
CRCOG	Tolland	Tolland	M-H	L	L-M							M-H			M-H								M		M		H

CRCOG	**Tolland**	**Vernon**	**M-H**	**L**	**L-M**							**M-H**			**M-H**								**M**		**L**		**H**
CRCOG	**Tolland**	**Willington**	M-H	**L**	**L-M**							**M-H**			M-H		L					M	M		L-M		H
NECOG	**Windham**	**Ashford**	**M-H**	**L**	**L-M**	**L**						**H**		**M**	**M-H**					**H**		**H**	**M**			**H**	**H**
NECOG	**Windham**	**Brooklyn**	**L**	**L**	**L-M**	**L**						**H**		**M**	**M-H**					**H**		**H**	**M**			**H**	**H**
NECOG	**Windham**	**Canterbury**		**L**	**L-M**	**L**						**H**		**M**	**M-H**					**H**		**H**	**M**			**H**	**H**
NECOG	**Windham**	**Chaplin**	**L**	**L**	**L-M**	**L**						**H**		**M**	**M-H**					**H**		**H**	**M**			**H**	**H**
NECOG	**Windham**	**Eastford**		**L**	**L-M**	**L**						**H**		**M**	**M-H**					**H**		**H**	**M**			**H**	**H**
NECOG	**Windham**	**Hampton**		**L**	**L-M**	**L**						**H**		**M**	**M-H**					**H**		**H**	**M**			**H**	**H**
NECOG	**Windham**	**Killingly**	**M-H**	**L**	**L-M**	**L**						**H**		**M**	**M-H**					**H**		**H**	**M**			**H**	**H**
NECOG	**Windham**	**Plainfield**	**M**	**L**	**L-M**	**L**						**H**		**M**	**M-H**					**H**		**H**	**M**			**H**	**H**
NECOG	**Windham**	**Pomfret**	**M-H**	**L**	**L-M**	**L**						**H**		**M**	**M-H**					**H**		**H**	**M**			**H**	**H**
NECOG	**Windham**	**Putnam**		**L**	**L-M**	**M-H**						**H**		**M**	**M-H**					**H**		**H**	**M**			**H**	**H**
NECOG	**Windham**	**Scotland**		**L**	**L-M**	**L**						**H**		**M**	**M-H**					**H**		**H**	**M**			**H**	**H**
NECOG	**Windham**	**Sterling**	**M**	**L**	**L-M**	**L**						**H**		**M**	**M-H**					**H**		**H**	**M**			**H**	**H**
NECOG	**Windham**	**Thompson**	**M-H**	**L**	**L-M**	**L**						**H**		**M**	**M-H**					**H**		**H**	**M**			**H**	**H**
NECOG	**Tolland**	**Union**	**L**	**L**	**L-M**	**L**						**H**		**M**	**M-H**					**H**		**H**	**M**			**H**	**H**
NECOG	**New London**	**Voluntown**	**M-H**	**L**	**L-M**	**L**						**H**		**M**	**M-H**					**H**		**H**	**M**			**H**	**H**
NECOG	**Windham**	**Woodstock**	**M**	**L**	**L-M**	**L**						**H**		**M**	**M-H**					**H**		**H**	**M**			**H**	**H**
		Total # Plans that Ranked Hazard	**167**	**147**	**172**	**48**	**26**	**30**	**47**	**29**	**78**	**171**	**6**	**96**	**163**	**82**	**22**	**12**	**3**	**98**	**35**	**124**	**165**	**11**	**147**	**96**	**173**
		Low Ranking	44	101	67	28	2	6	10	0	3	6	6	14	0	0	11	5	0	3	14	0	15	3	67	0	0
		Low to Moderate Ranking	11	2	68	1	0	0	0	3	2	6	0	19	1	6	3	2	2	1	5	0	55	0	38	5	0
		Moderate Ranking	27	42	22	13	22	21	4	4	46	18	0	63	12	4	6	4	1	45	5	17	85	8	23	13	3
		Moderate to High Ranking	61	0	15	3	0	0	10	5	21	57	0	0	62	38	2	1	0	22	0	44	3	0	14	18	11
		High Ranking	24	2	0	2	2	3	21	17	6	84	0	0	88	34	0	0	0	27	11	63	7	0	4	60	159
		Average Hazard Ranking	**3.06**	**1.64**	**1.91**	**1.90**	**3.00**	**2.80**	**3.55**	**4.24**	**3.32**	**4.21**	**1.00**	**2.51**	**4.45**	**4.22**	**1.95**	**2.08**	**2.33**	**3.70**	**2.69**	**4.37**	**2.59**	**2.45**	**1.96**	**4.39**	**4.90**
		Average Hazard Description	**M**	**L-M**	**L-M**	**L-M**	**M**	**M**	**M-H**	**M-H**	**M**	**M-H**	**L**	**M**	**M-H**	**M-H**	**L-M**	**L-M**	**L-M**	**M-H**	**M**	**M-H**	**M**	**L-M**	**L-M**	**M-H**	**H**

Hazard Ranking Scheme:

			Not Assessed
0	0.5	L	Low
1	1.5	L-M	Low to Moderate
2	2.5	M	Moderate
3	3.5	M-H	Moderate to High
4	4.5	H	High

M L-M L-M L-M M M M-H M-H M M-H L M M-H M-H L-M L-M L-M M-H M M-H M L-M L-M M-H H

Hazard Identification and Ranking

ADDITIONAL HAZARDS SPECIFIC TO LOCAL PLAN

RPO	County	Community or Tribe	METHODOLOGY	Methodology - Simplified	Avalanche	Bio., Radio. & Epidemic	Civil Disturbance	Coastal Storm	Communications	Dam	Debris Flow	Disease & Epidemics	Drought	Earthquake	Erosion	Extreme Cold	Extreme Heat	Flood	Hail	HazMat	Hurricane	Infestation	Karst	Landslide	Lightning	Mine Subsidence	Resource Shortage	Technological	Terrorism	Thunderstorm	Tornado	Tsunami	Urban Fire	Utility Failure	Water Drainage	Wildfire	Wind	Winter Storm including Blizzard & Ice	Climate Change as Amplifier	Transportation - Fog	Fire/Explosion	Transportation - Vehicular Accidents	Nor'easter	Rail Accident Hazmat	Shoreline & Sea Level Rise	Air Accidents	Brush Fires	Storm Surge	Heavy Rain	Power Outage	Groundwater Pollution	Metrorail Emergency	Disruption of Water Supply	Railroad Derailment	Water Pollution/Illegal Dumping/Land Pollution	Highway Traffic	Civil Strikes	Collapsed Building	Conflagration	Waterway Accident
MetroCOG	Fairfield	Bridgeport	Based on hazard history, FEMA information, comments from the public	FEMA FIRM, Backwater Zones, FIS, Supplement Wave Height Analyses, historical frequency	N/A	N/A	N/A	N/A	N/A	3 Class C dams; Low probability but could occur during large rain events. Low-Moderate Risk	N/A	N/A	N/A	Low	N/A	N/A	N/A	Highly subject to riverine and coastal flooding. Moderate-High Risk	the risk of at least one hailstorm occurring in the Region is moderate in any given year	N/A	Hurricanes could affect any area in the region; Bridgeport and Fairfield are particularly susceptible	N/A	N/A	N/A	Lightning is usually associated with thunderstorms, but can occur on almost any day. Several areas of the Region are more susceptible than others, due to striking elevation changes and associated with tall buildings in downtown Bridgeport.	N/A	N/A	N/A	N/A	The entire region is susceptible to summer storms	the risk to the Region is believed to be low to moderate for any given year	N/A	N/A	N/A	June 11, 2000 - thunderstorm at Sikorsky Airport in Bridgeport: some flooding of low-lying and poor drainage areas	N/A	Associated with hurricanes, summer storms, tornados, winter storms	The likelihood of a nor'easter occurring in any given winter is considered high, and the likelihood of other winter storms occurring in any given winter is very high.	N/A	N/A	N/A	N/A	The likelihood of a nor'easter occurring in any given winter is considered high	N/A	mentioned under Coastal Flooding	N/A	N/A	mentioned under hurricanes and coastal flooding	mentioned under hurricanes, summer storms and inland flooding	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MetroCOG	Fairfield	Easton	Based on hazard history, FEMA information, comments from the public	FEMA FIRM, Backwater Zones, FIS, Supplement Wave Height Analyses, historical frequency	N/A	N/A	N/A	N/A	N/A	2 Class C dams; Low probability but could occur during large rain events. Low-Moderate Risk	N/A	N/A	N/A	Low	N/A	N/A	N/A	Highly subject to riverine flooding; Moderate Risk	the risk of at least one hailstorm occurring in the Region is moderate in any given year	N/A	Hurricanes could affect any area in the region; Bridgeport and Fairfield are particularly susceptible	N/A	N/A	N/A	Lightning is usually associated with thunderstorms, but can occur on almost any day. Several areas of the Region are more susceptible than others, due to striking elevation changes and associated with tall buildings in downtown Bridgeport.	N/A	N/A	N/A	N/A	The entire region is susceptible to summer storms	the risk to the Region is believed to be low to moderate for any given year	N/A	N/A	N/A	N/A	N/A	Associated with hurricanes, summer storms, tornados, winter storms	The likelihood of a nor'easter occurring in any given winter is considered high, and the likelihood of other winter storms occurring in any given winter is very high.	N/A	N/A	N/A	N/A	The likelihood of a nor'easter occurring in any given winter is considered high	N/A	N/A	N/A	N/A	N/A	mentioned under hurricanes, summer storms and inland flooding	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MetroCOG	Fairfield	Fairfield	Based on hazard history, FEMA information, comments from the public	FEMA FIRM, Backwater Zones, FIS, Supplement Wave Height Analyses, historical frequency	N/A	N/A	N/A	N/A	N/A	2 Class C dams; Low probability but could occur during large rain events. Low-Moderate Risk	N/A	N/A	N/A	Low	N/A	N/A	N/A	Highly subject to riverine and coastal flooding. Moderate-High Risk	the risk of at least one hailstorm occurring in the Region is moderate in any given year	N/A	Hurricanes could affect any area in the region; Bridgeport and Fairfield are particularly susceptible	N/A	N/A	N/A	Lightning is usually associated with thunderstorms, but can occur on almost any day. Several areas of the Region are more susceptible than others, due to striking elevation changes and associated with tall buildings in downtown Bridgeport.	N/A	N/A	N/A	N/A	The entire region is susceptible to summer storms	the risk to the Region is believed to be low to moderate for any given year	N/A	N/A	N/A	N/A	N/A	Associated with hurricanes, summer storms, tornados, winter storms	The likelihood of a nor'easter occurring in any given winter is considered high, and the likelihood of other winter storms occurring in any given winter is very high.	N/A	N/A	N/A	N/A	The likelihood of a nor'easter occurring in any given winter is considered high	N/A	mentioned under Coastal Flooding	N/A	N/A	mentioned under hurricanes and coastal flooding	mentioned under hurricanes, summer storms and inland flooding	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MetroCOG	Fairfield	Monroe	Based on hazard history, FEMA information, comments from the public	FEMA FIRM, Backwater Zones, FIS, Supplement Wave Height Analyses, historical frequency	N/A	N/A	N/A	N/A	N/A	1 Class C dam; Low probability but could occur during large rain events. Low Risk	N/A	N/A	N/A	Low	N/A	N/A	N/A	Highly subject to riverine flooding; Moderate Risk	the risk of at least one hailstorm occurring in the Region is moderate in any given year	N/A	Hurricanes could affect any area in the region; Bridgeport and Fairfield are particularly susceptible	N/A	N/A	N/A	Lightning is usually associated with thunderstorms, but can occur on almost any day. Several areas of the Region are more susceptible than others, due to striking elevation changes and associated with tall buildings in downtown Bridgeport.	N/A	N/A	N/A	N/A	The entire region is susceptible to summer storms	the risk to the Region is believed to be low to moderate for any given year	N/A	N/A	N/A	N/A	N/A	Associated with hurricanes, summer storms, tornados, winter storms	The likelihood of a nor'easter occurring in any given winter is considered high, and the likelihood of other winter storms occurring in any given winter is very high.	N/A	N/A	N/A	N/A	The likelihood of a nor'easter occurring in any given winter is considered high	N/A	N/A	N/A	N/A	N/A	mentioned under hurricanes, summer storms and inland flooding	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MetroCOG	Fairfield	Stratford	Based on hazard history, FEMA information, comments from the public, Town drainage study	FEMA FIRM, Backwater Zones, FIS, Supplement Wave Height Analyses, historical frequency, Town drainage study	N/A	N/A	N/A	N/A	N/A	1 Class C dam; Low probability but could occur during large rain events. Low Risk	N/A	N/A	N/A	Low	N/A	N/A	N/A	Highly subject to riverine and coastal flooding. Moderate-High Risk	the risk of at least one hailstorm occurring in the Region is moderate in any given year	N/A	Hurricanes could affect any area in the region; Stratford is particularly susceptible	N/A	N/A	N/A	Lightning is usually associated with thunderstorms, but can occur on almost any day. Several areas of the Region are more susceptible than others, due to striking elevation changes and associated with tall buildings in downtown Bridgeport.	N/A	N/A	N/A	N/A	The entire region is susceptible to summer storms	the risk to the Region is believed to be low to moderate for any given year	N/A	N/A	N/A	Storm drainage backup causes flooding in the Albert Avenue and Albright Avenue area. Several residential structures have reported repeated flooding, one has listed repeated flood insurance claims.	N/A	Associated with hurricanes, summer storms, tornados, winter storms	The likelihood of a nor'easter occurring in any given winter is considered high, and the likelihood of other winter storms occurring in any given winter is very high.	N/A	N/A	N/A	N/A	The likelihood of a nor'easter occurring in any given winter is considered high	N/A	mentioned under Coastal Flooding	N/A	N/A	mentioned under hurricanes and coastal flooding	mentioned under hurricanes, summer storms and inland flooding	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MetroCOG	Fairfield	Trumbull	See methodology description for Bridgeport, Easton, Fairfield, and Monroe above	See regional description for Bridgeport, Easton, Fairfield, and Monroe above	N/A	N/A	N/A	N/A	N/A	3 Class C dams; Low probability but could occur during large rain events. Low-Moderate Risk	N/A	N/A	N/A	Low	N/A	N/A	N/A	Highly subject to riverine flooding; Moderate Risk	the risk of at least one hailstorm occurring in the Region is moderate in any given year	N/A	Hurricanes could affect any area in the region; Bridgeport and Fairfield are particularly susceptible	N/A	N/A	N/A	Lightning is usually associated with thunderstorms, but can occur on almost any day. Several areas of the Region are more susceptible than others, due to striking elevation changes and associated with tall buildings in downtown Bridgeport.	N/A	N/A	N/A	N/A	The entire region is susceptible to summer storms	the risk to the Region is believed to be low to moderate for any given year	N/A	N/A	N/A	N/A	N/A	Associated with hurricanes, summer storms, tornados, winter storms	The likelihood of a nor'easter occurring in any given winter is considered high, and the likelihood of other winter storms occurring in any given winter is very high.	N/A	N/A	N/A	N/A	The likelihood of a nor'easter occurring in any given winter is considered high	N/A	N/A	N/A	N/A	N/A	mentioned under hurricanes, summer storms and inland flooding	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WestCOG	Fairfield	Bethel	Based on hazard history, FEMA information, comments from the public	HAZUS-MH; qualitative and historical data for other hazards	N/A	N/A	N/A	N/A	N/A	23 dams total: 1 Class C. Low-Moderate Risk	N/A	N/A	Mentioned as Low for entire county.	Low to Moderate	N/A	N/A	Low	Subject to riverine and poor drainage flooding; assume Moderate-High	Low to Moderate; listed under severe storms and hurricane	N/A	Moderate	N/A	N/A	N/A	Low to Moderate	N/A	N/A	N/A	N/A	High	Low: associated with thunderstorms but damages not as common	N/A	N/A	N/A	N/A	Low: town believes current equipment and staff are capable	N/A	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WestCOG	Litchfield	Bridgewater	Based on hazard history, FEMA information, comments from the public	HAZUS-MH; qualitative and historical data for other hazards	N/A	N/A	N/A	N/A	N/A	18 dams total: 2 Class BB. Low Risk	N/A	N/A	Mentioned as Low for entire county.	Low to Moderate	N/A	N/A	N/A	Subject to riverine and poor drainage flooding; assume Moderate-High	Discussed with summer storms and tornadoes (Low-Moderate)	N/A	Moderate-High	N/A	N/A	N/A	Discussed with summer storms and tornadoes	N/A	N/A	N/A	N/A	Moderate-High	Moderate based upon past occurrences; associated with thunderstorms	N/A	N/A	N/A	N/A	Moderate risk for small wildfires; low risk for large wildfires. Assume Low.	Discussed with hurricanes, winter and t-storms/tornadoes; source for numerous power outages (Moderate-High)	High: associated with ice storms, nor-easters, blizzards, sleet and heavy snow. Power outages most common from winter storm-downed trees	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Discussed with summer storms and tornadoes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WestCOG	Fairfield	Brookfield	Based on hazard history, FEMA information, comments from the public	HAZUS-MH; qualitative and historical data for other hazards	N/A	N/A	N/A	N/A	N/A	18 dams total: 1 Class BB. Low Risk	N/A	N/A	Mentioned as Low for entire regoin.	Low to Moderate	N/A	N/A	N/A	Subject to riverine and poor drainage flooding; assume Moderate-High	Discussed with summer storms and tornadoes (Low-Moderate)	N/A	Moderate-High	N/A	N/A	N/A	Discussed with summer storms and tornadoes; damage can be extensive, but infrequent occurrence. Assume moderate.	N/A	N/A	N/A	N/A	Moderate-High	Moderate based upon past occurrences; associated with thunderstorms	N/A	N/A	N/A	N/A	Considered likely event each year, but generally contained to a small range with limited damage to nonforested areas. Assume Low.	Discussed with hurricanes, winter and t-storms/tornadoes; source for numerous power outages (Moderate-High)	High: associated with ice storms, nor-easters, blizzards, sleet and heavy snow. Power outages most common from winter storm-downed trees	Mentioned in 2014 HMP under Climate: The continued increase in precipitation only heightens the need for hazard mitigation planning as the occurrence of floods may change in accordance with the greater precipitation. (Covered in Flood)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Discussed with summer storms and tornadoes, hurricanes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WestCOG	Fairfield	Danbury	Based on hazard history, FEMA information, comments from the public	HAZUS-MH; qualitative and historical data for other hazards	N/A	N/A	N/A	N/A	N/A	3 Class C dams, 1 class C upstream Moderate-High	N/A	N/A	Noted as Low	Low to Moderate. Unlikely; however, if so, city is at increased risk due to amplification of energy and collapse (sand and gravel)	N/A	N/A	N/A	Moderate to High; Low potential for ice jam flooding	Moderate	N/A	High	N/A	N/A	N/A	Moderate	N/A	N/A	N/A	N/A	Moderate to High	Moderate	N/A	N/A	N/A	Moderate; associated with flooding	Low	High	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WestCOG	Fairfield	New Fairfield	Based on hazard history, FEMA information, comments from the public & municipal staff	HAZUS-MH for flood, wind, and earthquakes; qualitative and historical data for other hazards; municipal staff meeting	N/A	N/A	N/A	N/A	N/A	Moderate	N/A	N/A	Noted as Low	Low-Moderate due to isolation	N/A	N/A	N/A	Moderate Low for ice jams Moderate from poor drainage/flash flooding	Moderate	N/A	High	N/A	N/A	N/A	Moderate	N/A	N/A	N/A	N/A	High due to high elevation and heavily treed landscape	Low to Moderate (based on county location)	N/A	N/A	N/A	Low to Moderate	Moderate	High	High Ice is a problem in hillier sections	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WestCOG	Litchfield	New Milford	Based on hazard history, FEMA information, comments from the public & municipal staff	HAZUS-MH for flood, wind, and earthquakes; qualitative and historical data for other hazards; municipal staff meeting	N/A	N/A	N/A	N/A	N/A	Moderate-High: failure of Candlewood Lake Dam would be severe, many other dams of lower hazard class but of concern to town	N/A	N/A	N/A	Low-Moderate Many sand/gravel areas with increased risk, but location in floodplain means limited development. Isolation risk	Low: Bridge scour	N/A	N/A	High Low-Mod ice jam risk @ Lover's Leap Gorge Low risk from poor drainage flooding	Moderate	M	High tree damage during all storms, critical facilities at risk	H	M	Low-Moderate areas along grove street & rt 7 at risk	L-M	H	H	N/A	N/A	High	Moderate (based on county location)	N/A	N/A	N/A	Low	Low-Moderate Accessibility in north is limited	High due to hilliness	Icing an issue on Route 7; snow drift an issue in north High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WestCOG	Fairfield	Newtown	Based on hazard history, FEMA information, comments from the public & municipal staff	Hazard Profiles, Historical Frequency, Future Probability, Vulnerability	N/A	N/A	N/A	N/A	N/A	Moderate	N/A	N/A	N/A	Low	Low: Pond Brook Scour	N/A	N/A	Moderate-High	Moderate	N/A	Moderate-High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Moderate-High	Moderate-High (based on county location)	N/A	N/A	N/A	Moderate: affects rlps	Low	Moderate-High	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WestCOG	Fairfield	Redding	Based on hazard history, FEMA information, comments from the public & municipal staff	historical frequency, local and state feedback, spatial analyses, municipal staff meeting	N/A	N/A	N/A	N/A	N/A	Low	N/A	N/A	N/A	Low-Moderate	N/A	N/A	N/A	Moderate-High occasional State Route closures	Low	N/A	Moderate-High	N/A	N/A	N/A	Low	N/A	N/A	N/A	N/A	Moderate-High	Moderate-High (based on county location)	N/A	N/A	N/A	N/A	Low	Low	High Icing issue of Rt 53, in NW	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WestCOG	Fairfield	Ridgefield	No plan	historical frequency, local and state feedback, spatial analyses	N/A	N/A	N/A	N/A	N/A	Moderate	N/A	N/A	N/A	Low	N/A	N/A	N/A	Moderate-High persistent risk from poor drainage	N/A	N/A	High EOC vulnerable	N/A	N/A	N/A	Low	N/A	N/A	N/A	N/A	Moderate	Moderate-High (based on county location)	N/A	N/A	N/A	High	Low	Low	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WestCOG	Fairfield	Sherman	Based on hazard history, FEMA information, comments from the public	HAZUS-MH for wind and earthquakes; qualitative and historical data for other hazards	N/A	N/A	N/A	N/A	N/A	Low	N/A	N/A	N/A	Low	N/A	N/A	N/A	Low-Moderate Isolation risk from flooded roads Low risk of ice jams	Moderate	N/A	Moderate fallen branches, flooding	N/A	N/A	N/A	Moderate	N/A	N/A	N/A	N/A	High fallen branches: high	Moderate-High (based on county location)	N/A	N/A	N/A	Low to Moderate	Low to Moderate	High due to hilliness fallen branches	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SWestCOG	Fairfield	Darien	Based upon historical events, research, computer-based spatial analyses, and feedback from local and state officials, the Advisory Committee and the general public	historical frequency, local and state feedback, spatial analyses; and 2016-2021 Update for South Western Region	N/A	N/A	N/A	Discussed as part of Hurricanes, Storm Surge and Flood	N/A	Likelihood greatest with flood, hurricanes, and earthquakes; Increased risk downstream of Class C dams; parts of Weston, Westport, New Canaan, Norwalk, and Wilton are in dam inundation zones (not so much with Darien)	N/A	N/A	Most impacted would be the 30% of residents in the region served by wells.	Moderate Risk due to artificial fill - liquefaction: a magnitude 4 or higher earthquake is likely to occur approximately once every 25 years or 4% chance of occurrence in any given year	Low mentioned in text (2016-2021 Update for South Western Region)	High, based upon the municipality's geographic cover, past events with pipes freezing/bursting and high energy costs heating buildings (2016-2021 Update for South Western Region)	High, based upon geographic cover and frequent past events that lead to droughts, health risks/deaths, scattered power outages (business losses) (2016-2021 Update for South Western Region)	Including coastal and storm surge: assume moderate-high; one of the most frequent natural disasters	Mentioned as a low risk hazard in this municipality	N/A	High, based upon geographic cover, maximum probable extent (magnitude strength) and probability of future events (2016-2021 Update for South Western Region)	N/A	N/A	N/A	Moderate, based upon geographic cover, maximum probable extent (magnitude strength) and probability of future events (2016-2021 Update for South Western Region)	N/A	N/A	N/A	N/A	High, based upon geographic cover, maximum probable extent (magnitude strength) and probability of future events (2016-2021 Update for South Western Region)	Assume Low based upone text in current HMP. A tornado is likely to occur about once every twenty five years or 4% in any given year	Impacts are listed similar to those of storm surge and coastal flooding events. Assume Moderate	N/A	N/A	N/A	Risk increases when drought conditions are present. Current HMP implies Low risk.	Discussed as part of severe thunderstorms	Ranked as a High hazard. Severe storm, including winter storms, likely to occur once every five years or 20% chance of occurrence in any given year	Multiple impacts due to climate change are dispersed throughout the region; rank not provided.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SWestCOG	Fairfield	Greenwich	Based upon historical events, research, computer-based spatial analyses, and feedback from local and state officials, the Advisory Committee and the general public	historical frequency, local and state feedback, spatial analyses; and 2016-2021 Update for South Western Region	N/A	N/A	N/A	Discussed as part of Hurricanes, Storm Surge and Flood	N/A	6 Class C dams: likelihood greatest with flood, hurricanes and earthquakes; increased risk downstream of Class C dams	N/A	N/A	Most impacted would be the 30% of residents in the region served by wells.	Moderate Risk due to artificial fill - liquefaction: a magnitude 4 or higher earthquake is likely to occur approximately once every 25 years or 4% chance of occurrence in any given year	Low mentioned in text (2016-2021 Update for South Western Region)	Moderate, based upon past events, geographic area covered within the municipality and high energy costs heating buildings (2016-2021 Update for South Western Region)	High, based upon geographic cover and frequent past events that lead to droughts, health risks/deaths, scattered power outages (business losses) (2016-2021 Update for South Western Region)	Including coastal and storm surge: assume moderate-high; one of the most frequent natural disasters	Mentioned as a low risk hazard in this municipality	N/A	High, based upon geographic cover, maximum probable extent (magnitude strength) and probability of future events (2016-2021 Update for South Western Region)	N/A	N/A	N/A	Low, based upon geographic cover, maximum probable extent (magnitude strength) and probability of future events (2016-2021 Update for South Western Region)	N/A	N/A	N/A	N/A	High, based upon geographic cover, maximum probable extent (magnitude strength) and probability of future events (2016-2021 Update for South Western Region)	Assume Low based upone text in current HMP. A tornado is likely to occur about once every twenty five years or 4% in any given year	N/A	N/A	N/A	N/A	Risk increases when drought conditions are present. Current HMP implies Low risk.	Discussed as part of severe thunderstorms	Ranked as a High hazard. Severe storm, including winter storms, likely to occur once every five years or 20% chance of occurrence in any given year	Multiple impacts due to climate change are dispersed throughout the region; rank not provided.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SWestCOG	Fairfield	New Canaan	Based upon historical events, research, computer-based spatial analyses, and feedback from local and state officials, the Advisory Committee and the general public	historical frequency, local and state feedback, spatial analyses; and 2016-2021 Update for South Western Region	N/A	N/A	N/A	Discussed as part of Hurricanes, Storm Surge and Flood	N/A	3 Class C dams: likelihood greatest with flood, hurricanes and earthquakes; increased risk downstream of Class C dams	N/A	N/A	Most impacted would be the 30% of residents in the region served by wells.	Moderate Risk: a magnitude 4 or higher earthquake is likely to occur approximately once every 25 years or 4% chance of occurrence in any given year	Low mentioned in text (2016-2021 Update for South Western Region)	High, based upon the municipality's geographic cover, past events with pipes freezing/bursting and high energy costs heating buildings (2016-2021 Update for South Western Region)	High, based upon geographic cover and frequent past events that lead to droughts, health risks/deaths, scattered power outages (business losses) (2016-2021 Update for South Western Region)	Including coastal, storm surge and flash flooding: assume low-moderate; one of the most frequent natural disasters	Mentioned as a low risk hazard in this municipality	N/A	High, based upon geographic cover, maximum probable extent (magnitude strength) and probability of future events (2016-2021 Update for South Western Region)	N/A	N/A	N/A	Low, based upon geographic cover, maximum probable extent (magnitude strength) and probability of future events (2016-2021 Update for South Western Region)	N/A	N/A	N/A	N/A	High, based upon geographic cover, maximum probable extent (magnitude strength) and probability of future events (2016-2021 Update for South Western Region)	Assume Low-Moderate based upone text in current HMP. A tornado is likely to occur about once every twenty five years or 4% in any given year	N/A	N/A	N/A	N/A	Risk increases when drought conditions are present. Current HMP implies Low risk.	Discussed as part of severe thunderstorms	Ranked as a High hazard. Severe storm, including winter storms, likely to occur once every five years or 20% chance of occurrence in any given year	Multiple impacts due to climate change are dispersed throughout the region; rank not provided.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SWestCOG	Fairfield	Norwalk	Based upon historical events, research, computer-based spatial analyses, and feedback from local and state officials, the Advisory Committee and the general public	historical frequency, local and state feedback, spatial analyses; and 2016-2021 Update for South Western Region	N/A	N/A	N/A	Discussed as part of Hurricanes, Storm Surge and Flood	N/A	1 Class C dam: likelihood greatest with flood, hurricanes and earthquakes; increased risk downstream of Class C dams	N/A	N/A	Most impacted would be the 30% of residents in the region served by wells.	Low-Moderate Risk due to artificial fill - liquefaction: a magnitude 4 or higher earthquake is likely to occur approximately once every 25 years or 4% chance of occurrence in any given year	Low mentioned in text (2016-2021 Update for South Western Region)	Low, based upon past events and geographic area, mentioned in text (2016-2021 Update for South Western Region)	Low, based upon geographic cover and frequent past events that lead to droughts, health risks/deaths, scattered power outages (business losses) (2016-2021 Update for South Western Region)	Including coastal and storm surge: assume moderate-high; one of the most frequent natural disasters	N/A	N/A	Moderate, based upon geographic cover, maximum probable extent (magnitude, strength) and probability of future events (2016-2021 Update for South Western Region)	N/A	N/A	N/A	Low, based upon geographic cover, maximum probable extent (magnitude strength) and probability of future events (2016-2021 Update for South Western Region)	N/A	N/A	N/A	N/A	High, based upon geographic cover, maximum probable extent (magnitude strength) and probability of future events (2016-2021 Update for South Western Region)	Assume Low based upone text in current HMP. A tornado is likely to occur about once every twenty five years or 4% in any given year	N/A	N/A	N/A	N/A	Risk increases when drought conditions are present. Current HMP implies Low risk.	Discussed as part of severe thunderstorms	Ranked as a High hazard. Severe storm, including winter storms, likely to occur once every five years or 20% chance of occurrence in any given year	Multiple impacts due to climate change are dispersed throughout the region; rank not provided.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SWestCOG	Fairfield	Stamford	Based upon historical events, research, computer-based spatial analyses, and feedback from local and state officials, the Advisory Committee and the general public	historical frequency, local and state feedback, spatial analyses; and 2016-2021 Update for South Western Region	N/A	N/A	N/A	Discussed as part of Hurricanes, Storm Surge and Flood	N/A	2 Class C dams: likelihood greatest with flood, hurricanes and earthquakes; increased risk downstream of Class C dams	N/A	N/A	Most impacted would be the 30% of residents in the region served by wells.	Low-Moderate Risk due to artificial fill - liquefaction: a magnitude 4 or higher earthquake is likely to occur approximately once every 25 years or 4% chance of occurrence in any given year	Moderate-High mentioned in text (2016-2021 Update for South Western Region)	Moderate, based upon past events, geographic area covered within the municipality and high energy costs heating buildings (2016-2021 Update for South Western Region)	Moderate, based upon geographic cover and frequent past events that lead to droughts, health risks/deaths, scattered power outages (business losses) (2016-2021 Update for South Western Region)	Including coastal and storm surge: assume moderate-high; one of the most frequent natural disasters	N/A	N/A	Moderate-High, based upon geographic cover, maximum probable extent (magnitude, strength) and probability of future events (2016-2021 Update for South Western Region)	N/A	N/A	N/A	Moderate-High, based upon geographic cover, maximum probable extent (magnitude strength) and probability of future events (2016-2021 Update for South Western Region)	N/A	N/A	N/A	N/A	High, based upon geographic cover, maximum probable extent (magnitude strength) and probability of future events (2016-2021 Update for South Western Region)	Assume Low-Moderate based upone text in current HMP. A tornado is likely to occur about once every twenty five years or 4% in any given year	N/A	N/A	N/A	N/A	Risk increases when drought conditions are present. Current HMP implies Low risk.	Discussed as part of severe thunderstorms	Ranked as a High hazard. Severe storm, including winter storms, likely to occur once every five years or 20% chance of occurrence in any given year	Multiple impacts due to climate change are dispersed throughout the region; rank not provided.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SWestCOG	Fairfield	Weston	Based upon historical events, research, computer-based spatial analyses, and feedback from local and state officials, the Advisory Committee and the general public	historical frequency, local and state feedback, spatial analyses; and 2016-2021 Update for South Western Region	N/A	N/A	N/A	Discussed as part of Hurricanes, Storm Surge and Flood	N/A	1 Class C dam: likelihood greatest with flood, hurricanes and earthquakes; increased risk downstream of Class C dams	N/A	N/A	Most impacted would be the 30% of residents in the region served by wells.	Low Risk: a magnitude 4 or higher earthquake is likely to occur approximately once every 25 years or 4% chance of occurrence in any given year	Moderate mentioned in text (2016-2021 Update for South Western Region)	Moderate, based upon past events, geographic area covered within the municipality and high energy costs heating buildings (2016-2021 Update for South Western Region)	Low, based upon geographic cover and frequent past events that lead to droughts, health risks/deaths, scattered power outages (business losses) (2016-2021 Update for South Western Region)	Including coastal, storm surge and flash flooding: assume low-moderate; one of the most frequent natural disasters	N/A	N/A	High, based upon geographic cover, maximum probable extent (magnitude strength) and probability of future events (2016-2021 Update for South Western Region)	N/A	N/A	N/A	High, based upon geographic cover, maximum probable extent (magnitude strength) and probability of future events (2016-2021 Update for South Western Region)	N/A	N/A	N/A	N/A	High, based upon geographic cover, maximum probable extent (magnitude strength) and probability of future events (2016-2021 Update for South Western Region)	Assume Low-Moderate based upone text in current HMP. A tornado is likely to occur about once every twenty five years or 4% in any given year	N/A	N/A	N/A	N/A	Risk increases when drought conditions are present. Current HMP implies Low risk.	Discussed as part of severe thunderstorms	Ranked as a High hazard. Severe storm, including winter storms, likely to occur once every five years or 20% chance of occurrence in any given year	Multiple impacts due to climate change are dispersed throughout the region; rank not provided.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SWestCOG	Fairfield	Westport	Based upon historical events, research, computer-based spatial analyses, and feedback from local and state officials, the Advisory Committee and the general public	historical frequency, local and state feedback, spatial analyses; and 2016-2021 Update for South Western Region	N/A	N/A	N/A	Discussed as part of Hurricanes, Storm Surge and Flood	N/A	1 Class C dam: likelihood greatest with flood, hurricanes and earthquakes; increased risk downstream of Class C dams	N/A	N/A	Most impacted would be the 30% of residents in the region served by wells.	Low-Moderate Risk due to artificial fill - liquefaction: a magnitude 4 or higher earthquake is likely to occur approximately once every 25 years or 4% chance of occurrence in any given year	Low mentioned in text (2016-2021 Update for South Western Region)	Low, based upon past events and geographic area, mentioned in text (2016-2021 Update for South Western Region)	Low, based upon geographic cover and frequent past events that lead to droughts, health risks/deaths, scattered power outages (business losses) (2016-2021 Update for South Western Region)	Including coastal and storm surge: assume moderate-high; one of the most frequent natural disasters	N/A	N/A	High, based upon geographic cover, maximum probable extent (magnitude strength) and probability of future events (2016-2021 Update for South Western Region)	N/A	N/A	N/A	Moderate, based upon geographic cover, maximum probable extent (magnitude strength) and probability of future events (2016-2021 Update for South Western Region)	N/A	N/A	N/A	N/A	High, based upon geographic cover, maximum probable extent (magnitude strength) and probability of future events (2016-2021 Update for South Western Region)	Assume Moderate based upone text in current HMP. A tornado is likely to occur about once every twenty five years or 4% in any given year	N/A	N/A	N/A	N/A	Risk increases when drought conditions are present. Current HMP implies Low risk.	Discussed as part of severe thunderstorms	Ranked as a High hazard. Severe storm, including winter storms, likely to occur once every five years or 20% chance of occurrence in any given year	Multiple impacts due to climate change are dispersed throughout the region; rank not provided.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SWestCOG	Fairfield	Wilton	Based upon historical events, research, computer-based spatial analyses, and feedback from local and state officials, the Advisory Committee and the general public	historical frequency, local and state feedback, spatial analyses; and 2016-2021 Update for South Western Region	N/A	N/A	N/A	Discussed as part of Hurricanes, Storm Surge and Flood	N/A	4 Class C dams: likelihood greatest with flood, hurricanes and earthquakes; increased risk downstream of Class C dams	N/A	N/A	Most impacted would be the 30% of residents in the region served by wells.	Moderate Risk: a magnitude 4 or higher earthquake is likely to occur approximately once every 25 years or 4% chance of occurrence in any given year	Moderate mentioned in text (2016-2021 Update for South Western Region)	Moderate, based upon past events, geographic area covered within the municipality and high energy costs heating buildings (2016-2021 Update for South Western Region)	Moderate, based upon geographic cover and frequent past events that lead to droughts, health risks/deaths, scattered power outages (business losses) (2016-2021 Update for South Western Region)	Including coastal, storm surge and flash flooding: assume low-moderate; one of the most frequent natural disasters	Mentioned as a low risk hazard in this municipality	N/A	High, based upon geographic cover, maximum probable extent (magnitude, strength) and probability of future events (2016-2021 Update for South Western Region)	N/A	N/A	N/A	Moderate, based upon geographic cover, maximum probable extent (magnitude strength) and probability of future events (2016-2021 Update for South Western Region)	N/A	N/A	N/A	N/A	High, based upon geographic cover, maximum probable extent (magnitude strength) and probability of future events (2016-2021 Update for South Western Region)	Assume Moderate based upone text in current HMP. A tornado is likely to occur about once every twenty five years or 4% in any given year	N/A	N/A	N/A	N/A	Risk increases when drought conditions are present. Current HMP implies Low risk.	Discussed as part of severe thunderstorms	Ranked as a High hazard. Severe storm, including winter storms, likely to occur once every five years or 20% chance of occurrence in any given year	Multiple impacts due to climate change are dispersed throughout the region; rank not provided.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRCOG	Hartford	Avon	CRCOG proposed list of hazards based on HAZUS-MH, NFIP, local town info, historical weather records, and with concurrence from planning sub-committee and local municipalities.	N/A	N/A	N/A	N/A	N/A	N/A	533 dams in Region (33 Class C); likely significant damage. Assume M-H	N/A	N/A	Moderate risk assumed "periodically occur with serious economic and social impacts"	Low	N/A	N/A	N/A	Flooding can "easily disrupt" the transportation network, given the vast floodplain area and steep terrain on eastern edge of town. Assume Moderate to High	N/A	N/A	Moderate-High since coastal CT bears the initial brunt of such storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Discussed as part of hurricanes	Assume moderate: Hartford and Tolland county at the highest risk of tornadoes in the State; majority are of "lesser intensity" but larger ones have the capability for widespread destruction	N/A	N/A	N/A	N/A	Discussed as a low concern region-wide. Assume low.	Discussed as part of hurricanes and winter storms	High	Not fully evaluated; however, mentioned as a factor in impacting temperature, precipitation and wind patterns (utlimately affecting frequency or intensity of floods, droughts, winter storms and damaging rain storms)	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRCOG	Hartford	Berlin	CRCOG proposed list of hazards based on HAZUS-MH, NFIP, local town info, historical weather records, and with concurrence from planning sub-committee and local municipalities.	N/A	N/A	N/A	N/A	N/A	N/A	High	N/A	N/A	Moderate "susceptible"	Low	N/A	N/A	N/A	High, recurrent throughout town with regular flooding at a handful of locations 4-5 times per year. Flooding can separate village centers and complicate emergency response.	N/A	N/A	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Moderate "some risk"	N/A	N/A	N/A	N/A	Low	N/A	High	N/A	N/A	N/A	N/A	Mentioned as severe winter storm type	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRCOG	Hartford	Bloomfield	CRCOG proposed list of hazards based on HAZUS-MH, NFIP, local town info, historical weather records, and with concurrence from planning sub-committee and local municipalities.	N/A	N/A	N/A	N/A	N/A	N/A	4 Class C dams; Moderate to High Risk	N/A	N/A	Moderate risk assumed "periodically occur with serious economic and social impacts"	Low	N/A	N/A	N/A	Town maintains flood control structures within its borders, but if Hartford's backed up, Bloomfield is at risk. Frequent flooding in certain areas (Tunxis Avenue, Town Center area). Debris accumulation in streams a challenge especially on private property. Moderate-to-High	N/A	N/A	Moderate-High since coastal CT bears the initial brunt of such storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Discussed as part of hurricanes	Assume moderate: Hartford and Tolland county at the highest risk of tornadoes in the State; majority are of "lesser intensity" but larger ones have the capability for widespread destruction	N/A	N/A	N/A	N/A	Discussed as a low concern region-wide. Assume low.	Discussed as part of hurricanes and winter storms	High	Not fully evaluated; however, mentioned as a factor in impacting temperature, precipitation and wind patterns (utlimately affecting frequency or intensity of floods, droughts, winter storms and damaging rain storms)	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRCOG	Hartford	Canton	CRCOG proposed list of hazards based on HAZUS-MH, NFIP, local town info, historical weather records, and with concurrence from planning sub-committee and local municipalities.	N/A	N/A	N/A	N/A	N/A	N/A	Areas with Class C dams considered M-H, other areas M due to Class B's. Canton is high risk area downstream. (Moderate-to-High risk overall.)	N/A	N/A	Moderate risk assumed "periodically occur with serious economic and social impacts"	Low	N/A	N/A	N/A	Flooding challenges along the Farmington River; Dowd's Corner has RLPs. High.	N/A	N/A	Moderate-High since coastal CT bears the initial brunt of such storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Discussed as part of hurricanes	Assume moderate: Hartford and Tolland county at the highest risk of tornadoes in the State; majority are of "lesser intensity" but larger ones have the capability for widespread destruction	N/A	N/A	N/A	N/A	Discussed as a low concern region-wide. Assume low.	Discussed as part of hurricanes and winter storms	High	Not fully evaluated; however, mentioned as a factor in impacting temperature, precipitation and wind patterns (utlimately affecting frequency or intensity of floods, droughts, winter storms and damaging rain storms)	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRCOG	Hartford	East Granby	CRCOG proposed list of hazards based on HAZUS-MH, NFIP, local town info, historical weather records, and with concurrence from planning sub-committee and local municipalities.	N/A	N/A	N/A	N/A	N/A	N/A	533 dams in Region (33 Class C); likely significant damage. Assume M-H	N/A	N/A	Moderate risk assumed "periodically occur with serious economic and social impacts"	Low	N/A	N/A	N/A	Only a few floodprone areas. Moderate.	N/A	N/A	Moderate-High since coastal CT bears the initial brunt of such storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Discussed as part of hurricanes	Assume moderate: Hartford and Tolland county at the highest risk of tornadoes in the State; majority are of "lesser intensity" but larger ones have the capability for widespread destruction	N/A	N/A	N/A	N/A	Discussed as a low concern region-wide. Assume low.	Discussed as part of hurricanes and winter storms	High	Not fully evaluated; however, mentioned as a factor in impacting temperature, precipitation and wind patterns (utlimately affecting frequency or intensity of floods, droughts, winter storms and damaging rain storms)	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRCOG	Hartford	East Hartford	CRCOG proposed list of hazards based on HAZUS-MH, NFIP, local town info, historical weather records, and with concurrence from planning sub-committee and local municipalities.	N/A	N/A	N/A	N/A	N/A	N/A	533 dams in Region (33 Class C); likely significant damage. Assume M-H	N/A	N/A	Moderate risk assumed "periodically occur with serious economic and social impacts"	Low	N/A	N/A	N/A	CT River a major risk, protected by levee. Assume High	N/A	N/A	Moderate-High since coastal CT bears the initial brunt of such storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Discussed as part of hurricanes	Assume moderate: Hartford and Tolland county at the highest risk of tornadoes in the State; majority are of "lesser intensity" but larger ones have the capability for widespread destruction	N/A	N/A	N/A	N/A	Discussed as a low concern region-wide. Assume low.	Discussed as part of hurricanes and winter storms	High	Not fully evaluated; however, mentioned as a factor in impacting temperature, precipitation and wind patterns (utlimately affecting frequency or intensity of floods, droughts, winter storms and damaging rain storms)	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRCOG	Hartford	East Windsor	CRCOG proposed list of hazards based on HAZUS-MH, NFIP, local town info, historical weather records, and with concurrence from planning sub-committee and local municipalities.	N/A	N/A	N/A	N/A	N/A	N/A	533 dams in Region (33 Class C); likely significant damage. Assume M-H	N/A	N/A	Moderate risk assumed "periodically occur with serious economic and social impacts"	Low	N/A	N/A	N/A	Beaver issues along with targeted floodprone areas; Moderate	N/A	N/A	Moderate-High since coastal CT bears the initial brunt of such storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Discussed as part of hurricanes	Assume moderate: Hartford and Tolland county at the highest risk of tornadoes in the State; majority are of "lesser intensity" but larger ones have the capability for widespread destruction	N/A	N/A	N/A	N/A	Discussed as a low concern region-wide. Assume low.	Discussed as part of hurricanes and winter storms	High	Not fully evaluated; however, mentioned as a factor in impacting temperature, precipitation and wind patterns (utlimately affecting frequency or intensity of floods, droughts, winter storms and damaging rain storms)	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRCOG	Hartford	Enfield	CRCOG proposed list of hazards based on HAZUS-MH, NFIP, local town info, historical weather records, and with concurrence from planning sub-committee and local municipalities.	N/A	N/A	N/A	N/A	N/A	N/A	1 Class C dam; Moderate Risk	N/A	N/A	Moderate risk assumed "periodically occur with serious economic and social impacts"	Low	N/A	N/A	N/A	Assume High: Flooding is the most significant natural hazard, Town created FHMP in 2000 and updated as part of regional plan. October 2005 floods closed I-91, Enfield Square Mall, and caused serious traffic issues	N/A	N/A	Moderate-High since coastal CT bears the initial brunt of such storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Discussed as part of hurricanes	Assume moderate: Hartford and Tolland county at the highest risk of tornadoes in the State; majority are of "lesser intensity" but larger ones have the capability for widespread destruction	N/A	N/A	N/A	N/A	Discussed as a low concern region-wide. Assume low.	Discussed as part of hurricanes and winter storms	High	Not fully evaluated; however, mentioned as a factor in impacting temperature, precipitation and wind patterns (utlimately affecting frequency or intensity of floods, droughts, winter storms and damaging rain storms)	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRCOG	Hartford	Farmington	CRCOG proposed list of hazards based on HAZUS-MH, NFIP, local town info, historical weather records, and with concurrence from planning sub-committee and local municipalities.	N/A	N/A	N/A	N/A	N/A	N/A	3 Class C dams; Moderate to High Risk	N/A	N/A	Moderate risk assumed "periodically occur with serious economic and social impacts"	Low	N/A	N/A	N/A	Transportation network frequently disrupted by flooding of Farmington River; Moderate to High	N/A	N/A	Moderate-High since coastal CT bears the initial brunt of such storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Discussed as part of hurricanes	Assume moderate: Hartford and Tolland county at the highest risk of tornadoes in the State; majority are of "lesser intensity" but larger ones have the capability for widespread destruction	N/A	N/A	N/A	N/A	Discussed as a low concern region-wide. Assume low.	Discussed as part of hurricanes and winter storms	High	Not fully evaluated; however, mentioned as a factor in impacting temperature, precipitation and wind patterns (utlimately affecting frequency or intensity of floods, droughts, winter storms and damaging rain storms)	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRCOG	Hartford	Glastonbury	CRCOG proposed list of hazards based on HAZUS-MH, NFIP, local town info, historical weather records, and with concurrence from planning sub-committee and local municipalities.	N/A	N/A	N/A	N/A	N/A	N/A	533 dams in Region (33 Class C); likely significant damage. Assume M-H	N/A	N/A	Moderate risk assumed "periodically occur with serious economic and social impacts"	Low	N/A	N/A	N/A	Flooding can "easily disrupt" the transportation network, given the vast floodplain area and steep terrain on eastern edge of town. Assume Moderate to High	N/A	N/A	Moderate-High since coastal CT bears the initial brunt of such storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Discussed as part of hurricanes	Assume moderate: Hartford and Tolland county at the highest risk of tornadoes in the State; majority are of "lesser intensity" but larger ones have the capability for widespread destruction	N/A	N/A	N/A	N/A	Discussed as a low concern region-wide. Assume low.	Discussed as part of hurricanes and winter storms	High	Not fully evaluated; however, mentioned as a factor in impacting temperature, precipitation and wind patterns (utlimately affecting frequency or intensity of floods, droughts, winter storms and damaging rain storms)	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRCOG	Hartford	Granby	CRCOG proposed list of hazards based on HAZUS-MH, NFIP, local town info, historical weather records, and with concurrence from planning sub-committee and local municipalities.	N/A	N/A	N/A	N/A	N/A	N/A	533 dams in Region (33 Class C); likely significant damage. Assume M-H	N/A	N/A	Moderate risk assumed "periodically occur with serious economic and social impacts"	Low	N/A	N/A	N/A	Flooding can "easily disrupt" the transportation network, given the vast floodplain area and steep terrain on eastern edge of town. Assume Moderate to High	N/A	N/A	Moderate-High since coastal CT bears the initial brunt of such storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Discussed as part of hurricanes	Assume moderate: Hartford and Tolland county at the highest risk of tornadoes in the State; majority are of "lesser intensity" but larger ones have the capability for widespread destruction	N/A	N/A	Moderate-High concern due to tree limb falls/ice storms, etc. Covered under hurricane/winter storms	N/A	Significant forested lands - more concern over forest fires than most other towns in the region. Moderate risk	Discussed as part of hurricanes and winter storms	High	Not fully evaluated; however, mentioned as a factor in impacting temperature, precipitation and wind patterns (utlimately affecting frequency or intensity of floods, droughts, winter storms and damaging rain storms)	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRCOG	Hartford	Hartford	CRCOG proposed list of hazards based on HAZUS-MH, NFIP, local town info, historical weather records, and with concurrence from planning sub-committee and local municipalities.	N/A	N/A	N/A	N/A	N/A	N/A	4 Class C dams; Moderate to High Risk	N/A	N/A	Moderate risk assumed "periodically occur with serious economic and social impacts"	Low	N/A	N/A	N/A	CT River a major risk, protected by levee. Assume High	N/A	N/A	Moderate-High since coastal CT bears the initial brunt of such storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Discussed as part of hurricanes	Assume moderate: Hartford and Tolland county at the highest risk of tornadoes in the State; majority are of "lesser intensity" but larger ones have the capability for widespread destruction	N/A	N/A	N/A	N/A	Discussed as a low concern region-wide. Assume low.	Discussed as part of hurricanes and winter storms	High	Not fully evaluated; however, mentioned as a factor in impacting temperature, precipitation and wind patterns (utlimately affecting frequency or intensity of floods, droughts, winter storms and damaging rain storms)	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRCOG	Hartford	Manchester	CRCOG proposed list of hazards based on HAZUS-MH, NFIP, local town info, historical weather records, and with concurrence from planning sub-committee and local municipalities.	N/A	N/A	N/A	N/A	N/A	N/A	2 Class C dams; Moderate to High Risk	N/A	N/A	Moderate risk assumed "periodically occur with serious economic and social impacts"	Low	N/A	N/A	N/A	Flooding can "easily disrupt" the transportation network, given the vast floodplain area and steep terrain on eastern edge of town. Assume Moderate to High	N/A	N/A	Moderate-High since coastal CT bears the initial brunt of such storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Discussed as part of hurricanes	Assume moderate: Hartford and Tolland county at the highest risk of tornadoes in the State; majority are of "lesser intensity" but larger ones have the capability for widespread destruction	N/A	N/A	N/A	N/A	Discussed as a low concern region-wide. Assume low.	Discussed as part of hurricanes and winter storms	High	Not fully evaluated; however, mentioned as a factor in impacting temperature, precipitation and wind patterns (utlimately affecting frequency or intensity of floods, droughts, winter storms and damaging rain storms)	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRCOG	Hartford	Marlborough	CRCOG proposed list of hazards based on HAZUS-MH, NFIP, local town info, historical weather records, and with concurrence from planning sub-committee and local municipalities.	N/A	N/A	N/A	N/A	N/A	N/A	533 dams in Region (33 Class C); likely significant damage. Assume M-H	N/A	N/A	Moderate risk assumed "periodically occur with serious economic and social impacts"	Low	N/A	N/A	N/A	Flooding can "easily disrupt" the transportation network, given the vast floodplain area and steep terrain on eastern edge of town.	N/A	N/A	Moderate-High since coastal CT bears the initial brunt of such storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Discussed as part of hurricanes	Assume moderate: Hartford and Tolland county at the highest risk of tornadoes in the State; majority are of "lesser intensity" but larger ones	N/A	N/A	N/A	N/A	Town has large tracts of forested land - more concern over forest fires than most other towns in the region. Moderate risk	Discussed as part of hurricanes and winter storms	High	Not fully evaluated; however, mentioned as a factor in impacting temperature, precipitation and wind patterns (utlimately	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

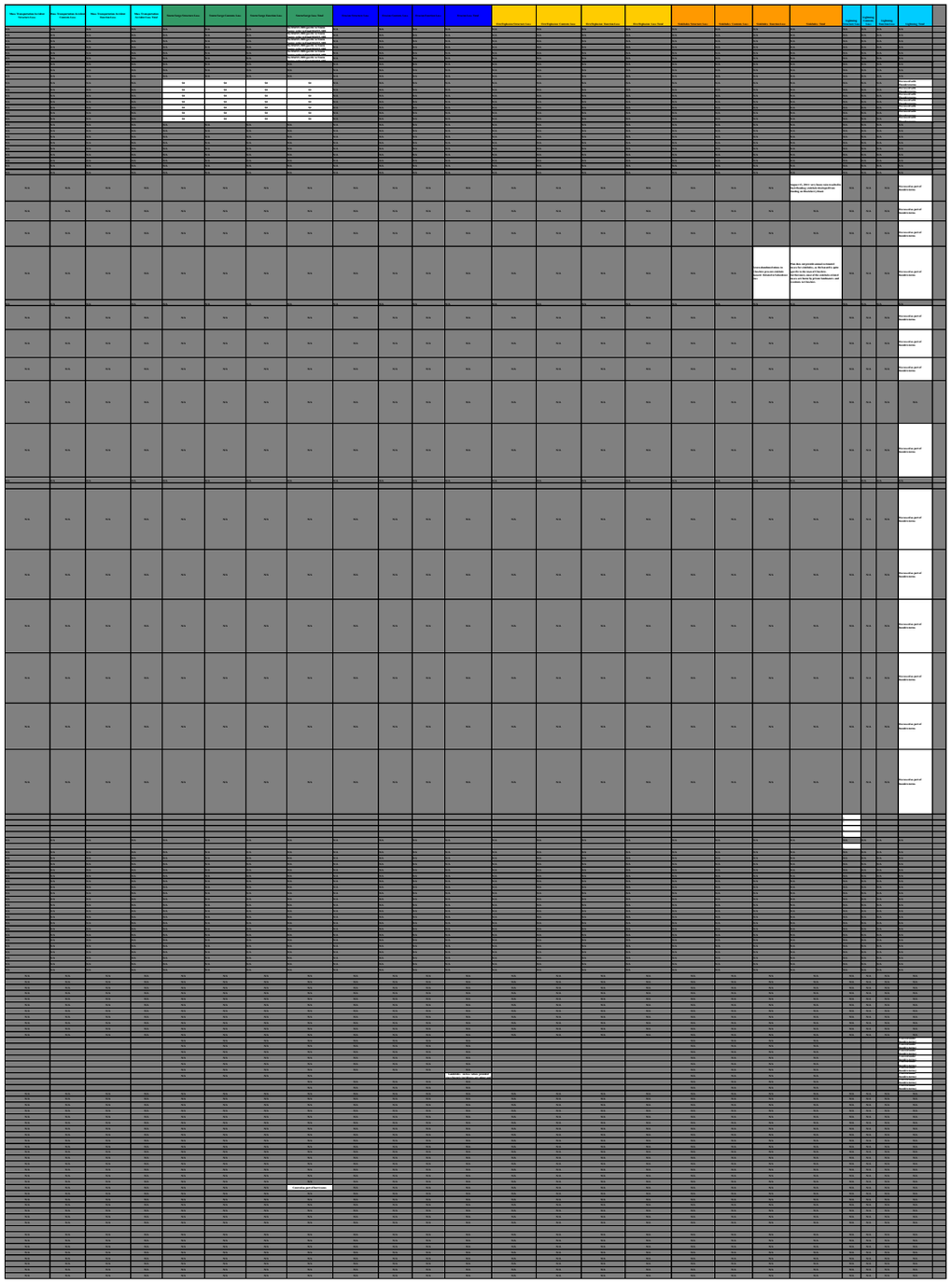
																		Assume Moderate to High													have the capability for widespread destruction								affecting frequency or intensity of floods, droughts, winter storms and damaging rain storms)																					
CRCOG	Hartford	New Britain	CCRPA utilized the 2007 State HMP and other HMPs to determine risks. CCRPA plan examined weather and event data from a variety of sources, engineering reports, RLP losses, and used HAZUS-MH to estimate building structure losses (flooding); historical data and dam classifications and downstream areas for dam failure; provided snow removal costs for communities for winter storms; provided hurricane damages for wind and ran HAZUS-MH (base data) for hurricanes; had qualitative historic damages for tornadoes (except for two events); qualitative assessment for drought; qualitative assessment for wildfire	Quantitative data and some qualitative data (one engineer reference, RLPs, HAZUS-MH)	N/A	N/A	N/A	N/A	N/A	High; downstream of noted high-risk dam for failure	N/A	N/A	Moderate "susceptible"	Low to Moderate (per USGS), but City feels it is at more risk than other communities in region due to numerous older buildings	N/A	N/A	N/A	High; Willow Brook can flood 60-80 properties such as in 1992. West canal is not on FIRMs but is a flooding issue.	N/A	N/A	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Moderate "some risk"	N/A	N/A	N/A	N/A	Low	N/A	High	N/A	N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRCOG	**Hartford**	**Newington**	**CRCOG proposed list of hazards based on State Plan, historical weather records, and with concurrence from planning sub-committee and local municipalities. Historic data and HAZUS-MH for hurricanes. Recent damage information from October 2005 for floods (no HAZUS) as well as zoning areas within floodplains and RLP losses. Flood risk assumed moderate to high overall, regular flooding with major flooding occuring every 5-10 years along smaller streams and every 30 years on larger streams. Mostly qualitative data for other hazards. Winter storms include Nor'easters; Annual snowfall of 50 inches; Can have huge impact on municipal budgets; assume moderate to high ranking. Wildfire risk is generally low with very few fires in the past decade.**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**533 dams in Region (33 Class C); likely significant damage. Assume M-H**	**N/A**	**N/A**	**Moderate risk assumed "periodically occur with serious economic and social impacts"**	**Low**	**N/A**	**N/A**	**N/A**	**Assume Moderate-to-High. Stamm Road area is a frequent flooding issue. Industrial area/Amtrak railroad line. NRCS study (2004) recommends culvert improvements requiring cooperation of railroad as well as floodproofing of 8 buildings**	**N/A**	**N/A**	**Moderate-High since coastal CT bears the initial brunt of such storms**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**Discussed as part of hurricanes**	**Assume moderate: Hartford and Tolland county at the highest risk of tornadoes in the State; majority are of "lesser intensity" but larger ones have the capability for widespread destruction**	**N/A**	**N/A**	**N/A**	**N/A**	**Discussed as a low concern region-wide. Assume low.**	**Discussed as part of hurricanes and winter storms**	**High**	**Not fully evaluated; however, mentioned as a factor in impacting temperature, precipitation and wind patterns (utlimately affecting frequency or intensity of floods, droughts, winter storms and damaging rain storms)**	**N/A**	**N/A**	**N/A**	**Discussed in Winter Storms**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
CRCOG	Hartford	Plainville	CCRPA utilized the 2007 State HMP and other HMPs to determine risks. CCRPA plan examined weather and event data from a variety of sources, engineering reports, RLP losses, and used HAZUS-MH to estimate building structure losses (flooding); historical data and dam classifications and downstream areas for dam failure; provided snow removal costs for communities for winter storms; provided hurricane damages for wind and ran HAZUS-MH (base data) for hurricanes; had qualitative historic damages for tornadoes (except for two events); qualitative assessment for drought; qualitative assessment for wildfire	Quantitative data and some qualitative data (one engineer reference, RLPs, HAZUS-MH)	N/A	N/A	N/A	N/A	N/A	Low; No high or significant hazard dams listed	N/A	N/A	Moderate "susceptible"	Low to Moderate (per USGS)	N/A	N/A	N/A	High; "Primary challenge" for town	N/A	N/A	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Moderate "some risk"	N/A	N/A	N/A	N/A	Low	N/A	High	N/A	N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRCOG	**Hartford**	**Rocky Hill**	**CRCOG proposed list of hazards based on HAZUS-MH, NFIP, local town info, historical weather records, and with concurrence from planning sub-committee and local municipalities.**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**533 dams in Region (33 Class C); likely significant damage. Assume M-H**	**N/A**	**N/A**	**Moderate risk assumed "periodically occur with serious economic and social impacts"**	**Low**	**N/A**	**N/A**	**N/A**	**Flooding can "easily disrupt" the transportation network, given the vast floodplain area and steep terrain on eastern edge of town. Assume Moderate to High**	**N/A**	**N/A**	**Moderate-High since coastal CT bears the initial brunt of such storms**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**Discussed as part of hurricanes**	**Assume moderate: Hartford and Tolland county at the highest risk of tornadoes in the State; majority are of "lesser intensity" but larger ones have the capability for widespread destruction**	**N/A**	**N/A**	**N/A**	**N/A**	**Discussed as a low concern region-wide. Assume low.**	**Discussed as part of hurricanes and winter storms**	**High**	**Not fully evaluated; however, mentioned as a factor in impacting temperature, precipitation and wind patterns (utlimately affecting frequency or intensity of floods, droughts, winter storms and damaging rain storms)**	**N/A**	**N/A**	**N/A**	**Discussed in Winter Storms**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
CRCOG	**Hartford**	**Simsbury**	**CRCOG proposed list of hazards based on HAZUS-MH, NFIP, local town info, historical weather records, and with concurrence from planning sub-committee and local municipalities.**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**533 dams in Region (33 Class C); likely significant damage. Assume M-H**	**N/A**	**N/A**	**Moderate risk assumed "periodically occur with serious economic and social impacts"**	**Low**	**N/A**	**N/A**	**N/A**	**Flooding can "easily disrupt" the transportation network, given the vast floodplain area and steep terrain on eastern edge of town. Assume Moderate to High**	**N/A**	**N/A**	**Moderate-High since coastal CT bears the initial brunt of such storms**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**Discussed as part of hurricanes**	**Assume moderate: Hartford and Tolland county at the highest risk of tornadoes in the State; majority are of "lesser intensity" but larger ones have the capability for widespread destruction**	**N/A**	**N/A**	**N/A**	**N/A**	**Discussed as a low concern region-wide. Assume low.**	**Discussed as part of hurricanes and winter storms**	**High**	**Not fully evaluated; however, mentioned as a factor in impacting temperature, precipitation and wind patterns (utlimately affecting frequency or intensity of floods, droughts, winter storms and damaging rain storms)**	**N/A**	**N/A**	**N/A**	**Discussed in Winter Storms**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
CRCOG	**Hartford**	**South Windsor**	**CRCOG proposed list of hazards based on HAZUS-MH, NFIP, local town info, historical weather records, and with concurrence from planning sub-committee and local municipalities.**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**2 Class C dams; Moderate to High Risk**	**N/A**	**N/A**	**Moderate risk assumed "periodically occur with serious economic and social impacts"**	**Low**	**N/A**	**N/A**	**N/A**	**Flooding can "easily disrupt" the transportation network, given the vast floodplain area and steep terrain on eastern edge of town. Assume Moderate to High**	**N/A**	**N/A**	**Moderate-High since coastal CT bears the initial brunt of such storms**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**Discussed as part of hurricanes**	**Assume moderate: Hartford and Tolland county at the highest risk of tornadoes in the State; majority are of "lesser intensity" but larger ones have the capability for widespread destruction**	**N/A**	**N/A**	**N/A**	**N/A**	**Discussed as a low concern region-wide. Assume low.**	**Discussed as part of hurricanes and winter storms**	**High**	**Not fully evaluated; however, mentioned as a factor in impacting temperature, precipitation and wind patterns (utlimately affecting frequency or intensity of floods, droughts, winter storms and damaging rain storms)**	**N/A**	**N/A**	**N/A**	**Discussed in Winter Storms**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
CRCOG	Hartford	Southington	CCRPA utilized the 2007 State HMP and other HMPs to determine risks. CCRPA plan examined weather and event data from a variety of sources, engineering reports, RLP losses, and used HAZUS-MH to estimate building structure losses (flooding); historical data and dam classifications and downstream areas for dam failure; provided snow removal costs for communities for winter storms; provided hurricane damages for wind and ran HAZUS-MH (base data) for hurricanes; had qualitative historic damages for tornadoes (except for two events); qualitative assessment for drought; qualitative assessment for wildfire	Quantitative data and some qualitative data (one engineer reference, RLPs, HAZUS-MH)	N/A	N/A	N/A	N/A	N/A	High	N/A	N/A	Moderate "susceptible"	Low to Moderate (per USGS)	N/A	N/A	N/A	High; Quinnipaic River; Woodruff Street	N/A	N/A	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Moderate "some risk"	N/A	N/A	N/A	N/A	Low	N/A	High	N/A	N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRCOG	**Hartford**	**Suffield**	**CRCOG proposed list of hazards based on State Plan, historical weather records, and with concurrence from planning sub-committee and local municipalities. Historic data and HAZUS-MH for hurricanes. Recent damage information from October 2005 for floods (no HAZUS) as well as zoning areas within floodplains and RLP losses. Flood risk assumed moderate to high overall, regular flooding with major flooding occuring every 5-10 years along smaller streams and every 30 years on larger streams. Mostly qualitative data for other hazards. Winter storms include Nor'easters; Annual snowfall of 50 inches; Can have huge impact on municipal budgets; assume moderate to high ranking. Wildfire risk is generally low with very few fires in the past decade.**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**533 dams in Region (33 Class C); likely significant damage. Assume M-H**	**N/A**	**N/A**	**Moderate risk assumed "periodically occur with serious economic and social impacts"**	**Low**	**N/A**	**N/A**	**N/A**	**Flooding can "easily disrupt" the transportation network, given the vast floodplain area and steep terrain on eastern edge of town. Assume Moderate to High**	**N/A**	**N/A**	**Moderate-High since coastal CT bears the initial brunt of such storms**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**Discussed as part of hurricanes**	**Assume moderate: Hartford and Tolland county at the highest risk of tornadoes in the State; majority are of "lesser intensity" but larger ones have the capability for widespread destruction**	**N/A**	**N/A**	**N/A**	**N/A**	**Discussed as a low concern region-wide. Assume low.**	**Discussed as part of hurricanes and winter storms**	**High**	**Not fully evaluated; however, mentioned as a factor in impacting temperature, precipitation and wind patterns (utlimately affecting frequency or intensity of floods, droughts, winter storms and damaging rain storms)**	**N/A**	**N/A**	**N/A**	**Discussed in Winter Storms**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
CRCOG	**Hartford**	**West Hartford**	**CRCOG proposed list of hazards based on HAZUS-MH, NFIP, local town info, historical weather records, and with concurrence from planning sub-committee and local municipalities.**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**10 Class C dams; High Risk**	**N/A**	**N/A**	**Moderate risk assumed "periodically occur with serious economic and social impacts"**	**Low**	**N/A**	**N/A**	**N/A**	**Town undertook significant structural mitigation projects in the 1980's, including rechanneling Trout Brook to remove 238 houses from the floodplain. Town has a Repetitive Flood Loss Plan; Sewer backups are an issue but MDC Clean Water Project should address overflow problems. Moderate risk, mostly nuisance flooding.**	**N/A**	**N/A**	**Moderate-High since coastal CT bears the initial brunt of such storms**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**Discussed as part of hurricanes**	**Assume moderate: Hartford and Tolland county at the highest risk of tornadoes in the State; majority are of "lesser intensity" but larger ones have the capability for widespread destruction**	**N/A**	**N/A**	**N/A**	**N/A**	**Discussed as a low concern region-wide. Assume low.**	**Discussed as part of hurricanes and winter storms**	**High**	**Not fully evaluated; however, mentioned as a factor in impacting temperature, precipitation and wind patterns (utlimately affecting frequency or intensity of floods, droughts, winter storms and damaging rain storms)**	**N/A**	**N/A**	**N/A**	**Discussed in Winter Storms**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
CRCOG	**Hartford**	**Wethersfield**	**CRCOG proposed list of hazards based on HAZUS-MH, NFIP, local town info, historical weather records, and with concurrence from planning sub-committee and local municipalities.**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**533 dams in Region (33 Class C); likely significant damage. Assume M-H**	**N/A**	**N/A**	**Moderate risk assumed "periodically occur with serious economic and social impacts"**	**Low**	**N/A**	**N/A**	**N/A**	**Flooding can "easily disrupt" the transportation network, given the vast floodplain area and steep terrain on eastern edge of town. Assume Moderate to High**	**N/A**	**N/A**	**Moderate-High since coastal CT bears the initial brunt of such storms**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**Discussed as part of hurricanes**	**Assume moderate: Hartford and Tolland county at the highest risk of tornadoes in the State; majority are of "lesser intensity" but larger ones have the capability for widespread destruction**	**N/A**	**N/A**	**N/A**	**N/A**	**Discussed as a low concern region-wide. Assume low.**	**Discussed as part of hurricanes and winter storms**	**High**	**Not fully evaluated; however, mentioned as a factor in impacting temperature, precipitation and wind patterns (utlimately affecting frequency or intensity of floods, droughts, winter storms and damaging rain storms)**	**N/A**	**N/A**	**N/A**	**Discussed in Winter Storms**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
CRCOG	**Hartford**	**Windsor**	**CRCOG proposed list of hazards based on HAZUS-MH, NFIP, local town info, historical weather records, and with concurrence from planning sub-committee and local municipalities.**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**1 Class C dam; Moderate Risk**	**N/A**	**N/A**	**Moderate risk assumed "periodically occur with serious economic and social impacts"**	**Low**	**N/A**	**N/A**	**N/A**	**Flooding can "easily disrupt" the transportation network, given the vast floodplain area and steep terrain on eastern edge of town. Assume Moderate to High. 2 RPL Structures.**	**N/A**	**N/A**	**Moderate-High since coastal CT bears the initial brunt of such storms**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**Discussed as part of hurricanes**	**Assume moderate: Hartford and Tolland county at the highest risk of tornadoes in the State; majority are of "lesser intensity" but larger ones have the capability for widespread destruction**	**N/A**	**N/A**	**N/A**	**N/A**	**Discussed as a low concern region-wide. Assume low.**	**Discussed as part of hurricanes and winter storms**	**High**	**Not fully evaluated; however, mentioned as a factor in impacting temperature, precipitation and wind patterns (utlimately affecting frequency or intensity of floods, droughts, winter storms and damaging rain storms)**	**N/A**	**N/A**	**N/A**	**Discussed in Winter Storms**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
CRCOG	**Hartford**	**Windsor Locks**	**CRCOG proposed list of hazards based on HAZUS-MH, NFIP, local town info, historical weather records, and with concurrence from planning sub-committee and local municipalities.**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**533 dams in Region (33 Class C); likely significant damage. Assume M-H**	**N/A**	**N/A**	**Moderate risk assumed "periodically occur with serious economic and social impacts"**	**Low**	**N/A**	**N/A**	**N/A**	**Flooding can "easily disrupt" the transportation network, given the vast floodplain area and steep terrain on eastern edge of town. Assume Moderate to High**	**N/A**	**N/A**	**Moderate-High since coastal CT bears the initial brunt of such storms**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**Discussed as part of hurricanes**	**Assume moderate: Hartford and Tolland county at the highest risk of tornadoes in the State; majority are of "lesser intensity" but larger ones have the capability for widespread destruction**	**N/A**	**N/A**	**N/A**	**N/A**	**Discussed as a low concern region-wide. Assume low.**	**Discussed as part of hurricanes and winter storms**	**High**	**Not fully evaluated; however, mentioned as a factor in impacting temperature, precipitation and wind patterns (utlimately affecting frequency or intensity of floods, droughts, winter storms and damaging rain storms)**	**N/A**	**N/A**	**N/A**	**Discussed in Winter Storms**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
NWHCOG		**Barkhamsted**	**Draft NHMGP-Litchfield Hills, January 2016 - Based on interviews with emergency management directors, local officials, public works directors, DEEP staff, and others. NOAA Storm Events Database; Environmental GIS Data; FEMA; Historical Information**	**GIS, historical frequency and severity, local and state feedback (Draft NHMGP-Litchfield Hills, January 2016)**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**10 dams total; one rated C (Saville Dam). Saville Sam lacks a dam failure study, which makes the risk of dam failure unknown**	**N/A**	**N/A**	**Litchfield Hills Region is vulnerable to drought because a large number of its residences and businesses rely on wells as a source of potable water supply.**	**The earthquakes felt in the Litchfield Hills Region have been small events with little or no damage. As a result, the Region is considered to have a comparatively low vulnerability to earthquakes.**	**N/A**	**N/A**	**N/A**	**Flooding is one of the major natural hazards of concern**	**N/A**	**N/A**	**Incorporated into winds and flooding sections**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**Incorporated into high winds section**	**Connecticut has experienced about 3 tornados every 2 years, and can cause power outages and costly property damage**	**N/A**	**N/A**	**N/A**	**N/A**	**During periods of drought, wooded areas become particularly vulnerable to fire hazard**	**The Litchfield Hills Region is vulnerable to a variety of high wind events including tornados, nor'easters, thunderstorms, blizzards, and hurricanes**	**Severe winter storms are frequent in the region and can cause significant damage - Long Bridge at Pleasant Valley has a long history of ice jams**	**N/A**	**N/A**	**N/A**	**N/A**	**Discussed in Winter Storms**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**Power outages are a consistent problem during heavy winds and severe winter storms**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
NWHCOG		Burlington	CCRPA utilized the 2007 State HMP and other HMPs to determine risks. CCRPA plan examined weather and event data from a variety of sources, engineering reports, RLP losses, and used HAZUS-MH to estimate building structure losses (flooding); historical data and dam classifications and downstream areas for dam failure; provided snow removal costs for communities for winter storms; provided hurricane damages for wind and ran HAZUS-MH (base data) for hurricanes; had qualitative historic damages for tornadoes (except for two events); qualitative assessment for drought; qualitative assessment for wildfire	Quantitative data and some qualitative data (one engineer reference, RLPs, HAZUS-MH)	N/A	N/A	N/A	N/A	N/A	High	N/A	N/A	Moderate "susceptible"	Low to Moderate (per USGS)	N/A	N/A	N/A	**High; October 2005 storms washed out several bridges and roads; beavers are also an issue**	N/A	N/A	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Moderate "some risk"	N/A	N/A	N/A	N/A	Low to Moderate - risk somewhat higher than other communities but "not a hazard of particular concern"	N/A	High	N/A	N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NWCOG		**Canaan**	**Draft NHMGP-Litchfield Hills, January 2016 - Based on interviews with emergency management directors, local officials, public works directors, DEEP staff, and others. NOAA Storm Events Database; Environmental GIS Data; FEMA; Historical Information**	**GIS, historical frequency and severity, local and state feedback (Draft NHMGP-Litchfield Hills, January 2016)**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**15 dams; two rated C**	**N/A**	**N/A**	**N/A**	**Low per USGS**	**N/A**	**N/A**	**N/A**	**Concentrated along the Housatonic and Hollenbeck Rivers: highest risk Route 7, 63 and 126**	**Considered Moderate**	N/A	**Moderate due to flooding**	**N/A**	**N/A**	**N/A**	**Incorporated into Thunderstorm Mentioned as a cause of wildfires**	N/A	N/A	**N/A**	**N/A**	**Moderate due to high wind damage**	**Incorporated into Thunderstorm**	**N/A**	**N/A**	**N/A**	**N/A**	**High-risk area for small wildfires, low-risk area for large wildfires**	**Incorporated into Thunderstorm**	**Severe winter storms are frequent in the region and can cause significant damage**	**N/A**	**N/A**	**N/A**	**N/A**	**Discussed in Winter Storms**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
NWCOG		**Colebrook**	**Draft NHMGP-Litchfield Hills, January 2016 - Based on interviews with emergency management directors, local officials, public works directors, DEEP staff, and others. NOAA Storm Events Database; Environmental GIS Data; FEMA; Historical Information**	**GIS, historical frequency and severity, local and state feedback (Draft NHMGP-Litchfield Hills, January 2016)**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**16 dams total: 1 "C" (Colebrook River Dam); six "B" or "BB"; nine "A." "The town is home to numerous dams that could fail during a flood event."**	**N/A**	**N/A**	**N/A**	**Low per USGS**	**N/A**	**N/A**	**N/A**	**The hazard of flooding has been greatly reduced through the construction of the Colebrook Dam and the Goodwin Dam; however, lower end of Sandy Brook near Riverton Road commonly floods, sending water into basements.**	**N/A**	**N/A**		**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**			**N/A**	**N/A**	**N/A**	**N/A**	**During periods of drought, wooded areas become particularly vulnerable to fire hazard**		**Severe winter storms are frequent in the region and can cause significant damage**	**N/A**	**N/A**	**N/A**	**N/A**	**Discussed in Winter Storms**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
NWCOG		**Cornwall**	**Draft NHMGP-Litchfield Hills, January 2016 - Based on interviews with emergency management directors, local officials, public works directors, DEEP staff, and others. NOAA Storm Events Database; Environmental GIS Data; FEMA; Historical Information**	**GIS, historical frequency and severity, local and state feedback (Draft NHMGP-Litchfield Hills, January 2016)**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**Low per USGS**	**N/A**	**N/A**	**N/A**	**River Road along the Housatonic River, Mill Brook drainage basin and stream corridor, Furnace brook has caused flooding along Route 4, Lake Road and the Hollenbeck River.**	**Considered Moderate**	N/A	**Moderate due to flooding**	**N/A**	**N/A**	**N/A**	**Incorporated into Thunderstorm Mentioned as a cause of wildfires**	N/A	N/A	**N/A**	**N/A**	**Moderate due to high wind damage**	**Incorporated into Thunderstorm**	**N/A**	**N/A**	**N/A**	**N/A**	**High-risk area for small wildfires, low-risk area for large wildfires**	**Incorporated into Thunderstorm**	**Severe winter storms are frequent in the region and can cause significant damage**	**N/A**	**N/A**	**N/A**	**N/A**	**Discussed in Winter Storms**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
NWCOG		**Goshen**	**Draft NHMGP-Litchfield Hills, January 2016 - Based on interviews with emergency management directors, local officials, public works directors, DEEP staff, and others. NOAA Storm Events Database; Environmental GIS Data; FEMA; Historical Information**	**GIS, historical frequency and severity, local and state feedback (Draft NHMGP-Litchfield Hills, January 2016)**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**16 dams total ; two rated C (North Pond Dam, Woodbridge Lake Dam)**	**N/A**	**N/A**			**N/A**	**N/A**	**N/A**	**Flooding is not as great a concern; there are not major rivers flowing through; however, localized flooding is an issue due to inadequate drainage systems and beaver dams. Flooding of seasonal residences could go unnoticed for several days with no one living there.**	**N/A**	**N/A**		**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**			**N/A**	**N/A**	**N/A**	**Isolated flooding occurs due to inadequate drainage systems. Near Woodridge Lake - a need for a comprehensive stormwater drainage study to better define drainage improvement needs**	**During periods of drought, wooded areas become particularly vulnerable to fire hazard**		**Severe winter storms are frequent in the region and can cause significant damage**	**N/A**	**N/A**	**N/A**	**N/A**	**Discussed in Winter Storms**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**

NVCOG	New Haven	Seymour	Hazard events and effects are given a combined rank based on location, frequency of occurrence, and magnitude/severity based on histrocical data from NOAA National Climatic Data Center. Scale of 2 to 9 (9 is highest risk)	Historical data, HAZUS-MH	N/A	N/A	N/A	N/A	N/A	3 - isolated to specific area during one event; between 1 and 10% probability in the next year , or at least once chance in next 100 years; limited magnitude / severity	N/A	N/A	N/A		N/A	N/A	N/A			N/A		N/A	N/A			N/A	N/A	N/A	N/A			N/A	N/A	N/A					N/A	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NVCOG	Fairfield	Shelton	Based on hazard history, FEMA information, comments from the public	N/A	N/A	N/A	N/A	N/A	N/A	See regional description in New Haven County	N/A	N/A	N/A	See regional description in New Haven County	N/A	N/A	N/A	See regional description in New Haven County	See regional description in New Haven County	N/A	See regional description in New Haven County	N/A	N/A	See regional description in New Haven County	See regional description in New Haven County	N/A	N/A	N/A	N/A	See regional description in New Haven County	See regional description in New Haven County	N/A	N/A	N/A	See regional description in New Haven County	See regional description in New Haven County	See regional description in New Haven County	See regional description in New Haven County	N/A	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NVCOG	New Haven	Southbury	Based on hazard history, FEMA information, comments from the public	N/A	N/A	N/A	N/A	N/A	N/A	Moderate-High. 6 dams total: 1 Class C; 5 Class B (and 1 Class BB dam upstream in Bethlehem)	N/A	N/A	N/A	Moderate to High	N/A	N/A	N/A	Moderate	Low to Moderate	N/A	High	N/A	N/A	N/A	Moderate	N/A	N/A	N/A	N/A	High	Moderate	N/A	N/A	N/A	N/A	Low to Moderate	High	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NVCOG	Litchfield	Thomaston	Based on hazard history, FEMA information, comments from the public	N/A	N/A	N/A	N/A	N/A	N/A	High. 11 dams total: 3 Class C; 1 Class B; 1 Class BB; 3 Class A; 3 Undefined	N/A	N/A	N/A	Moderate to High	N/A	N/A	N/A	Moderate	Low to Moderate	N/A	High	N/A	N/A	N/A	Moderate	N/A	N/A	N/A	N/A	High	Moderate to High	N/A	N/A	N/A	N/A	Low to Moderate	High	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NVCOG	New Haven	Waterbury	Based on hazard history, FEMA information, comments from the public	N/A	N/A	N/A	N/A	N/A	N/A	Moderate-High. 28 dams total: 5 Class C; 3 Class B: 2 Class BB; 14 Class A; 1 Class AA; 3 undefined	N/A	N/A	N/A	Moderate	N/A	N/A	N/A	Moderate to High	Low to Moderate	N/A	High	N/A	N/A	Moderate to High	Moderate	N/A	N/A	N/A	N/A	High	Moderate	N/A	N/A	N/A	High	Low	High	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NVCOG	Litchfield	Watertown	Based on hazard history, FEMA information, comments from the public	N/A	N/A	N/A	N/A	N/A	N/A	Moderate. 43 dams total: 5 Class C; 4 Class B; 4 Class BB; 13 Class A; 15 undefined	N/A	N/A	Low	Moderate	N/A	N/A	N/A	High	Low	N/A	Assume Moderate	N/A	N/A	Low	N/A	N/A	N/A	N/A	N/A	High	Moderate	N/A	N/A	N/A	N/A	Low	Moderate	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NVCOG	New Haven	Wolcott	Based on hazard history, FEMA information, comments from the public	N/A	N/A	N/A	N/A	N/A	N/A	Moderate-High. 22 registered dams: 5 Class C; 1 Class B; 3 Class BB; 3 Class A; 10 undefined	N/A	N/A	N/A	Moderate to High	N/A	N/A	N/A	Moderate to High	Low to Moderate	N/A	High	N/A	N/A	N/A	Moderate	N/A	N/A	N/A	N/A	High	Moderate	N/A	N/A	N/A	Moderate	Low to Moderate	High	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NVCOG	Litchfield	Woodbury	Based on hazard history, FEMA information, comments from the public	N/A	N/A	N/A	N/A	N/A	N/A	Moderate. 44 dams total: no Class C; no Class B; 6 Class BB; 13 Class A; 1 Class AA; 3 breached; 21 undefined	N/A	N/A	Low	Moderate	N/A	N/A	N/A	High	Assume Low	N/A	Assume Moderate to High	N/A	N/A	Low	N/A	N/A	N/A	N/A	N/A	Moderate to High	Moderate	N/A	N/A	N/A	N/A	Low	Moderate to High	Moderate to High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCRCOG	New Haven	Bethany	Problem Statements Calculated Priority Risk Index (PRI) values were used to classify each hazard according to three defined risk levels (low, moderate, or high). It should be noted that although some hazards are classified as posing “low” risk, their occurrence of varying or unprecedented magnitudes is still possible and will continue to be evaluated by each participating jurisdiction and during future plan updates.	Problem Statements Calculated Priority Risk Index (PRI)	N/A	N/A	N/A	Low host community for evacuees from coastal areas	Low cellular towers are without backup power, communication has been a problem in the past	Moderate failure of Long Hill Reservoir Dam could affect trailer park	N/A	N/A	Low large number of private wells	Low	Moderate	Moderate	Moderate	High especially roadway crossings	Moderate N/A	N/A	High tree-related hazards	N/A	N/A	N/A	Moderate	N/A	N/A	N/A	N/A	Moderate	Moderate	N/A	N/A	N/A	N/A	Low	Moderate	High	N/A	N/A	N/A	N/A	High	N/A	N/A	N/A	N/A	Low	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCRCOG	New Haven	Branford	Problem Statements Calculated Priority Risk Index (PRI) values were used to classify each hazard according to three defined risk levels (low, moderate, or high). It should be noted that although some hazards are classified as posing “low” risk, their occurrence of varying or unprecedented magnitudes is still possible and will continue to be evaluated by each participating jurisdiction and during future plan updates.	Problem Statements Calculated Priority Risk Index (PRI)	N/A	N/A	N/A	High	Low cellular towers are without backup power	Moderate-High	N/A	N/A	Low	Low	Moderate-High	Moderate	Moderate	High	Moderate	N/A	High	N/A	N/A	N/A	Moderate	N/A	N/A	N/A	N/A	Moderate-High "Tree-related hazards"	Moderate	N/A	N/A	N/A	Moderate-High	Low	High "tree related hazards"	High	N/A	N/A	N/A	N/A	High	N/A	High	N/A	N/A	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCRCOG	New Haven	East Haven	Calculated Priority Risk Index (PRI) values were used to classify each hazard according to three defined risk levels (low, moderate, or high). It should be noted that although some hazards are classified as posing “low” risk, their occurrence of varying or unprecedented magnitudes is still possible and will continue to be evaluated by each participating jurisdiction and during future plan updates.	Calculated Priority Risk Index (PRI)	N/A	N/A	N/A	N/A	N/A	Low	N/A	N/A	Low	Low	Moderate	Moderate	Moderate	High	Low to Moderate	N/A	High	N/A	N/A	N/A	Moderate	N/A	N/A	N/A	N/A	High	Moderate	N/A	N/A	N/A	Moderate to High	Low to Moderate	High	High	N/A	N/A	N/A	N/A	High	N/A	High	N/A	N/A	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCRCOG	New Haven	Guilford	Calculated Priority Risk Index (PRI) values were used to classify each hazard according to three defined risk levels (low, moderate, or high). It should be noted that although some hazards are classified as posing “low” risk, their occurrence of varying or unprecedented magnitudes is still possible and will continue to be evaluated by each participating jurisdiction and during future plan updates.	Calculated Priority Risk Index (PRI)	N/A	N/A	N/A	N/A	N/A	Low	N/A	N/A	Low	Low-Moderate	Moderate	Moderate	Moderate	High	Low to Moderate	N/A	High	N/A	N/A	N/A	Moderate	N/A	N/A	N/A	N/A	High	Moderate	N/A	N/A	N/A	Moderate	Low to Moderate	High	High	N/A	N/A	N/A	N/A	High	N/A	High	N/A	N/A	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCRCOG	New Haven	Hamden	Problem Statements Calculated Priority Risk Index (PRI) values were used to classify each hazard according to three defined risk levels (low, moderate, or high). It should be noted that although some hazards are classified as posing “low” risk, their occurrence of varying or unprecedented magnitudes is still possible and will continue to be evaluated by each participating jurisdiction and during future plan updates.	Problem Statements Calculated Priority Risk Index (PRI)	N/A	N/A	N/A	Low-Moderate	Moderate-High Downed trees, cellular towers not on backup power	Low-Moderate 13 critical facilities within close proximity to high or significant hazard dams	N/A	N/A	Low	Low	Moderate	Moderate	Moderate	Moderate-High especially riverine @ roads urban flooding a concern	Moderate	N/A	High	N/A	N/A	N/A	Moderate	N/A	N/A	N/A	N/A	Moderate-High "Tree-related hazards"	Moderate	N/A	N/A	N/A	Moderate-High widespread concern	Moderate Denselfy forested	High "tree related hazards"	High town buildings with flat roofs may be at risk	N/A	N/A	N/A	N/A	High	N/A	Moderate State Street Industrial Area	N/A	N/A	Moderate	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCRCOG	*New Haven*	*Madison*	Problem Statements Calculated Priority Risk Index (PRI) values were used to classify each hazard according to three defined risk levels (low, moderate, or high). It should be noted that although some hazards are classified as posing “low” risk, their occurrence of varying or unprecedented magnitudes is still possible and will continue to be evaluated by each participating jurisdiction and during future plan updates.	Problem Statements Calculated Priority Risk Index (PRI)	N/A	N/A	N/A	Moderate-High Isolation of low-lying areas	N/A	Low-Moderate 2 critical facilities in close proximity to significant hazard dam; risk is unknown	N/A	N/A	Low	Low	Moderate	Moderate	Moderate	High especially coastal	Moderate	N/A	High especially in coastal area	N/A	N/A	N/A	Moderate	N/A	N/A	N/A	N/A	Moderate	Moderate	N/A	N/A	N/A	N/A	Low	Moderate	High power falures, downed trees, roof collapse	N/A	N/A	N/A	N/A	High	N/A	High	N/A	N/A	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCRCOG	*New Haven*	*Meriden*	Vulnerabilities & Risk Assessment Sections	Vulnerabilities & Risk Assessment	N/A	N/A	N/A	N/A	N/A	Moderate Many significant and High Hazard dams, critical facilities in close proximity to high hazard dams	N/A	N/A	N/A	Moderate	N/A	N/A	N/A	High	Low to Moderate	N/A	Moderate-High	N/A	N/A	N/A	Low	N/A	N/A	N/A	N/A	Moderate	Low	N/A	N/A	N/A	Moderate to High	Low	Moderate	Moderate-High	N/A	N/A	N/A	N/A	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCRCOG	New Haven	Milford	N/A	N/A	Dismissed due to low likelihood of occurrence or minimal impacts on the City	N/A	N/A	Primary hazard - High	N/A	Moderate to high based on dam hazard class	N/A	N/A	Low	Low	Moderate	Moderate	Moderate	High	N/A	N/A	High	N/A	N/A	Low- little danger	N/A	N/A	N/A	N/A	N/A	Concern - M-H?	Moderate	Low	N/A	N/A	High	Low	High	High	N/A	N/A	N/A	N/A	High	N/A	Vulnerable	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCRCOG	New Haven	New Haven	N/A	N/A	N/A	N/A	N/A	High	N/A	N/A	N/A	N/A	Low	Low	Moderate	N/A	N/A	High	Moderate	N/A	Moderate to High	N/A	N/A	Low to Moderate	High	Low (most areas) to moderate (filled areas); not from mines	N/A	N/A	N/A	High	Low to Moderate	N/A	N/A	N/A	Moderate	N/A	High	High	N/A	N/A	N/A	N/A	High	N/A	High	N/A	N/A	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCRCOG	New Haven	North Branford	Problem Statements Calculated Priority Risk Index (PRI) values were used to classify each hazard according to three defined risk levels (low, moderate, or high). It should be noted that although some hazards are classified as posing “low” risk, their occurrence of varying or unprecedented magnitudes is still possible and will continue to be evaluated by each participating jurisdiction and during future plan updates.	Problem Statements Calculated Priority Risk Index (PRI)	N/A	N/A	N/A	N/A	N/A	Moderate-High	N/A	N/A	Moderate-High 2 critical facilities close to significant hazard dam	Low	Moderate	Moderate	Moderate	High	Moderate	N/A	High	N/A	N/A	N/A	Moderate	N/A	N/A	N/A	N/A	Moderate	Moderate	N/A	N/A	N/A	Moderate Number of locations	Low	High	High	N/A	N/A	N/A	N/A	High	N/A	Low	N/A	N/A	Low	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCRCOG	New Haven	North Haven	Problem Statements Calculated Priority Risk Index (PRI) values were used to classify each hazard according to three defined risk levels (low, moderate, or high). It should be noted that although some hazards are classified as posing “low” risk, their occurrence of varying or unprecedented magnitudes is still possible and will continue to be evaluated by each participating jurisdiction and during future plan updates.	Problem Statements Calculated Priority Risk Index (PRI)	N/A	N/A	N/A	N/A	N/A	Moderate 3 critical facilities in close proximity to significant hazard dam	N/A	N/A	Low	Low	Moderate	Moderate	Moderate	High especially riverine	Moderate	N/A	High	N/A	N/A	N/A	Moderate	N/A	N/A	N/A	N/A	Moderate-High	Moderate	N/A	N/A	N/A	Moderate-High Number of locations	Low	High	High	N/A	N/A	N/A	N/A	High	N/A	Moderate	N/A	N/A	Moderate	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCRCOG	New Haven	Orange	Problem Statements Calculated Priority Risk Index (PRI) values were used to classify each hazard according to three defined risk levels (low, moderate, or high). It should be noted that although some hazards are classified as posing “low” risk, their occurrence of varying or unprecedented magnitudes is still possible and will continue to be evaluated by each participating jurisdiction and during future plan updates.	Problem Statements Calculated Priority Risk Index (PRI)	N/A	N/A	N/A	N/A	N/A	Low-Moderate 1 critical facility in close proximity to significant hazard dam	N/A	N/A	Low	Low	Moderate	Moderate	Moderate	High most critical hazard of concern, esp. roadways & isolation	Moderate	N/A	High treefall is #1 concern	N/A	N/A	N/A	Moderate	N/A	N/A	N/A	N/A	Moderate-High	Moderate	N/A	N/A	N/A	Moderate-High	Low	High treefall is #1 concern	High treefall is #1 concern	N/A	N/A	N/A	N/A	High	N/A	Low	N/A	N/A	Low	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCRCOG	New Haven	Wallingford	Problem Statements Calculated Priority Risk Index (PRI) values were used to classify each hazard according to three defined risk levels (low, moderate, or high). It should be noted that although some hazards are classified as posing “low” risk, their occurrence of varying or unprecedented magnitudes is still possible and will continue to be evaluated by each participating jurisdiction and during future plan updates.	Problem Statements Calculated Priority Risk Index (PRI)	N/A	N/A	N/A	N/A	N/A	Moderate-High 13 critical facilities in close proximity to high or significant hazard dam	N/A	N/A	Low	Low	Moderate	Moderate	Moderate	High Quinnipiac	Moderate	N/A	High	N/A	N/A	N/A	Moderate	N/A	N/A	N/A	N/A	Moderate	Moderate	N/A	N/A	N/A	Moderate periodically a problem in isolated areas	Low	Moderate-High Tree-related hazards	Moderate-High roof collapse concern	N/A	N/A	N/A	N/A	High	N/A	Low	N/A	N/A	Low	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCRCOG	New Haven	West Haven	Problem Statements Calculated Priority Risk Index (PRI) values were used to classify each hazard according to three defined risk levels (low, moderate, or high). It should be noted that although some hazards are classified as posing “low” risk, their occurrence of varying or unprecedented magnitudes is still possible and will continue to be evaluated by each participating jurisdiction and during future plan updates.	Problem Statements Calculated Priority Risk Index (PRI)	N/A	N/A	N/A	Moderate-High flooding	N/A	Moderate A large number of critical facilities in close proximity to high or significant hazard dam	N/A	N/A	Low	Low	Moderate-High	Moderate	Moderate	High	Moderate	N/A	High tree hazards	N/A	N/A	N/A	Moderate	N/A	N/A	N/A	N/A	High tree hazards	Moderate	N/A	N/A	N/A	Moderate-High widespread concern, major issues in many areas	Low	High tree hazards	High tree hazards	N/A	N/A	N/A	N/A	High	N/A	High	N/A	N/A	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCRCOG	*New Haven*	*Woodbridge*	Problem Statements Calculated Priority Risk Index (PRI) values were used to classify each hazard according to three defined risk levels (low, moderate, or high). It should be noted that although some hazards are classified as posing “low” risk, their occurrence of varying or unprecedented magnitudes is still possible and will continue to be evaluated by each participating jurisdiction and during future plan updates.	Problem Statements Calculated Priority Risk Index (PRI)	N/A	N/A	N/A	N/A	Moderate landlines and cell towers vulnerable to wind/tree, have gone down in the past	Low-Moderate 1 critical facility in close proximity to significant hazard dam	N/A	N/A	Low	Low	Moderate	Moderate	Moderate	Moderate-High	Moderate	N/A	High	N/A	N/A	N/A	Moderate	N/A	N/A	N/A	N/A	Moderate-High	Moderate	N/A	N/A	N/A	N/A	Moderate	High	High	N/A	N/A	N/A	N/A	High	N/A	Low	N/A	N/A	Low	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCCOG	New London	Bozrah	Utilized and combined information from various State and federal agencies and interviews with each community with regional and town-level assessments. Primarily regional damage estimates for most hazards	HAZUS-MH; qualitative and historical data for other hazards	N/A	N/A	N/A	N/A	N/A	Low-Moderate: 2 dams total: 1 Class C; 1 Class B	N/A	N/A	Not discussed; considered the lowest-ranked hazard	Low-Moderate	N/A	N/A	N/A	Moderate-High	Moderate	N/A	High	N/A	N/A	N/A	Moderate to High	N/A	N/A	N/A	N/A	Moderate to High	Low-Moderate	N/A	N/A	N/A	N/A	Low	High	High	N/A	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	Discussed in Hurricanes/Summer Storms	Associated with strong winds (hurricanes and winter/summer storms)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCCOG	New London	Colchester	Utilized and combined information from various State and federal agencies and interviews with each community with regional and town-level assessments. Primarily regional damage estimates for most hazards	HAZUS-MH; qualitative and historical data for other hazards	N/A	N/A	N/A	N/A	N/A	Low: 19 dams total: 1 Class C; 3 Class BB; 15 unclassified	N/A	N/A	Not discussed; considered the lowest-ranked hazard	Low-Moderate	N/A	N/A	N/A	Moderate-High	Moderate	N/A	High	N/A	N/A	N/A	Moderate to High	N/A	N/A	N/A	N/A	Moderate to High	Low-Moderate	N/A	N/A	N/A	N/A	Moderate (Babcock Wildlife Area had significant wildfire in the past)	High	High	N/A	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	Discussed in Hurricanes/Summer Storms	Associated with strong winds (hurricanes and winter/summer storms)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCCOG	New London	East Lyme	Utilized and combined information from various State and federal agencies and interviews with each community with regional and town-level assessments. Primarily regional damage estimates for most hazards	HAZUS-MH; qualitative and historical data for other hazards	N/A	N/A	N/A	Discussed as part of Hurricanes, Storm Surge and Flood	N/A	Low: 4 dams total: 4 Class B. 1 additional dam in Montville upstream of East Lyme	N/A	N/A	Not discussed; considered the lowest-ranked hazard	Low-Moderate	N/A	N/A	N/A	Moderate-High	Moderate	N/A	High	N/A	N/A	N/A	Moderate to High	N/A	N/A	N/A	N/A	Moderate to High	Low-Moderate	N/A	N/A	N/A	N/A	Low to Moderate	High	High	N/A	N/A	N/A	N/A	Discussed in Winter Storms	N/A	Low	N/A	N/A	High	Discussed in Hurricanes/Summer Storms	Associated with strong winds (hurricanes and winter/summer storms)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCCOG	New London	Franklin	Utilized and combined information from various State and federal agencies and interviews with each community with regional and town-level assessments. Primarily regional damage estimates for most hazards	HAZUS-MH; qualitative and historical data for other hazards	N/A	N/A	N/A	N/A	N/A	Low: 3 dams total: 1 Class B; 1 Class A; 1 undefined	N/A	N/A	Not discussed; considered the lowest-ranked hazard	Low-Moderate	N/A	N/A	N/A	Moderate	Moderate	N/A	High	N/A	N/A	N/A	Moderate to High	N/A	N/A	N/A	N/A	Moderate to High	Low-Moderate	N/A	N/A	N/A	N/A	Low to Moderate	High	High	N/A	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	Discussed in Hurricanes/Summer Storms	Associated with strong winds (hurricanes and winter/summer storms)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCCOG	New London	Griswold	Utilized and combined information from various State and federal agencies and interviews with each community with regional and town-level assessments. Primarily regional damage estimates for most hazards	HAZUS-MH; qualitative and historical data for other hazards	N/A	N/A	N/A	N/A	N/A	Moderate-High: 7 total dams: 3 Class C; 4 Class B	N/A	N/A	Not discussed; considered the lowest-ranked hazard	Low-Moderate	N/A	N/A	N/A	High	Moderate	N/A	High	N/A	N/A	N/A	Moderate to High	N/A	N/A	N/A	N/A	Moderate to High	Low-Moderate	N/A	N/A	N/A	N/A	Moderate to High (Griswold routinely experiences minor brush fires)	High	High	N/A	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	Discussed in Hurricanes/Summer Storms	Associated with strong winds (hurricanes and winter/summer storms)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCCOG	New London	Groton (City)	Utilized and combined information from various State and federal agencies and interviews with each community with regional and town-level assessments. Primarily regional damage estimates for most hazards	HAZUS-MH; qualitative and historical data for other hazards	N/A	N/A	N/A	Discussed as part of Hurricanes, Storm Surge and Flood	N/A	Low: no dams located within the city, nor are there dams nearby upstream	N/A	N/A	Not discussed; considered the lowest-ranked hazard	Low-Moderate	N/A	N/A	N/A	Moderate	Moderate	N/A	High	N/A	N/A	N/A	Moderate to High	N/A	N/A	N/A	N/A	Moderate to High	Low-Moderate	N/A	N/A	N/A	N/A	Low	High	High	N/A	N/A	N/A	N/A	Discussed in Winter Storms	N/A	Low	N/A	N/A	Moderate	Discussed in Hurricanes/Summer Storms	Associated with strong winds (hurricanes and winter/summer storms)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCCOG	New London	Groton (Town)	Utilized and combined information from various State and federal agencies and interviews with each community with regional and town-level assessments. Primarily regional damage estimates for most hazards	HAZUS-MH; qualitative and historical data for other hazards	N/A	N/A	N/A	Discussed as part of Hurricanes, Storm Surge and Flood	N/A	Low: 3 dams total: 1 Class C; 2 Class B	N/A	N/A	Not discussed; considered the lowest-ranked hazard	Low-Moderate	N/A	N/A	N/A	Moderate-High	Moderate	N/A	High	N/A	N/A	N/A	Moderate to High	N/A	N/A	N/A	N/A	Moderate to High	Low-Moderate	N/A	N/A	N/A	N/A	Low	High	High	N/A	N/A	N/A	N/A	Discussed in Winter Storms	N/A	Low	N/A	N/A	High	Discussed in Hurricanes/Summer Storms	Associated with strong winds (hurricanes and winter/summer storms)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCCOG	New London	Lebanon	Utilized and combined information from various State and federal agencies and interviews with each community with regional and town-level assessments. Primarily regional damage estimates for most hazards	WinCOG HMP Final - September 2015	N/A	N/A	N/A	N/A	N/A	Low-Moderate: 36 dams total: 4 Class B; 4 Class BB; 11 Class A; 17 unrated - Class C dam in Colchester also has potential to cause damage to Lebanon	N/A	N/A	Mentioned as a low risk based on historic record and description	Low-Moderate	N/A	N/A	N/A	Moderate: 1938 flood most severe (100-year event); Two scour-critical bridges; Many detailed streams and approximated streams in FIS; assume Moderate. Mentioned in Plan as a Low Risk	Moderate	N/A	High: Mentioned as a high risk based on description in plan	N/A	N/A	N/A	N/A	N/A	Mentioned as a possible side effect of drought	N/A	N/A	"Concern" because they can cause major disasters such as flooding, fires, or tornadoes. Assume Moderate.	Mentioned as a Low risk; however, description mentions "fairly vulnerable" because of unpredictibility. Low frequency of occurrence but very damaging to a small area. Assume Moderate.	N/A	N/A	N/A	N/A	Low-Moderate	Discussed as part of other storms	Discusses Blizzards, Ice Storms, and Nor'easters; High	N/A	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	Discussed in Hurricanes/Summer Storms	Associated with strong winds (hurricanes and winter/summer storms)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCCOG	New London	Ledyard	Utilized and combined information from various State and federal agencies and interviews with each community with regional and town-level assessments. Primarily regional damage estimates for most hazards	HAZUS-MH; qualitative and historical data for other hazards	N/A	N/A	N/A	N/A	N/A	Low: 2 Class B	N/A	N/A	Not discussed; considered the lowest-ranked hazard	Low-Moderate	N/A	N/A	N/A	High	Moderate	N/A	High	N/A	N/A	N/A	Moderate to High	N/A	N/A	N/A	N/A	Moderate to High	Low-Moderate	N/A	N/A	N/A	N/A	Low	High	High	N/A	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	Discussed in Hurricanes/Summer Storms	Associated with strong winds (hurricanes and winter/summer storms)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCCOG	New London	Lisbon	Utilized and combined information from various State and federal agencies and interviews with each community with regional and town-level assessments. Primarily regional damage estimates for most hazards	HAZUS-MH; qualitative and historical data for other hazards	N/A	N/A	N/A	N/A	N/A	Low: 5 dams total: 1 Class C; 4 Class B (also considering additional upstream dams: Class C dam in Windham; 2 Class B dams in Sprague)	N/A	N/A	Not discussed; considered the lowest-ranked hazard	Low-Moderate	N/A	N/A	N/A	Low-Moderate	Moderate	N/A	High	N/A	N/A	N/A	Moderate to High	N/A	N/A	N/A	N/A	Moderate to High	Low-Moderate	N/A	N/A	N/A	N/A	Low to Moderate	High	High	N/A	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	Discussed in Hurricanes/Summer Storms	Associated with strong winds (hurricanes and winter/summer storms)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCCOG	Unaffiliated	Mashantucket Pequot Tribal Nation	HAZUS-MH	HAZUS-MH				N/A		Low: no dams located within the Reservation; the failure of one upstream dam may wash out one street				Low-Moderate	N/A	N/A	N/A	High	Moderate		High	N/A	N/A	N/A	Moderate to High	N/A	N/A	N/A	N/A	Moderate to High	Low-Moderate	N/A	N/A	N/A	N/A	Low to Moderate	High	High	N/A	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	Low	Discussed in Hurricanes/Summer Storms	Associated with strong winds (hurricanes and winter/summer storms)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SCCOG	Unaffiliated	Mohegan Tribe						N/A		Low: 1 dam total, and is in excellent condition				Low-Moderate	N/A	N/A	N/A	High	Moderate		High	N/A	N/A	N/A	Moderate to High	N/A	N/A	N/A	N/A	Moderate to High	Low-Moderate	N/A	N/A	N/A	N/A	Low	High	High	N/A	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	Low	Discussed in Hurricanes/Summer Storms	Associated with strong winds (hurricanes and winter/summer storms)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCCOG	New London	Montville	Utilized and combined information from various State and Federal agencies and interviews with each community with regional and town-level assessments. Primarily regional damage estimates for most hazards	HAZUS-MH; qualitative and historical data for other hazards	N/A	N/A	N/A	N/A	N/A	Moderate: 7 total dams: 1 Class C; 6 Class B	N/A	N/A	Not discussed; considered the lowest-ranked hazard	Low-Moderate	N/A	N/A	N/A	Moderate	Moderate	N/A	High	N/A	N/A	N/A	Moderate to High	N/A	N/A	N/A	N/A	Moderate to High	Low-Moderate	N/A	N/A	N/A	N/A	Moderate: based upon past events and many inaccessible areas of town	High	High	N/A	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	Discussed in Hurricanes/Summer Storms	Associated with strong winds (hurricanes and winter/summer storms)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCCOG	New London	New London	Utilized and combined information from various State and Federal agencies and interviews with each community with regional and town-level assessments. Primarily regional damage estimates for most hazards	HAZUS-MH; qualitative and historical data for other hazards	N/A	N/A	N/A	Discussed as part of Hurricanes, Storm Surge and Flood	N/A	Low: 2 dams total: 1 Class BB; 1 unclassified	N/A	N/A	Not discussed; considered the lowest-ranked hazard	Low-Moderate	N/A	N/A	N/A	Moderate-High	Moderate	N/A	High	N/A	N/A	N/A	Moderate to High	N/A	N/A	N/A	N/A	Moderate to High	Low-Moderate	N/A	N/A	N/A	N/A	Low	High	High	N/A	N/A	N/A	N/A	Discussed in Winter Storms	N/A	Low	N/A	N/A	High	Discussed in Hurricanes/Summer Storms	Associated with strong winds (hurricanes and winter/summer storms)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCCOG	New London	North Stonington	Utilized and combined information from various State and Federal agencies and interviews with each community with regional and town-level assessments. Primarily regional damage estimates for most hazards	HAZUS-MH; qualitative and historical data for other hazards	N/A	N/A	N/A	Discussed as part of Hurricanes, Storm Surge and Flood	N/A	Low: 3 dams total: 2 Class B; 1 Class BB	N/A	N/A	Not discussed; considered the lowest-ranked hazard	Low-Moderate	N/A	N/A	N/A	Moderate-High	Moderate	N/A	High	N/A	N/A	N/A	Moderate to High	N/A	N/A	N/A	N/A	Moderate to High	Low-Moderate	N/A	N/A	N/A	N/A	Moderate (typically experiences several brush fires each year)	High	High	N/A	N/A	N/A	N/A	Discussed in Winter Storms	N/A	Low	N/A	N/A	High	Discussed in Hurricanes/Summer Storms	Associated with strong winds (hurricanes and winter/summer storms)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCCOG	New London	Norwich	Utilized and combined information from various State and Federal agencies and interviews with each community with regional and town-level assessments. Primarily regional damage estimates for most hazards	HAZUS-MH; qualitative and historical data for other hazards	N/A	N/A	N/A	N/A	N/A	Moderate: 8 total dams: 5 ClassC; 3 Class B (additional 3 Class C upstream dams from Colchester, Bozrah and Windham)	N/A	N/A	Not discussed; considered the lowest-ranked hazard	Low-Moderate	N/A	N/A	N/A	Moderate-High	Moderate	N/A	High	N/A	N/A	N/A	Moderate to High	N/A	N/A	N/A	N/A	Moderate to High	Low-Moderate	N/A	N/A	N/A	N/A	Low-Moderate: based upon areas of inaccessibility and past events	High	High	N/A	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	Discussed in Hurricanes/Summer Storms	Associated with strong winds (hurricanes and winter/summer storms)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCCOG	New London	Preston	Utilized and combined information from various State and Federal agencies and interviews with each community with regional and town-level assessments. Primarily regional damage estimates for most hazards	HAZUS-MH; qualitative and historical data for other hazards	N/A	N/A	N/A	N/A	N/A	Low: 1 Class B (2 Class C dams in Norwich upstream, and 1 Class B upstream in Lisbon)	N/A	N/A	Not discussed; considered the lowest-ranked hazard	Low-Moderate	N/A	N/A	N/A	Moderate-High	Moderate	N/A	High	N/A	N/A	N/A	Moderate to High	N/A	N/A	N/A	N/A	Moderate to High	Low-Moderate	N/A	N/A	N/A	N/A	Low-Moderate: based upon areas of inaccessibility and past events	High	High	N/A	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	Discussed in Hurricanes/Summer Storms	Associated with strong winds (hurricanes and winter/summer storms)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCCOG	New London	Salem	Utilized and combined information from various State and Federal agencies and interviews with each community with regional and town-level assessments. Primarily regional damage estimates for most hazards	HAZUS-MH; qualitative and historical data for other hazards	N/A	N/A	N/A	N/A	N/A	Low: no high (Class C) or significant (Class B) hazard dams	N/A	N/A	Not discussed; considered the lowest-ranked hazard	Low-Moderate	N/A	N/A	N/A	Moderate-High	Moderate	N/A	High	N/A	N/A	N/A	Moderate to High	N/A	N/A	N/A	N/A	Moderate to High	Low-Moderate	N/A	N/A	N/A	N/A	Low	High	High	N/A	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	Discussed in Hurricanes/Summer Storms	Associated with strong winds (hurricanes and winter/summer storms)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCCOG	New London	Sprague	Utilized and combined information from various State and Federal agencies and interviews with each community with regional and town-level assessments. Primarily regional damage estimates for most hazards	HAZUS-MH; qualitative and historical data for other hazards	N/A	N/A	N/A	N/A	N/A	Moderate: 6 dams total: 1 Class C; 5 Class B	N/A	N/A	Not discussed; considered the lowest-ranked hazard	Low-Moderate	N/A	N/A	N/A	Moderate-High	Moderate	N/A	High	N/A	N/A	N/A	Moderate to High	N/A	N/A	N/A	N/A	Moderate to High	Low-Moderate	N/A	N/A	N/A	N/A	Low-Moderate: based upon areas of inaccessibility	High	High	N/A	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	Discussed in Hurricanes/Summer Storms	Associated with strong winds (hurricanes and winter/summer storms)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCCOG	New London	Stonington (Borough)	Utilized and combined information from various State and Federal agencies and interviews with each community with regional and town-level assessments. Primarily regional damage estimates for most hazards	HAZUS-MH; qualitative and historical data for other hazards	N/A	N/A	N/A	Discussed as part of Hurricanes, Storm Surge and Flood	N/A	Low: only 1 dam (Class not mentioned)	N/A	N/A	Not discussed; considered the lowest-ranked hazard	Low-Moderate	N/A	N/A	N/A	Low-Moderate	Moderate	N/A	High	N/A	N/A	N/A	Moderate to High	N/A	N/A	N/A	N/A	Moderate to High	Low-Moderate	N/A	N/A	N/A	N/A	Low-Moderate: based upon few developed areas with no public water access	High	High	N/A	N/A	N/A	N/A	Discussed in Winter Storms	N/A	Low	N/A	N/A	High	Discussed in Hurricanes/Summer Storms	Associated with strong winds (hurricanes and winter/summer storms)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCCOG	New London	Stonington (Town)	Utilized and combined information from various State and Federal agencies and interviews with each community with regional and town-level assessments. Primarily regional damage estimates for most hazards	HAZUS-MH; qualitative and historical data for other hazards	N/A	N/A	N/A	Discussed as part of Hurricanes, Storm Surge and Flood	N/A	Moderate: 3 Class C (also 1 Class B dam upstream in Ledyard)	N/A	N/A	Not discussed; considered the lowest-ranked hazard	Low-Moderate	N/A	N/A	N/A	High	Moderate	N/A	High	N/A	N/A	N/A	Moderate to High	N/A	N/A	N/A	N/A	Moderate to High	Low-Moderate	N/A	N/A	N/A	N/A	Low-Moderate: based upon few areas of inaccessibility	High	High	N/A	N/A	N/A	N/A	Discussed in Winter Storms	N/A	Low	N/A	N/A	High	Discussed in Hurricanes/Summer Storms	Associated with strong winds (hurricanes and winter/summer storms)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCCOG	New London	Waterford	Utilized and combined information from various State and Federal agencies and interviews with each community with regional and town-level assessments. Primarily regional damage estimates for most hazards	HAZUS-MH; qualitative and historical data for other hazards	N/A	N/A	N/A	Discussed as part of Hurricanes, Storm Surge and Flood	N/A	Low-Moderate: 3 dams total: 1 Class C; 2 Class B	N/A	N/A	Not discussed; considered the lowest-ranked hazard	Low-Moderate	N/A	N/A	N/A	Moderate-High	Moderate	N/A	High	N/A	N/A	N/A	Moderate to High	N/A	N/A	N/A	N/A	Moderate to High	Low-Moderate	N/A	N/A	N/A	N/A	Moderate: based upon past events and several small ATV trails (areas inaccessible to fire equipment)	High	High	N/A	N/A	N/A	N/A	Discussed in Winter Storms	N/A	Low	N/A	N/A	High	Discussed in Hurricanes/Summer Storms	Associated with strong winds (hurricanes and winter/summer storms)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCCOG	Windham	Windham	Utilized and combined information from various State and Federal agencies and interviews with each community with regional and town-level assessments. Primarily regional damage estimates for most hazards	SECOG - Windham Annex - Draft - August 2017	N/A	N/A	N/A	N/A	N/A	27 dams total: 2 Class C (also, 2 Class C dams in Mansfield); 7 Class B; 2 Class BB; 13 Class A or AA; rest are unassigned: Moderate to High Risk	N/A	N/A	Mentioned as a possible cause for wildfires; also mentioned in the Regional Plan (August 2017) as a Low risk for Windham County).	Low-Moderate	N/A	N/A	N/A	Moderate-High	Moderate	N/A	Assume Moderate-High based on description in plan and previous reimbursements for wind damage loss	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Moderate to high concern because they can cause major wind and flood damages.	"Fairly vulnerable" because of unpredictibility. Low frequency of occurrence but very damaging to a small area. Assume Low.	N/A	N/A	N/A	N/A	Low	Discussed as part of other storms	Discusses Blizzards, Ice Storms, and Nor'easters; High	N/A	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	Discussed in Hurricanes/Summer Storms	Associated with strong winds (hurricanes and winter/summer storms)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRCOG	Tolland	Andover	CRCOG proposed list of hazards based on HAZUS-MH, NFIP, local town info, historical weather records, and with concurrence from planning sub-committee and local municipalities.	N/A	N/A	N/A	N/A	N/A	N/A	533 dams in Region (33 Class C); likely significant damage. Assume M-H	N/A	N/A	Moderate risk assumed "periodically occur with serious economic and social impacts"	Low	N/A	N/A	N/A	Two areas of flooding concern due to debris accumulation and eroision: Low to moderate	N/A	N/A	Moderate-High since coastal CT bears the initial brunt of such storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Discussed as part of hurricanes	Assume moderate: Hartford and Tolland county at the highest risk of tornadoes in the State; majority are of "lesser intensity" but larger ones have the capability for widespread destruction	N/A	N/A	N/A	N/A	"Some" fire risk to residential areas; Low to moderate	Discussed as part of other storms	High	Not fully evaluated; however, mentioned as a factor in impacting temperature, precipitation and wind patterns (utlimately affecting frequency or intensity of floods, droughts, winter storms and damaging rain storms)	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRCOG	Tolland	Bolton	CRCOG proposed list of hazards based on HAZUS-MH, NFIP, local town info, historical weather records, and with concurrence from planning sub-committee and local municipalities.	N/A	N/A	N/A	N/A	N/A	N/A	533 dams in Region (33 Class C); likely significant damage. Assume M-H	N/A	N/A	Moderate risk assumed "periodically occur with serious economic and social impacts"	Low	N/A	N/A	N/A	Couple of flooding areas due to undersized / older culverts. Low to moderate	N/A	N/A	Moderate-High since coastal CT bears the initial brunt of such storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Discussed as part of hurricanes	Assume moderate: Hartford and Tolland county at the highest risk of tornadoes in the State; majority are of "lesser intensity" but larger ones have the capability for widespread destruction	N/A	N/A	N/A	N/A	Discussed as a low concern region-wide. Assume low.	Discussed as part of other storms	High	Not fully evaluated; however, mentioned as a factor in impacting temperature, precipitation and wind patterns (utlimately affecting frequency or intensity of floods, droughts, winter storms and damaging rain storms)	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRCOG	Tolland	Columbia	Utilized and combined information from various State and Federal agencies and interviews with each community with regional and town-level assessments. Primarily regional damage estimates for most hazards. Plan uses 2014 State HMPlan estimates for all hazards.	WinCOG HMP Final - September 2015	N/A	N/A	N/A	N/A	N/A	11 dams total: 1 Class C; 1 Class B; 3 Class BB; six Class A or AA - Low to Moderate risk	N/A	N/A	Mentioned as a low risk based on historic record and description	Low	N/A	N/A	N/A	Ice Jams can occur along the Hop River and the Willimantic River. A portion of Hop River Road closed annually and the Hop River experiences minor flooding and minor damage annually. 1955 flood was 200-year event. Assume High.	N/A	N/A	Mentioned as a high risk based on description in plan	N/A	N/A	N/A	N/A	N/A	Mentioned as a possible side effect of drought	N/A	N/A	"Concern" because they can cause major disasters such as flooding, fires, or tornadoes. Assume Moderate.	Mentioned as a Low risk; however, description mentions "fairly vulnerable" because of unpredictibility. Low frequency of occurrence but very damaging to a small area. Assume Moderate.	N/A	N/A	N/A	N/A	Mentioned as a Low risk; however, description of some areas in the Town have extensive thick forested cover; Assume Low to moderate	Discussed as part of other storms	Discusses Blizzards, Ice Storms, and Nor'easters; High	N/A	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRCOG	Tolland	Coventry	Utilized and combined information from various State and Federal agencies and interviews with each community with regional and town-level assessments. Primarily regional damage estimates for most hazards. Plan uses 2014 State HMPlan estimates for all hazards.	WinCOG HMP Final - September 2015	N/A	N/A	N/A	N/A	N/A	24 dams total: 1 Class B; 1 Class BB; 19 Class A or AA; 3 not rated - Low to Moderate risk	N/A	N/A	Mentioned as a low risk based on historic record and description	Low	N/A	N/A	N/A	Mentioned as a Moderate Risk	N/A	N/A	Mentioned as a high risk based on description in plan	N/A	N/A	N/A	N/A	N/A	Mentioned as a possible side effect of drought	N/A	N/A	"Concern" because they can cause major disasters such as flooding, fires, or tornadoes. Assume Moderate.	Mentioned as a Low risk; however, description mentions "fairly vulnerable" because of unpredictibility. Low frequency of occurrence but very damaging to a small area. Assume Moderate.	N/A	N/A	N/A	N/A	Mentioned as a Low risk; however, description of some areas in the Town have extensive thick forested cover; Assume Low to moderate	Discussed as part of other storms	Discusses Blizzards, Ice Storms, and Nor'easters; High	N/A	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRCOG	Tolland	Ellington	CRCOG proposed list of hazards based on HAZUS-MH, NFIP, local town info, historical weather records, and with concurrence from planning sub-committee and local municipalities.	N/A	N/A	N/A	N/A	N/A	N/A	533 dams in Region (33 Class C); likely significant damage. Assume M-H	N/A	N/A	Moderate risk assumed "periodically occur with serious economic and social impacts"	Low	N/A	N/A	N/A	Flooding can "easily disrupt" the transportation network, given the vast floodplain area and steep terrain on eastern edge of town. Assume Moderate to High	N/A	N/A	Moderate-High since coastal CT bears the initial brunt of such storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Discussed as part of hurricanes	Assume moderate: Hartford and Tolland county at the highest risk of tornadoes in the State; majority are of "lesser intensity" but larger ones have the capability for widespread destruction	N/A	N/A	N/A	N/A	Discussed as a low concern region-wide. Assume low.	Discussed as part of other storms	High	Not fully evaluated; however, mentioned as a factor in impacting temperature, precipitation and wind patterns (utlimately affecting frequency or intensity of floods, droughts, winter storms and damaging rain storms)	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRCOG	Tolland	Hebron	CRCOG proposed list of hazards based on HAZUS-MH, NFIP, local town info, historical weather records, and with concurrence from planning sub-committee and local municipalities.	N/A	N/A	N/A	N/A	N/A	N/A	533 dams in Region (33 Class C); likely significant damage. Assume M-H	N/A	N/A	Moderate risk assumed "periodically occur with serious economic and social impacts"	Low	N/A	N/A	N/A	Flooding can "easily disrupt" the transportation network, given the vast floodplain area and steep terrain on eastern edge of town. Assume Moderate to High	N/A	N/A	Moderate-High since coastal CT bears the initial brunt of such storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Discussed as part of hurricanes	Assume moderate: Hartford and Tolland county at the highest risk of tornadoes in the State; majority are of "lesser intensity" but larger ones have the capability for widespread destruction	N/A	N/A	N/A	N/A	Discussed as a low concern region-wide. Assume low.	Discussed as part of other storms	High	Not fully evaluated; however, mentioned as a factor in impacting temperature, precipitation and wind patterns (utlimately affecting frequency or intensity of floods, droughts, winter storms and damaging rain storms)	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRCOG	Tolland	Mansfield	Utilized and combined information from various State and Federal agencies and interviews with each community with regional and town-level assessments. Primarily regional damage estimates for most hazards	WinCOG HMP Final - September 2015	N/A	N/A	N/A	N/A	N/A	4 Class B and 3 Class C dams - High risk	N/A	N/A	Assume moderate risk based on historic record and description	Low	Dismissed due to low likelihood of occurrence or minimal impacts on the region	N/A	Dismissed due to low likelihood of occurrence or minimal impacts on the region	Ice Jams can occur along the Willimantic River; home on Laurel Lane is stranded during flooding; up to 7 homes on Thornbush Road flooded every five years; Bassett Bridge Road closed at time due to high water (Mansfield Hollow Lake flood control area); four scour-critical bridges; Assume High	N/A	N/A	Assume Moderate to High based on description in plan	N/A	N/A	N/A	N/A	N/A	Mentioned as a possible side effect of drought	N/A	N/A	"Concern" because they can cause major disasters such as flooding, fires, or tornadoes. Assume Moderate.	"Fairly vulnerable" because of unpredictibility. Low frequency of occurrence but very damaging to a small area. Assume Moderate.	N/A	N/A	N/A	N/A	Extensive thick forested cover; Assume Low to moderate	Discussed as part of other storms	Discusses Blizzards, Ice Storms, and Nor'easters; High	N/A	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRCOG	Tolland	Somers	CRCOG proposed list of hazards based on HAZUS-MH, NFIP, local town info, historical weather records, and with concurrence from planning sub-committee and local municipalities.	N/A	N/A	N/A	N/A	N/A	N/A	533 dams in Region (33 Class C); likely significant damage. Assume M-H	N/A	N/A	Moderate risk assumed "periodically occur with serious economic and social impacts"	Low	N/A	N/A	N/A	Flooding can "easily disrupt" the transportation network, given the vast floodplain area and steep terrain on eastern edge of town. Assume Moderate to High	N/A	N/A	Moderate-High since coastal CT bears the initial brunt of such storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Discussed as part of hurricanes	Assume moderate: Hartford and Tolland county at the highest risk of tornadoes in the State; majority are of "lesser intensity" but larger ones have the capability for widespread destruction	N/A	N/A	N/A	N/A	Discussed as a low concern region-wide. Assume low.	Discussed as part of other storms	High	Not fully evaluated; however, mentioned as a factor in impacting temperature, precipitation and wind patterns (utlimately affecting frequency or intensity of floods, droughts, winter storms and damaging rain storms)	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRCOG	Tolland	Stafford	CRCOG proposed list of hazards based on HAZUS-MH, NFIP, local town info, historical weather records, and with concurrence from planning sub-committee and local municipalities.	N/A	N/A	N/A	N/A	N/A	N/A	3 Class C dams; High Risk	N/A	N/A	Moderate risk assumed "periodically occur with serious economic and social impacts"	Low	N/A	N/A	N/A	Flooding can "easily disrupt" the transportation network, given the vast floodplain area and steep terrain on eastern edge of town. Assume Moderate to High	N/A	N/A	Moderate-High since coastal CT bears the initial brunt of such storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Discussed as part of hurricanes	Assume moderate: Hartford and Tolland county at the highest risk of tornadoes in the State; majority are of "lesser intensity" but larger ones have the capability for widespread destruction	N/A	N/A	N/A	N/A	Discussed as a low concern region-wide. Assume low.	Discussed as part of other storms	High	Not fully evaluated; however, mentioned as a factor in impacting temperature, precipitation and wind patterns (utlimately affecting frequency or intensity of floods, droughts, winter storms and damaging rain storms)	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRCOG	Tolland	Tolland	CRCOG proposed list of hazards based on HAZUS-MH, NFIP, local town info, historical weather records, and with concurrence from planning sub-committee and local municipalities.	N/A	N/A	N/A	N/A	N/A	N/A	533 dams in Region (33 Class C); likely significant damage. Assume M-H	N/A	N/A	Moderate risk assumed "periodically occur with serious economic and social impacts"	Low	N/A	N/A	N/A	Flooding can "easily disrupt" the transportation network, given the vast floodplain area and steep terrain on eastern edge of town. Assume Moderate to High	N/A	N/A	Moderate-High since coastal CT bears the initial brunt of such storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Discussed as part of hurricanes	Assume moderate: Hartford and Tolland county at the highest risk of tornadoes in the State; majority are of "lesser intensity" but larger ones have the capability for widespread destruction	N/A	N/A	N/A	N/A	Large amount of open space and brush fires are a concern. Assume Moderate.	Discussed as part of other storms	High	Not fully evaluated; however, mentioned as a factor in impacting temperature, precipitation and wind patterns (utlimately affecting frequency or intensity of floods, droughts, winter storms and damaging rain storms)	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRCOG	Tolland	Vernon	CRCOG proposed list of hazards based on HAZUS-MH, NFIP, local town info, historical weather records, and with concurrence from planning sub-committee and local municipalities.	N/A	N/A	N/A	N/A	N/A	N/A	3 Class C dams; Moderate to High Risk	N/A	N/A	Moderate risk assumed "periodically occur with serious economic and social impacts"	Low	N/A	N/A	N/A	Flooding can "easily disrupt" the transportation network, given the vast floodplain area and steep terrain on eastern edge of town. Assume Moderate to High	N/A	N/A	Moderate-High since coastal CT bears the initial brunt of such storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Discussed as part of hurricanes	Assume moderate: Hartford and Tolland county at the highest risk of tornadoes in the State; majority are of "lesser intensity" but larger ones have the capability for widespread destruction	N/A	N/A	N/A	N/A	Discussed as a low concern region-wide. Assume low.	Discussed as part of other storms	High	Not fully evaluated; however, mentioned as a factor in impacting temperature, precipitation and wind patterns (utlimately affecting frequency or intensity of floods, droughts, winter storms and damaging rain storms)	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRCOG	Tolland	Willington	Utilized and combined information from various State and Federal agencies and interviews with each community with regional and town-level assessments. Primarily regional damage estimates for most hazards	WinCOG HMP Final - September 2015	N/A	N/A	N/A	N/A	N/A	5 Class B significant hazard dams - Moderate to High risk	N/A	N/A	Assume moderate risk based on historic record and description	Low	Dismissed due to low likelihood of occurrence or minimal impacts on the region	N/A	Dismissed due to low likelihood of occurrence or minimal impacts on the region	Seasonal campgrounds vulnerable to flooding; October 2005 floods closed several roads; 1955 flood was 200-year event; Assume Moderate to High	N/A	N/A	Assume Moderate to High based on description in plan	N/A	N/A	N/A	N/A	N/A	Mentioned as a possible side effect of drought	N/A	N/A	"Concern" because they can cause major disasters such as flooding, fires, or tornadoes. Assume Moderate.	"Fairly vulnerable" because of unpredictibility. Low frequency of occurrence but very damaging to a small	N/A	N/A	N/A	N/A	Extensive thick forested cover; Assume Low to moderate	Discussed as part of other storms	Discusses Blizzards, Ice Storms, and Nor'easters; High	N/A	N/A	N/A	N/A	Discussed in Winter Storms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

																															area. Assume Moderate.																												
NECOG	Windham	Ashford	Unlikely/Minor/Negligible (Low Risk): 1; Possible/Limited/Small (Moderate Risk): 2; Likely/Critical/Moderate (Moderate-High Risk): 3.0; Highly Likely/Catastrophic/Large (High Risk): 4 RF Value = Probability x. 3 + Impact x .3 + Spacial Extent x .2 + Warming Time x .1 + Duration x .1	{Effects of flooding, hurricane wind and earthquake events were modeled using GIS. NCDC at NOAA: The Storm Events Database; SHELDUS; HAZUS-MH; Additional Sources} Natural Hazard Identification and Risk Assessment Matrix	N/A	N/A	N/A	N/A	N/A	1 Class C, 3 Class B; Moderate-High	N/A	N/A	Moderate, Total Risk Value = 2.2 (Entire Region)	Low, Total Risk Value = 1.9 (Entire Region)	Low, even though Total Risk Value = 3.0 (M-H) for Entire Region, it is for Putnam high probability only.	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.1	N/A	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	N/A	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.4 (Entire Region)	N/A	N/A	N/A	N/A	N/A	High, Total Risk Value = 3.2 (Entire Region)	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NECOG	Windham	Brooklyn	Unlikely/Minor/Negligible (Low Risk): 1; Possible/Limited/Small (Moderate Risk): 2; Likely/Critical/Moderate (Moderate-High Risk): 3.0; Highly Likely/Catastrophic/Large (High Risk): 4 RF Value = Probability x. 3 + Impact x .3 + Spacial Extent x .2 + Warming Time x .1 + Duration x .1	{Effects of flooding, hurricane wind and earthquake events were modeled using GIS. NCDC at NOAA: The Storm Events Database; SHELDUS; HAZUS-MH; Additional Sources} Natural Hazard Identification and Risk Assessment Matrix	N/A	N/A	N/A	N/A	N/A	1 Class B; Low	N/A	N/A	Moderate, Total Risk Value = 2.2 (Entire Region)	Low, Total Risk Value = 1.9 (Entire Region)	Low, even though Total Risk Value = 3.0 (M-H) for Entire Region, it is for Putnam high probability only.	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.1	N/A	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	N/A	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.4 (Entire Region)	N/A	N/A	N/A	N/A	N/A	High, Total Risk Value = 3.2 (Entire Region)	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NECOG	Windham	Canterbury	Unlikely/Minor/Negligible (Low Risk): 1; Possible/Limited/Small (Moderate Risk): 2; Likely/Critical/Moderate (Moderate-High Risk): 3.0; Highly Likely/Catastrophic/Large (High Risk): 4 RF Value = Probability x. 3 + Impact x .3 + Spacial Extent x .2 + Warming Time x .1 + Duration x .1	{Effects of flooding, hurricane wind and earthquake events were modeled using GIS. NCDC at NOAA: The Storm Events Database; SHELDUS; HAZUS-MH; Additional Sources} Natural Hazard Identification and Risk Assessment Matrix	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Moderate, Total Risk Value = 2.2 (Entire Region)	Low, Total Risk Value = 1.9 (Entire Region)	Low, even though Total Risk Value = 3.0 (M-H) for Entire Region, it is for Putnam high probability only.	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.1	N/A	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	N/A	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.4 (Entire Region)	N/A	N/A	N/A	N/A	N/A	High, Total Risk Value = 3.2 (Entire Region)	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NECOG	Windham	Chaplin	Unlikely/Minor/Negligible (Low Risk): 1; Possible/Limited/Small (Moderate Risk): 2; Likely/Critical/Moderate (Moderate-High Risk): 3.0; Highly Likely/Catastrophic/Large (High Risk): 4 RF Value = Probability x. 3 + Impact x .3 + Spacial Extent x .2 + Warming Time x .1 + Duration x .1	{Effects of flooding, hurricane wind and earthquake events were modeled using GIS. NCDC at NOAA: The Storm Events Database; SHELDUS; HAZUS-MH; Additional Sources} Natural Hazard Identification and Risk Assessment Matrix	N/A	N/A	N/A	N/A	N/A	1 Class B; Low	N/A	N/A	Moderate, Total Risk Value = 2.2 (Entire Region)	Low, Total Risk Value = 1.9 (Entire Region)	Low, even though Total Risk Value = 3.0 (M-H) for Entire Region, it is for Putnam high probability only.	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.1	N/A	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	N/A	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.4 (Entire Region)	N/A	N/A	N/A	N/A	N/A	High, Total Risk Value = 3.2 (Entire Region)	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NECOG	Windham	Eastford	Unlikely/Minor/Negligible (Low Risk): 1; Possible/Limited/Small (Moderate Risk): 2; Likely/Critical/Moderate (Moderate-High Risk): 3.0; Highly Likely/Catastrophic/Large (High Risk): 4 RF Value = Probability x. 3 + Impact x .3 + Spacial Extent x .2 + Warming Time x .1 + Duration x .1	{Effects of flooding, hurricane wind and earthquake events were modeled using GIS. NCDC at NOAA: The Storm Events Database; SHELDUS; HAZUS-MH; Additional Sources} Natural Hazard Identification and Risk Assessment Matrix	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Moderate, Total Risk Value = 2.2 (Entire Region)	Low, Total Risk Value = 1.9 (Entire Region)	Low, even though Total Risk Value = 3.0 (M-H) for Entire Region, it is for Putnam high probability only.	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.1	N/A	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	N/A	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.4 (Entire Region)	N/A	N/A	N/A	N/A	N/A	High, Total Risk Value = 3.2 (Entire Region)	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NECOG	Windham	Hampton	Unlikely/Minor/Negligible (Low Risk): 1; Possible/Limited/Small (Moderate Risk): 2; Likely/Critical/Moderate (Moderate-High Risk): 3.0; Highly Likely/Catastrophic/Large (High Risk): 4 RF Value = Probability x. 3 + Impact x .3 + Spacial Extent x .2 + Warming Time x .1 + Duration x .1	{Effects of flooding, hurricane wind and earthquake events were modeled using GIS. NCDC at NOAA: The Storm Events Database; SHELDUS; HAZUS-MH; Additional Sources} Natural Hazard Identification and Risk Assessment Matrix	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Moderate, Total Risk Value = 2.2 (Entire Region)	Low, Total Risk Value = 1.9 (Entire Region)	Low, even though Total Risk Value = 3.0 (M-H) for Entire Region, it is for Putnam high probability only.	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.1	N/A	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	N/A	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.4 (Entire Region)	N/A	N/A	N/A	N/A	N/A	High, Total Risk Value = 3.2 (Entire Region)	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NECOG	Windham	Killingly	Unlikely/Minor/Negligible (Low Risk): 1; Possible/Limited/Small (Moderate Risk): 2; Likely/Critical/Moderate (Moderate-High Risk): 3.0; Highly Likely/Catastrophic/Large (High Risk): 4 RF Value = Probability x. 3 + Impact x .3 + Spacial Extent x .2 + Warming Time x .1 + Duration x .1	{Effects of flooding, hurricane wind and earthquake events were modeled using GIS. NCDC at NOAA: The Storm Events Database; SHELDUS; HAZUS-MH; Additional Sources} Natural Hazard Identification and Risk Assessment Matrix	N/A	N/A	N/A	N/A	N/A	1 Class C, 7 Class B; Moderate-High	N/A	N/A	Moderate, Total Risk Value = 2.2 (Entire Region)	Low, Total Risk Value = 1.9 (Entire Region)	Low, even though Total Risk Value = 3.0 (M-H) for Entire Region, it is for Putnam high probability only.	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.1	N/A	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	N/A	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.4 (Entire Region)	N/A	N/A	N/A	N/A	N/A	High, Total Risk Value = 3.2 (Entire Region)	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NECOG	Hartford	Plainfield	Unlikely/Minor/Negligible (Low Risk): 1; Possible/Limited/Small (Moderate Risk): 2; Likely/Critical/Moderate (Moderate-High Risk): 3.0; Highly Likely/Catastrophic/Large (High Risk): 4 RF Value = Probability x. 3 + Impact x .3 + Spacial Extent x .2 + Warming Time x .1 + Duration x .1	{Effects of flooding, hurricane wind and earthquake events were modeled using GIS. NCDC at NOAA: The Storm Events Database; SHELDUS; HAZUS-MH; Additional Sources} Natural Hazard Identification and Risk Assessment Matrix	N/A	N/A	N/A	N/A	N/A	1 Class C; Moderate	N/A	N/A	Moderate, Total Risk Value = 2.2 (Entire Region)	Low, Total Risk Value = 1.9 (Entire Region)	Low, even though Total Risk Value = 3.0 (M-H) for Entire Region, it is for Putnam high probability only.	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.1	N/A	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	N/A	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.4 (Entire Region)	N/A	N/A	N/A	N/A	N/A	High, Total Risk Value = 3.2 (Entire Region)	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NECOG	Windham	Pomfret	Unlikely/Minor/Negligible (Low Risk): 1; Possible/Limited/Small (Moderate Risk): 2; Likely/Critical/Moderate (Moderate-High Risk): 3.0; Highly Likely/Catastrophic/Large (High Risk): 4 RF Value = Probability x. 3 + Impact x .3 + Spacial Extent x .2 + Warming Time x .1 + Duration x .1	{Effects of flooding, hurricane wind and earthquake events were modeled using GIS. NCDC at NOAA: The Storm Events Database; SHELDUS; HAZUS-MH; Additional Sources} Natural Hazard Identification and Risk Assessment Matrix	N/A	N/A	N/A	N/A	N/A	1 Class C, 1 Class B; Moderate-High	N/A	N/A	Moderate, Total Risk Value = 2.2 (Entire Region)	Low, Total Risk Value = 1.9 (Entire Region)	Low, even though Total Risk Value = 3.0 (M-H) for Entire Region, it is for Putnam high probability only.	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.1	N/A	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	N/A	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.4 (Entire Region)	N/A	N/A	N/A	N/A	N/A	High, Total Risk Value = 3.2 (Entire Region)	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NECOG	Windham	Putnam	Unlikely/Minor/Negligible (Low Risk): 1; Possible/Limited/Small (Moderate Risk): 2; Likely/Critical/Moderate (Moderate-High Risk): 3.0; Highly Likely/Catastrophic/Large (High Risk): 4 RF Value = Probability x. 3 + Impact x .3 + Spacial Extent x .2 + Warming Time x .1 + Duration x .1	{Effects of flooding, hurricane wind and earthquake events were modeled using GIS. NCDC at NOAA: The Storm Events Database; SHELDUS; HAZUS-MH; Additional Sources} Natural Hazard Identification and Risk Assessment Matrix	N/A	N/A	N/A	N/A	N/A	2 Class B; Low	N/A	N/A	Moderate, Total Risk Value = 2.2 (Entire Region)	Low, Total Risk Value = 1.9 (Entire Region)	Moderate-High, Total Risk Value = 3.0 (Entire Region, includes Putnam)	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.1	N/A	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	N/A	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.4 (Entire Region)	N/A	N/A	N/A	N/A	N/A	High, Total Risk Value = 3.2 (Entire Region)	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NECOG	Windham	Scotland	Unlikely/Minor/Negligible (Low Risk): 1; Possible/Limited/Small (Moderate Risk): 2; Likely/Critical/Moderate (Moderate-High Risk): 3.0; Highly Likely/Catastrophic/Large (High Risk): 4 RF Value = Probability x. 3 + Impact x .3 + Spacial Extent x .2 + Warming Time x .1 + Duration x .1	{Effects of flooding, hurricane wind and earthquake events were modeled using GIS. NCDC at NOAA: The Storm Events Database; SHELDUS; HAZUS-MH; Additional Sources} Natural Hazard Identification and Risk Assessment Matrix	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Moderate, Total Risk Value = 2.2 (Entire Region)	Low, Total Risk Value = 1.9 (Entire Region)	Low, even though Total Risk Value = 3.0 (M-H) for Entire Region, it is for Putnam high probability only.	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.1	N/A	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	N/A	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.4 (Entire Region)	N/A	N/A	N/A	N/A	N/A	High, Total Risk Value = 3.2 (Entire Region)	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NECOG	Windham	Sterling	Unlikely/Minor/Negligible (Low Risk): 1; Possible/Limited/Small (Moderate Risk): 2; Likely/Critical/Moderate (Moderate-High Risk): 3.0; Highly Likely/Catastrophic/Large (High Risk): 4 RF Value = Probability x. 3 + Impact x .3 + Spacial Extent x .2 + Warming Time x .1 + Duration x .1	{Effects of flooding, hurricane wind and earthquake events were modeled using GIS. NCDC at NOAA: The Storm Events Database; SHELDUS; HAZUS-MH; Additional Sources} Natural Hazard Identification and Risk Assessment Matrix	N/A	N/A	N/A	N/A	N/A	1 Class C; Moderate	N/A	N/A	Moderate, Total Risk Value = 2.2 (Entire Region)	Low, Total Risk Value = 1.9 (Entire Region)	Low, even though Total Risk Value = 3.0 (M-H) for Entire Region, it is for Putnam high probability only.	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.1	N/A	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	N/A	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.4 (Entire Region)	N/A	N/A	N/A	N/A	N/A	High, Total Risk Value = 3.2 (Entire Region)	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NECOG	Windham	Thompson	Unlikely/Minor/Negligible (Low Risk): 1; Possible/Limited/Small (Moderate Risk): 2; Likely/Critical/Moderate (Moderate-High Risk): 3.0; Highly Likely/Catastrophic/Large (High Risk): 4 RF Value = Probability x. 3 + Impact x .3 + Spacial Extent x .2 + Warming Time x .1 + Duration x .1	{Effects of flooding, hurricane wind and earthquake events were modeled using GIS. NCDC at NOAA: The Storm Events Database; SHELDUS; HAZUS-MH; Additional Sources} Natural Hazard Identification and Risk Assessment Matrix	N/A	N/A	N/A	N/A	N/A	3 Class C, 3 Class B; Moderate-High	N/A	N/A	Moderate, Total Risk Value = 2.2 (Entire Region)	Low, Total Risk Value = 1.9 (Entire Region)	Low, even though Total Risk Value = 3.0 (M-H) for Entire Region, it is for Putnam high probability only.	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.1	N/A	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	N/A	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.4 (Entire Region)	N/A	N/A	N/A	N/A	N/A	High, Total Risk Value = 3.2 (Entire Region)	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NECOG	Tolland	Union	Unlikely/Minor/Negligible (Low Risk): 1; Possible/Limited/Small (Moderate Risk): 2; Likely/Critical/Moderate (Moderate-High Risk): 3.0; Highly Likely/Catastrophic/Large (High Risk): 4 RF Value = Probability x. 3 + Impact x .3 + Spacial Extent x .2 + Warming Time x .1 + Duration x .1	{Effects of flooding, hurricane wind and earthquake events were modeled using GIS. NCDC at NOAA: The Storm Events Database; SHELDUS; HAZUS-MH; Additional Sources} Natural Hazard Identification and Risk Assessment Matrix	N/A	N/A	N/A	N/A	N/A	2 Class B; Low	N/A	N/A	Moderate, Total Risk Value = 2.2 (Entire Region)	Low, Total Risk Value = 1.9 (Entire Region)	Low, even though Total Risk Value = 3.0 (M-H) for Entire Region, it is for Putnam high probability only.	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.1	N/A	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	N/A	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.4 (Entire Region)	N/A	N/A	N/A	N/A	N/A	High, Total Risk Value = 3.2 (Entire Region)	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NECOG	New London	Voluntown	Unlikely/Minor/Negligible (Low Risk): 1; Possible/Limited/Small (Moderate Risk): 2; Likely/Critical/Moderate (Moderate-High Risk): 3.0; Highly Likely/Catastrophic/Large (High Risk): 4 RF Value = Probability x. 3 + Impact x .3 + Spacial Extent x .2 + Warming Time x .1 + Duration x .1	{Effects of flooding, hurricane wind and earthquake events were modeled using GIS. NCDC at NOAA: The Storm Events Database; SHELDUS; HAZUS-MH; Additional Sources} Natural Hazard Identification and Risk Assessment Matrix	N/A	N/A	N/A	N/A	N/A	1 Class C, 2 Class B; Moderate-High	N/A	N/A	Moderate, Total Risk Value = 2.2 (Entire Region)	Low, Total Risk Value = 1.9 (Entire Region)	Low, even though Total Risk Value = 3.0 (M-H) for Entire Region, it is for Putnam high probability only.	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.1	N/A	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	N/A	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.4 (Entire Region)	N/A	N/A	N/A	N/A	N/A	High, Total Risk Value = 3.2 (Entire Region)	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NECOG	Windham	Woodstock	Unlikely/Minor/Negligible (Low Risk): 1; Possible/Limited/Small (Moderate Risk): 2; Likely/Critical/Moderate (Moderate-High Risk): 3.0; Highly Likely/Catastrophic/Large (High Risk): 4 RF Value = Probability x. 3 + Impact x .3 + Spacial Extent x .2 + Warming Time x .1 + Duration x .1	{Effects of flooding, hurricane wind and earthquake events were modeled using GIS. NCDC at NOAA: The Storm Events Database; SHELDUS; HAZUS-MH; Additional Sources} Natural Hazard Identification and Risk Assessment Matrix	N/A	N/A	N/A	N/A	N/A	5 Class B; Moderate	N/A	N/A	Moderate, Total Risk Value = 2.2 (Entire Region)	Low, Total Risk Value = 1.9 (Entire Region)	Low, even though Total Risk Value = 3.0 (M-H) for Entire Region, it is for Putnam high probability only.	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.1	N/A	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	N/A	N/A	N/A	N/A	High, Total Risk Value 3.4 (Entire Region)	Moderate, Total Risk Value = 2.4 (Entire Region)	N/A	N/A	N/A	N/A	N/A	High, Total Risk Value = 3.2 (Entire Region)	High, Total Risk Value = 3.2 (Entire Region)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Loss Estimation



Max. Energy/stroke, Accelerator Protection Core	Max. Energy/stroke, Accelerator Chamber Core	Max. Energy/stroke, Accelerator Protection Core	Max. Energy/stroke, Accelerator Core - Total	Marine Range Emission Core	Marine Range Cameras Core	Marine Range Shoreline Core	Marine Range Core - Total	Hospital Accreditation	Hospital Core	Hospital Accreditation	Hospital Core - Total	Asia Pacific Emissions Core	Asia Pacific Cameras Core	Asia Pacific Shoreline Core	Asia Pacific Core - Total	Caribbean, Emissions Core	Caribbean, Cameras Core	Caribbean, Shoreline Core	Caribbean, Total	Lightning Emissions Core	Lightning Cameras Core	Lightning Shoreline Core	Lightning, Total
N/A	N/A	N/A	N/A	N/A	N/A	N/A	Marine Range SN-0125: MRS Not-unknown, not-provided	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Subsi+BM1:DN123ence Structure Loss	Subsidence Contents Loss	Subsidence Function Loss	Subsidence Loss Total	Temperature Extreme Structure Loss	Temperature Extreme Contents Loss	Temperature Extreme Function Loss	Temperature Extreme Total	Terrorist Structure Loss	Terrorist Contents Loss	Terrorist Function Loss	Terrorist Total	Thunderstorm Structure Loss	Thunderstorm Contents Loss	Thunderstorm Function Loss	Thunderstorm Loss Total	Thunderstorm Loss Other	Thunderstorm Methodology	Urban Fire Structure Loss	Urban Fire Contents Loss	Urban Fire Function Loss	Urban Fire Total	Wildfire Structure Loss	Wildfire Contents Loss	Wildfire Function Loss	Wildfire Other	Wildfire Total	Wind Structure Loss	Wind Contents Loss	Wind Function Loss	Wind Loss, Other	Wind Loss Total	Winter Storm Structure Loss	Winter Storm Contents Loss	Winter Storm Function Loss	Winter Storm Loss (Other)	Winter Storm Total	Winter Storm Method	Tornado Structure Loss	Tornado Contents Loss	Tornado Function Loss	Tornado Loss Total	Arson Structure Loss	Arson Contents Loss	Arson Function Loss	Arson Loss Total	Groundwater Contamination Structure Loss	Groundwater Contamination Contents Loss	Groundwater Contamination Function Loss	Groundwater Contamination Loss Total
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				Refers to State Plan for t-storm loss estimate. Town hires tree services to do major t-storm clean-up for about $900/day.			N/A	N/A	N/A	N/A	Overall cost to property damage due to wildfires is believed to be minimal since vacant lands are typically affected.				Town spends less than $1,000 per year to fight wildfires, most of the cost attributed to food, equipment and provisions for the volunteer firefighters					Covered in t-storms and winter storms				January 2011, Columbia received public assistance reimbursement of $13,503.56 related to heavy snow; Winter Storm Alfred in Oct 2011 $2,422.26	No HAZUS-MH estimates for Town; refers to State HMPlan					Discussed in t-storms. No estimates provided (only includes 2014 State Plan estimates for whole county)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				Refers to State Plan for t-storm loss estimate. Town has not incurred additional costs for severe thunderstorms that are not met within the regular operating budget. Private losses are not typically reported to the Town, but are expected to be incurred by property owners on some scale during severe thunderstorm events.			N/A	N/A	N/A	N/A					Town staff report that wildfires are a minimal problem in Coventry and do not require additional expenditures outside of normal operating budgets. It is estimated that the annualized loss due to wildfires in Coventry is less than $500 per year.					Covered in t-storms and winter storms	January and February 2011, Coventry received public assistance reimbursement of $35,956.17 related to heavy snow for the major damage to the roof of the equine riding center (building needed to be demolished and rebuilt).			Public assistance reimbursement to Coverntry for Winter Storm Alfred in Oct 2011 was $38,417.18; winter storm Nemo in Feb 2013 was $74,316.05.	No HAZUS-MH estimates for Town; refers to State HMPlan				EF-1 Tornado in July 2013 damaged one privately-owned building roof uprooting, along with several trees; clean-up by the Town was covered within the regular budget. Plan states that these damages are consistent with the 2014 CT State HMPlan Loss Estimate of $3,614	No town-specific estimates provided (only includes 2014 State Plan estimates for whole county).	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A			Based on the 2010 Census data, Mansfield has approximately 17.4% of the population of Tolland County. Based on this percentage, the annualized loss in the Town of Mansfield for thunderstorm damage is estimated at $9,662. (*Uses County-Wide Data provided by CT State 2014 HMP)	Refers to State Plan for t-storm loss estimate.			N/A	N/A	N/A	N/A	In 2013, a total of 16 wildfires occurred which burned approximately five acres. In 2012, a total of 17 wildfires occurred which burned approximately six acres. In 2011, a total of six wildfires occurred which burned approximately eight acres.	Town staff report that wildfires cost the Mansfield Fire Department approximately $2,000 per acre affected in terms of personnel, apparatus, and equipment. Based on this assessment, the annualized loss over the last three years due to wildfires in Mansfield has been approximately $13,000	Based on the 2010 Census data, Mansfield has approximately 17.4% of the population of Tolland County. Based on this percentage, the number of annualized events in the Town of Mansfield is estimated to be 3.1, which would be equivalent to an average of 4.74 acres burnt per year. Assuming a total cost of $2,000 per acre affected as discussed above, the estimated annualized loss based on long-term wildfire statistics is estimated at $9,480. (*Uses County-Wide Data provided by CT State 2014 HMP)		(*Uses County-Wide Data provided by CT State 2014 HMP)					Covered in t-storms and winter storms		The public assistance reimbursement following Winter Storm "Alfred" in late October 2011 was $66,100.96. The public assistance reimbursement for Winter Storm "Nemo" in February 2013 was $50,321.48	The Town of Mansfield received a public assistance reimbursement of $31,221.93 related to the heavy snow in January and February 2011.	Based on the 2010 Census data, Mansfield has approximately 17.4% of the population of Tolland County. Based on this percentage, the annualized loss in the Town of Mansfield for severe winter storm damage is estimated at $92,503. (*Uses County-Wide Data provided by CT State 2014 HMP)	No HAZUS-MH estimates for Town; refers to State HMPlan		The Town of Mansfield reports that the cost to respond to the July 10, 2013 EF-1 tornado cost $11,900		Based on the 2010 Census data, Mansfield has approximately 17.4% of the population of Tolland County. Based on this percentage, the annualized loss in the Town of Mansfield for tornado damage is estimated at $7,713. (*Uses County-Wide Data provided by CT State 2014 HMP)	No HAZUS-MH estimates for Town; refers to State HMPlan	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A			Based on the 2010 Census data, Willington has approximately 4.0% of the population of Tolland County. Based on this percentage, the annualized loss in the Town of Willington for thunderstorm damage is estimated at $2,199. (*Uses County-Wide Data provided by CT State 2014 HMP)	Refers to State Plan for t-storm loss estimate.			N/A	N/A	N/A	N/A					The Town of Willington did not report any recent losses due to wildfires. It is estimated that the annualized loss due to wildfires in Willington is less than $500 per year.					Covered in t-storms and winter storms				Based on the 2010 Census data, Willington has approximately 4.0% of the population of Tolland County. Based on this percentage, the annualized loss in the Town of Willington for severe winter storm damage is estimated at $21,053. (*Uses County-Wide Data provided by CT State 2014 HMP)	No HAZUS-MH estimates for Town; refers to State HMPlan				Based on the 2010 Census data in Section II.A., Willington has approximately 4.0% of the population of Tolland County. Based on this percentage, the annualized loss in the Town of Willington for tornado damage is estimated at $1,755. (*Uses County-Wide Data provided by CT State 2014 HMP)	No HAZUS-MH estimates for Town; refers to State HMPlan	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	SHELDUS data - NECCOG Region: June 10, 2010 severe storm / thunder storm: $15,600 in property damage	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)			N/A	N/A	N/A	N/A	N/A	N/A	N/A		Mentioned as rare in the Region due to forest type and climate; therefore, not discussed as a risk.	N/A	N/A	N/A	N/A	Discussed in 2015 NECCOG HMP as part of Hurricane	N/A	N/A	N/A	SHELDUS data - NECCOG Region: March 5, 2001 winter weather: $2,139,918 in property damage	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)		N/A	N/A	In June 2011, a tornado touched down just north of the region causing property damage of $200 million.	NCDC.NOAA data (in Appendix 9) indicates 3 instances of tornadoes in Windham County between 1985-1992 with property damage costs up to $2.500M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	SHELDUS data - NECCOG Region: June 10, 2010 severe storm / thunder storm: $15,600 in property damage	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)			N/A	N/A	N/A	N/A	N/A	N/A	N/A		Mentioned as rare in the Region due to forest type and climate; therefore, not discussed as a risk.	N/A	N/A	N/A	N/A	Discussed in 2015 NECCOG HMP as part of Hurricane	N/A	N/A	N/A	SHELDUS data - NECCOG Region: March 5, 2001 winter weather: $2,139,918 in property damage	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)		N/A	N/A	In June 2011, a tornado touched down just north of the region causing property damage of $200 million.	NCDC.NOAA data (in Appendix 9) indicates 3 instances of tornadoes in Windham County between 1985-1992 with property damage costs up to $2.500M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	SHELDUS data - NECCOG Region: June 10, 2010 severe storm / thunder storm: $15,600 in property damage	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)			N/A	N/A	N/A	N/A	N/A	N/A	N/A		Mentioned as rare in the Region due to forest type and climate; therefore, not discussed as a risk.	N/A	N/A	N/A	N/A	Discussed in 2015 NECCOG HMP as part of Hurricane	N/A	N/A	N/A	SHELDUS data - NECCOG Region: March 5, 2001 winter weather: $2,139,918 in property damage	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)		N/A	N/A	In June 2011, a tornado touched down just north of the region causing property damage of $200 million.	NCDC.NOAA data (in Appendix 9) indicates 3 instances of tornadoes in Windham County between 1985-1992 with property damage costs up to $2.500M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)			N/A	N/A	N/A	N/A	N/A	N/A	N/A		Mentioned as rare in the Region due to forest type and climate; therefore, not discussed as a risk.	N/A	N/A	N/A	N/A	Discussed in 2015 NECCOG HMP as part of Hurricane	N/A	N/A	N/A	N/A	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)		N/A	N/A	N/A	NCDC.NOAA data (in Appendix 9) indicates 3 instances of tornadoes in Windham County between 1985-1992 with property damage costs up to $2.500M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	SHELDUS data - NECCOG Region: June 10, 2010 severe storm / thunder storm: $15,600 in property damage	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)			N/A	N/A	N/A	N/A	N/A	N/A	N/A		Mentioned as rare in the Region due to forest type and climate; therefore, not discussed as a risk.	N/A	N/A	N/A	N/A	Discussed in 2015 NECCOG HMP as part of Hurricane	N/A	N/A	N/A	SHELDUS data - NECCOG Region: March 5, 2001 winter weather: $2,139,918 in property damage	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)		N/A	N/A	In June 2011, a tornado touched down just north of the region causing property damage of $200 million.	NCDC.NOAA data (in Appendix 9) indicates 3 instances of tornadoes in Windham County between 1985-1992 with property damage costs up to $2.500M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)			N/A	N/A	N/A	N/A	N/A	N/A	N/A		Mentioned as rare in the Region due to forest type and climate; therefore, not discussed as a risk.	N/A	N/A	N/A	N/A	Discussed in 2015 NECCOG HMP as part of Hurricane	N/A	N/A	N/A	N/A	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)		N/A	N/A	N/A	NCDC.NOAA data (in Appendix 9) indicates 3 instances of tornadoes in Windham County between 1985-1992 with property damage costs up to $2.500M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	SHELDUS data - NECCOG Region: June 10, 2010 severe storm / thunder storm: $15,600 in property damage	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)			N/A	N/A	N/A	N/A	N/A	N/A	N/A		Mentioned as rare in the Region due to forest type and climate; therefore, not discussed as a risk.	N/A	N/A	N/A	N/A	Discussed in 2015 NECCOG HMP as part of Hurricane	N/A	N/A	N/A	SHELDUS data - NECCOG Region: March 5, 2001 winter weather: $2,139,918 in property damage	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)		N/A	N/A	In June 2011, a tornado touched down just north of the region causing property damage of $200 million.	NCDC.NOAA data (in Appendix 9) indicates 3 instances of tornadoes in Windham County between 1985-1992 with property damage costs up to $2.500M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	SHELDUS data - NECCOG Region: June 10, 2010 severe storm / thunder storm: $15,600 in property damage	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)			N/A	N/A	N/A	N/A	N/A	N/A	N/A		Mentioned as rare in the Region due to forest type and climate; therefore, not discussed as a risk.	N/A	N/A	N/A	N/A	Discussed in 2015 NECCOG HMP as part of Hurricane	N/A	N/A	N/A	SHELDUS data - NECCOG Region: March 5, 2001 winter weather: $2,139,918 in property damage	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)		N/A	N/A	In June 2011, a tornado touched down just north of the region causing property damage of $200 million.	NCDC.NOAA data (in Appendix 9) indicates 3 instances of tornadoes in Windham County between 1985-1992 with property damage costs up to $2.500M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	SHELDUS data - NECCOG Region: June 10, 2010 severe storm / thunder storm: $15,600 in property damage	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)			N/A	N/A	N/A	N/A	N/A	N/A	N/A		Mentioned as rare in the Region due to forest type and climate; therefore, not discussed as a risk.	N/A	N/A	N/A	N/A	Discussed in 2015 NECCOG HMP as part of Hurricane	N/A	N/A	N/A	SHELDUS data - NECCOG Region: March 5, 2001 winter weather: $2,139,918 in property damage	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)		N/A	N/A	In June 2011, a tornado touched down just north of the region causing property damage of $200 million.	NCDC.NOAA data (in Appendix 9) indicates 3 instances of tornadoes in Windham County between 1985-1992 with property damage costs up to $2.500M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	SHELDUS data - NECCOG Region: June 10, 2010 severe storm / thunder storm: $15,600 in property damage	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)			N/A	N/A	N/A	N/A	N/A	N/A	N/A		Mentioned as rare in the Region due to forest type and climate; therefore, not discussed as a risk.	N/A	N/A	N/A	N/A	Discussed in 2015 NECCOG HMP as part of Hurricane	N/A	N/A	N/A	SHELDUS data - NECCOG Region: March 5, 2001 winter weather: $2,139,918 in property damage	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)		N/A	N/A	In June 2011, a tornado touched down just north of the region causing property damage of $200 million.	NCDC.NOAA data (in Appendix 9) indicates 3 instances of tornadoes in Windham County between 1985-1992 with property damage costs up to $2.500M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)			N/A	N/A	N/A	N/A	N/A	N/A	N/A		Mentioned as rare in the Region due to forest type and climate; therefore, not discussed as a risk.	N/A	N/A	N/A	N/A	Discussed in 2015 NECCOG HMP as part of Hurricane	N/A	N/A	N/A	N/A	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)		N/A	N/A	N/A	NCDC.NOAA data (in Appendix 9) indicates 3 instances of tornadoes in Windham County between 1985-1992 with property damage costs up to $2.500M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	SHELDUS data - NECCOG Region: June 10, 2010 severe storm / thunder storm: $15,600 in property damage	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)			N/A	N/A	N/A	N/A	N/A	N/A	N/A		Mentioned as rare in the Region due to forest type and climate; therefore, not discussed as a risk.	N/A	N/A	N/A	N/A	Discussed in 2015 NECCOG HMP as part of Hurricane	N/A	N/A	N/A	SHELDUS data - NECCOG Region: March 5, 2001 winter weather: $2,139,918 in property damage	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)		N/A	N/A	In June 2011, a tornado touched down just north of the region causing property damage of $200 million.	NCDC.NOAA data (in Appendix 9) indicates 3 instances of tornadoes in Windham County between 1985-1992 with property damage costs up to $2.500M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	SHELDUS data - NECCOG Region: June 10, 2010 severe storm / thunder storm: $15,600 in property damage	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)			N/A	N/A	N/A	N/A	N/A	N/A	N/A		Mentioned as rare in the Region due to forest type and climate; therefore, not discussed as a risk.	N/A	N/A	N/A	N/A	Discussed in 2015 NECCOG HMP as part of Hurricane	N/A	N/A	N/A	SHELDUS data - NECCOG Region: March 5, 2001 winter weather: $2,139,918 in property damage	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)		N/A	N/A	In June 2011, a tornado touched down just north of the region causing property damage of $200 million.	NCDC.NOAA data (in Appendix 9) indicates 3 instances of tornadoes in Windham County between 1985-1992 with property damage costs up to $2.500M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)			N/A	N/A	N/A	N/A	N/A	N/A	N/A		Mentioned as rare in the Region due to forest type and climate; therefore, not discussed as a risk.	N/A	N/A	N/A	N/A	Discussed in 2015 NECCOG HMP as part of Hurricane	N/A	N/A	N/A	N/A	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)		N/A	N/A	N/A	NCDC.NOAA data (in Appendix 9) indicates 8 instances of tornadoes in Tolland County between 1951-1973 with property damage costs up to $250.00K	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)			N/A	N/A	N/A	N/A	N/A	N/A	N/A		Mentioned as rare in the Region due to forest type and climate; therefore, not discussed as a risk.	N/A	N/A	N/A	N/A	Discussed in 2015 NECCOG HMP as part of Hurricane	N/A	N/A	N/A	N/A	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)		N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	SHELDUS data - NECCOG Region: June 10, 2010 severe storm / thunder storm: $15,600 in property damage	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)			N/A	N/A	N/A	N/A	N/A	N/A	N/A		Mentioned as rare in the Region due to forest type and climate; therefore, not discussed as a risk.	N/A	N/A	N/A	N/A	Discussed in 2015 NECCOG HMP as part of Hurricane	N/A	N/A	N/A	SHELDUS data - NECCOG Region: March 5, 2001 winter weather: $2,139,918 in property damage	SHELDUS data provided in Appendix 9 indicates SEVERAL instances of damage costs, ranging from $0.00K to $20.000M. These listings include multiple damage hazards such as wind, lightning, hail, heavy snow, winter weatherblizzard, tropical storm, ice storm, and are all county-wide (Windham and Tolland)		N/A	N/A	In June 2011, a tornado touched down just north of the region causing property damage of $200 million.	NCDC.NOAA data (in Appendix 9) indicates 3 instances of tornadoes in Windham County between 1985-1992 with property damage costs up to $2.500M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Max. Energieinhalte Ausdauer Frauen Exc.	Max. Energieinhalte Ausdauer Männer Exc.	Max. Energieinhalte Ausdauer Frauen Exc.	Max. Energieinhalte Ausdauer Exc. Total	Hanse Energy Consumers Exc.	Hanse Energy Campers Exc.	Hanse Energy Travellers Exc.	Hanse Energy Exc. Total	Hanse Energy Exc.	Hanse Energy Exc.	Hanse Energy Exc.	Hanse Energy Exc.	Hanse Reflective Consumers Exc.	Hanse Reflective Campers Exc.	Hanse Reflective Travellers Exc.	Hanse Reflective Exc. Total	Hanse Reflective Exc.	Hanse Reflective Exc.	Hanse Reflective Exc.	Hanse Reflective Exc.	Lightning Exc.	Lightning Exc.	Lightning Exc.	Lightning Exc.
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2018-03-13 event time=1 Hanse Exc. Reflective Campers Exc. Hanse Exc. Reflective Travellers Exc. Hanse Exc. Reflective Exc. Total Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Lightning Exc. Lightning Exc. Lightning Exc. Lightning Exc.	Committee period Hanse-cup
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2018-03-13 event time=1 Hanse Exc. Reflective Campers Exc. Hanse Exc. Reflective Travellers Exc. Hanse Exc. Reflective Exc. Total Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Lightning Exc. Lightning Exc. Lightning Exc. Lightning Exc.	Committee period Hanse-cup
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2018-03-13 event time=1 Hanse Exc. Reflective Campers Exc. Hanse Exc. Reflective Travellers Exc. Hanse Exc. Reflective Exc. Total Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Lightning Exc. Lightning Exc. Lightning Exc. Lightning Exc.	Committee period Hanse-cup
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Committee period Hanse-cup
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2018-03-13 event time=1 Hanse Exc. Reflective Campers Exc. Hanse Exc. Reflective Travellers Exc. Hanse Exc. Reflective Exc. Total Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Lightning Exc. Lightning Exc. Lightning Exc. Lightning Exc.	Committee period Hanse-cup
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Committee period Hanse-cup
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2018-03-13 event time=1 Hanse Exc. Reflective Campers Exc. Hanse Exc. Reflective Travellers Exc. Hanse Exc. Reflective Exc. Total Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Lightning Exc. Lightning Exc. Lightning Exc. Lightning Exc.	Committee period Hanse-cup
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2018-03-13 event time=1 Hanse Exc. Reflective Campers Exc. Hanse Exc. Reflective Travellers Exc. Hanse Exc. Reflective Exc. Total Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Lightning Exc. Lightning Exc. Lightning Exc. Lightning Exc.	Committee period Hanse-cup
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2018-03-13 event time=1 Hanse Exc. Reflective Campers Exc. Hanse Exc. Reflective Travellers Exc. Hanse Exc. Reflective Exc. Total Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Lightning Exc. Lightning Exc. Lightning Exc. Lightning Exc.	Committee period Hanse-cup
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2018-03-13 event time=1 Hanse Exc. Reflective Campers Exc. Hanse Exc. Reflective Travellers Exc. Hanse Exc. Reflective Exc. Total Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Lightning Exc. Lightning Exc. Lightning Exc. Lightning Exc.	Committee period Hanse-cup
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2018-03-13 event time=1 Hanse Exc. Reflective Campers Exc. Hanse Exc. Reflective Travellers Exc. Hanse Exc. Reflective Exc. Total Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Lightning Exc. Lightning Exc. Lightning Exc. Lightning Exc.	Committee period Hanse-cup
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2018-03-13 event time=1 Hanse Exc. Reflective Campers Exc. Hanse Exc. Reflective Travellers Exc. Hanse Exc. Reflective Exc. Total Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Lightning Exc. Lightning Exc. Lightning Exc. Lightning Exc.	Committee period Hanse-cup
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2018-03-13 event time=1 Hanse Exc. Reflective Campers Exc. Hanse Exc. Reflective Travellers Exc. Hanse Exc. Reflective Exc. Total Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Lightning Exc. Lightning Exc. Lightning Exc. Lightning Exc.	Committee period Hanse-cup
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2018-03-13 event time=1 Hanse Exc. Reflective Campers Exc. Hanse Exc. Reflective Travellers Exc. Hanse Exc. Reflective Exc. Total Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Lightning Exc. Lightning Exc. Lightning Exc. Lightning Exc.	Committee period Hanse-cup
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2018-03-13 event time=1 Hanse Exc. Reflective Campers Exc. Hanse Exc. Reflective Travellers Exc. Hanse Exc. Reflective Exc. Total Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Lightning Exc. Lightning Exc. Lightning Exc. Lightning Exc.	Committee period Hanse-cup
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2018-03-13 event time=1 Hanse Exc. Reflective Campers Exc. Hanse Exc. Reflective Travellers Exc. Hanse Exc. Reflective Exc. Total Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Lightning Exc. Lightning Exc. Lightning Exc. Lightning Exc.	Committee period Hanse-cup
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2018-03-13 event time=1 Hanse Exc. Reflective Campers Exc. Hanse Exc. Reflective Travellers Exc. Hanse Exc. Reflective Exc. Total Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Lightning Exc. Lightning Exc. Lightning Exc. Lightning Exc.	Committee period Hanse-cup
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2018-03-13 event time=1 Hanse Exc. Reflective Campers Exc. Hanse Exc. Reflective Travellers Exc. Hanse Exc. Reflective Exc. Total Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Lightning Exc. Lightning Exc. Lightning Exc. Lightning Exc.	Committee period Hanse-cup
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2018-03-13 event time=1 Hanse Exc. Reflective Campers Exc. Hanse Exc. Reflective Travellers Exc. Hanse Exc. Reflective Exc. Total Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Lightning Exc. Lightning Exc. Lightning Exc. Lightning Exc.	Committee period Hanse-cup
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2018-03-13 event time=1 Hanse Exc. Reflective Campers Exc. Hanse Exc. Reflective Travellers Exc. Hanse Exc. Reflective Exc. Total Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Lightning Exc. Lightning Exc. Lightning Exc. Lightning Exc.	Committee period Hanse-cup
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2018-03-13 event time=1 Hanse Exc. Reflective Campers Exc. Hanse Exc. Reflective Travellers Exc. Hanse Exc. Reflective Exc. Total Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Lightning Exc. Lightning Exc. Lightning Exc. Lightning Exc.	Committee period Hanse-cup
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2018-03-13 event time=1 Hanse Exc. Reflective Campers Exc. Hanse Exc. Reflective Travellers Exc. Hanse Exc. Reflective Exc. Total Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Lightning Exc. Lightning Exc. Lightning Exc. Lightning Exc.	Committee period Hanse-cup
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2018-03-13 event time=1 Hanse Exc. Reflective Campers Exc. Hanse Exc. Reflective Travellers Exc. Hanse Exc. Reflective Exc. Total Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Lightning Exc. Lightning Exc. Lightning Exc. Lightning Exc.	Committee period Hanse-cup
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2018-03-13 event time=1 Hanse Exc. Reflective Campers Exc. Hanse Exc. Reflective Travellers Exc. Hanse Exc. Reflective Exc. Total Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Lightning Exc. Lightning Exc. Lightning Exc. Lightning Exc.	Committee period Hanse-cup
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2018-03-13 event time=1 Hanse Exc. Reflective Campers Exc. Hanse Exc. Reflective Travellers Exc. Hanse Exc. Reflective Exc. Total Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Lightning Exc. Lightning Exc. Lightning Exc. Lightning Exc.	Committee period Hanse-cup
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2018-03-13 event time=1 Hanse Exc. Reflective Campers Exc. Hanse Exc. Reflective Travellers Exc. Hanse Exc. Reflective Exc. Total Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Lightning Exc. Lightning Exc. Lightning Exc. Lightning Exc.	Committee period Hanse-cup
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2018-03-13 event time=1 Hanse Exc. Reflective Campers Exc. Hanse Exc. Reflective Travellers Exc. Hanse Exc. Reflective Exc. Total Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Lightning Exc. Lightning Exc. Lightning Exc. Lightning Exc.	Committee period Hanse-cup
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2018-03-13 event time=1 Hanse Exc. Reflective Campers Exc. Hanse Exc. Reflective Travellers Exc. Hanse Exc. Reflective Exc. Total Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Lightning Exc. Lightning Exc. Lightning Exc. Lightning Exc.	Committee period Hanse-cup
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2018-03-13 event time=1 Hanse Exc. Reflective Campers Exc. Hanse Exc. Reflective Travellers Exc. Hanse Exc. Reflective Exc. Total Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Lightning Exc. Lightning Exc. Lightning Exc. Lightning Exc.	Committee period Hanse-cup
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2018-03-13 event time=1 Hanse Exc. Reflective Campers Exc. Hanse Exc. Reflective Travellers Exc. Hanse Exc. Reflective Exc. Total Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Lightning Exc. Lightning Exc. Lightning Exc. Lightning Exc.	Committee period Hanse-cup
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2018-03-13 event time=1 Hanse Exc. Reflective Campers Exc. Hanse Exc. Reflective Travellers Exc. Hanse Exc. Reflective Exc. Total Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Hanse Exc. Reflective Exc. Lightning Exc. Lightning Exc. Lightning Exc. Lightning Exc.	Committee period Hanse-cup

Critical Facility Data

Indicate the types of critical facilities included in their loss estimates.

County	RPO	Community or Tribe	Loss Estimates provided by hazard. If so, use additional columns to document loss/risk and methodology used.	Unit of Column B (Buildings/$)	Source(s)	Types of Critical Facilities included in Analysis												Methodology for how calculated…HAZUS,… Census Blk intersection w FP…)
						Fire Stations	Schools	Hospitals/ Nursing homes	Police	Government Facilities	Transportation Infrastructure	Utilities	Emergency Services	Commercial and Industrial	Post Office	Library	Historic	Other	
Fairfield	MetroCOG	Bridgeport	N/A	N/A	Appendix E: Critical Facilities Damaged (HAZUS-MH estimates)	7	57 Schools	3 Hospitals	6	3 Courts; 14 State Agencies	2 railroad stations; Bus station	Tank Farms; 4 Utilities	41 Shelters; Troop G State Police Barracks is EOP (also serves as back-up facility for the State EOC. Can handle regional emergency response as necessary	N/A	6	N/A	N/A	3 Education Centers; 7 Home Care Agencies; 60 Day Care Facilities; 32 Out-Patient Clinics; 25 Mental Health Facilities; 14 Substance Abuse Facilities; 9 other Health Care Resources; 8 Federal Agencies; 4 Recreational Facilities	town list of critical facilities, text from GBRC-NHMP Update, 2014
Fairfield	MetroCOG	Easton	N/A	N/A	Appendix E: Critical Facilities Damaged (HAZUS-MH estimates)	1	2 Schools	1 Hospital	1	1 Public Works; 1 Town Hall	N/A	N/A	2 Shelters	N/A	N/A	N/A	N/A	4 Child Care Facilities	town list of critical facilities, text from GBRC-NHMP Update, 2014
Fairfield	MetroCOG	Fairfield	N/A	N/A	Appendix E: Critical Facilities Damaged (HAZUS-MH estimates)	1	31 Schools	7 Nursing Homes	3	1 Public Works; 1 Town Garage; 1 Water Pollution Control; 1 Senior Citizen's Center; 1 Town Hall; 1 U.S. Army Reserve	3 railroad stations; Bus station	Pump Stations; 3 Utilities	11 Shelters	N/A	N/A	N/A	N/A	N/A	town list of critical facilities, text from GBRC-NHMP Update, 2014
Fairfield	MetroCOG	Monroe	N/A	N/A	Appendix E: Critical Facilities Damaged (HAZUS-MH estimates)	2	12 Educational / Child Care Facilities	N/A	1	1 Public Works	Bus station	N/A	1 Shelter	N/A	N/A	N/A	N/A	N/A	town list of critical facilities, text from GBRC-NHMP Update, 2014
Fairfield	MetroCOG	Stratford	N/A	N/A	Appendix E: Critical Facilities Damaged (HAZUS-MH estimates)	2	14 Schools	N/A	3	N/A	1 railroad station; Bus station	N/A	7 Shelters	N/A	N/A	N/A	N/A	[this text from previous HMP (before 2014 HMP)] Institutional and recreational uses such as schools, beaches, parks, and other public properties are located within the flood plain. Two of the town's emergency shelters are within the 100-YR floodplain	town list of critical facilities, text from GBRC-NHMP Update, 2014
Fairfield	MetroCOG	Trumbull	N/A	N/A	Appendix E: Critical Facilities Damaged (HAZUS-MH estimates)	3	17 Educational Facilities	N/A	2	1 Public Works; 1 Town Hall	Bus station	N/A	3 Shelters	N/A	N/A	N/A	N/A	6 Child Care Facilities	town list of critical facilities, text from GBRC-NHMP Update, 2014
Fairfield	WestCOG	Bethel	N/A	N/A	N/A	2	6	1 Convelescent Home; 3 Elderly Housing Units	1 (existing facility is prone to flooding)	Municipal Center, Public Works Garage	N/A	Radio Tower; 4 Public Water Sites; various water & sewer pump stations. Municipal and Aquarion water supply	Municipal Building (primary shelter)	N/A	N/A	N/A	N/A	N/A	Local input table, page 2-15 of 2015 HMP
Litchfield	WestCOG	Bridgewater	N/A	N/A	N/A	1	1	1 Senior Centre	1	Town Hall; Public Works; Highway Garage	N/A	Mobil Gas Station (provides emergency response fuel)	Senior Center is EOC and Primary Shelter	The Village Store	N/A	N/A	N/A	N/A	Local input table, page 2-13 of 2015 HMP
Fairfield	WestCOG	Brookfield	N/A	N/A	N/A	2	2 Schools; 10 Day Care Facilities	1 Senior Center; 1 Ambulance Facility; 1 elderly housing facility; 1 assisted living facility	1	Town Hall; Public Works Garage	N/A	Various water & sewer pump stations, water tank	Brookfield High School is EOC and Primary Shelter	Brookfield YMCA	N/A	N/A	Brookfield Center is in the National Register of Historic Places	18 Condominium Complexes/Apartments	Local input table, pages 2-16/17 of 2014 HMP
Fairfield	WestCOG	Danbury	Yes	Buildings	HAZUS-MH	18	29	9	2 Police Headquarters (Emergency Dispatch) & seasonal Candlewood Lake	City Hall, Public Works	14 facilities including airport, I-84, Route 7, etc., Regional Transit hub	Electrical Substations, Water and Sewer Service	War Memorial (Primary Shelter) EOC (City Hall)	33 Hazardous Materials Reporting Facilities, Danbury Fair Mall	Yes	Yes	12	41 places of worship	HAZUS for critical facilities losses, other facilities listed in text
Fairfield	WestCOG	New Fairfield	Yes	Buildings	HAZUS-MH	3	2 (HAZUS: 5)	0	1	Town Hall, Annex	Rt 37, Rt 39, Rt 55	N/A	1 shelters (H.S.& M.S., Senior Center, New Life Church) EOC: Public Safety Complex	N/A	N/A	N/A	N/A	N/A	HAZUS for critical facilities losses, other facilities listed in text
Litchfield	WestCOG	New Milford	Yes	Buildings	HAZUS-MH	4 (HAZUS: 2)	1 (HAZUS: 7)	1 Hospital (HAZUS)	1	Town Hall, P.W. Garage	N/A	Water Pollution Control Facility	N.M. Community Ambulance EOC (Ambulance Facility) 3 shelters (Senior Center, N.M. Youth Agency, Sarah Noble School)	N/A	N/A	N/A	The Bleachery		HAZUS for critical facilities losses, other facilities listed in text
Fairfield	WestCOG	Newtown	Yes	Buildings	HAZUS-MH	5	10	1 Ambulance Facility	1	Municipal Center / EOC	HARTransit	Sewage Facility/WWTP Electrical Substations Wellheads & public water system	EOC (Municipal Center) 3 Shelters (EOC, N. Mid Schl, N.H.S.) Ambulance Facility Backup EOC (Sandy Hook Fire)						HAZUS for critical facilities losses, other facilities listed in text
Fairfield	WestCOG	Redding	Yes	Buildings	HAZUS-MH	4 (HAZUS: 2)	2 (HAZUS: 4)	0	1	Redding Community Center Town Hall Redding Highway Garage		Sewage Facility/WWTP	EOC (Police Department) Community Center (commodities & comfort center) Shelters (Joe Barlow H.S.; John Read M.S.)					Cell Towers	HAZUS for critical facilities losses, other facilities listed in text
Fairfield	WestCOG	Ridgefield	Yes	Buildings	HAZUS-MH	2 (HAZUS:1)	(HAZUS: 11)	3	1	Town Hall, Town Hall Annex Highway Garage	Railroad Station Major Arteries	2 WWTP Pumping Stations	EOC (Yanity Gymnasium) 3 Shelters (Ridgefield Rec Center, Barlow Mt School, East Ridge M.S) 1 Regional Shelter (Yanity) Emergency Distribution Center (Scotts Ridge M.S.)	Boehringer Campus, Commercial Town Center			Town Center Historic District, Reverend Thomas Hawley House, Nathan Scott House, E.P. Dutton House, Benedict House	Water pumping stations	HAZUS for critical facilities losses, other facilities listed in text
Fairfield	WestCOG	Sherman	Yes	Buildings	HAZUS-MH	1 (Hwy Dept Garage)	1	None in HAZUS	1 (State trooper)	Highway Department Garage, Town Hall	Rt 37, Rt 39		Emergency Services Facilty 2 ARC shelters (ESF, Consolidated School)					Community Centers/Shelters/Distribution Centers (Renaissance Senior Center, Holy Trinity Church, Congregational Church, Jewish Community Center)	HAZUS for critical facilities losses, other facilities listed in text
Fairfield	SWestCOG	Darien	Yes (data is same as previously entered for 2014 State HMP). No specific critical facility data is provided within the current regional HMP	N/A	HAZUS-MH Database, no smuplete table provided (see column D)	15 for the region	135 for the region	4 Hospitals; Numerous Public and Private Medical Facilities	9 for the region	N/A	Region-wide: 19 Rail Stations; I-95; Northeast Rail Corridor	7 Waste Water Treatment Facilities; 3 Electric Power Facilities; Communication Towers (for the region)	4 Emergency Operations Centers (for the region)	N/A	N/A	N/A	N/A	Entire region: a total of fourteen critical facilities were found within a flood hazard area, of which two were in Greenwich, six in Norwalk, and six in Stamford.	HAZUS, local input
Fairfield	SWestCOG	Greenwich	Yes (data is same as previously entered for 2014 State HMP). No specific critical facility data is provided within the current regional HMP	N/A	HAZUS-MH Database, no smuplete table provided	15 for the region	135 for the region	4 Hospitals; Numerous Public and Private Medical Facilities	9 for the region	N/A	Region-wide: 19 Rail Stations; I-95; Northeast Rail Corridor	7 Waste Water Treatment Facilities; 3 Electric Power Facilities; Communication Towers (for the region)	4 Emergency Operations Centers (for the region)	N/A	N/A	N/A	N/A	Entire region: a total of fourteen critical facilities were found within a flood hazard area, of which two were in Greenwich, six in Norwalk, and six in Stamford.	HAZUS, local input
Fairfield	SWestCOG	New Canaan	Yes (data is same as previously entered for 2014 State HMP). No specific critical facility data is provided within the current regional HMP	N/A	HAZUS-MH Database, no smuplete table provided	15 for the region	135 for the region	4 Hospitals; Numerous Public and Private Medical Facilities	9 for the region	N/A	Region-wide: 19 Rail Stations; I-95; Northeast Rail Corridor	7 Waste Water Treatment Facilities; 3 Electric Power Facilities; Communication Towers (for the region)	4 Emergency Operations Centers (for the region)	N/A	N/A	N/A	N/A	Entire region: a total of fourteen critical facilities were found within a flood hazard area, of which two were in Greenwich, six in Norwalk, and six in Stamford.	HAZUS, local input
Fairfield	SWestCOG	Norwalk	Yes (data is same as previously entered for 2014 State HMP). No specific critical facility data is provided within the current regional HMP	N/A	HAZUS-MH Database, no smuplete table provided	15 for the region	135 for the region	4 Hospitals; Numerous Public and Private Medical Facilities	9 for the region	N/A	Region-wide: 19 Rail Stations; I-95; Northeast Rail Corridor	7 Waste Water Treatment Facilities; 3 Electric Power Facilities; Communication Towers (for the region)	4 Emergency Operations Centers (for the region)	N/A	N/A	N/A	N/A	Entire region: a total of fourteen critical facilities were found within a flood hazard area, of which two were in Greenwich, six in Norwalk, and six in Stamford.	HAZUS, local input
Fairfield	SWestCOG	Stamford	Yes (data is same as previously entered for 2014 State HMP). No specific critical facility data is provided within the current regional HMP	N/A	HAZUS-MH Database, no smuplete table provided	15 for the region	135 for the region	4 Hospitals; Numerous Public and Private Medical Facilities	9 for the region	N/A	Region-wide: 19 Rail Stations; I-95; Northeast Rail Corridor	7 Waste Water Treatment Facilities; 3 Electric Power Facilities; Communication Towers (for the region)	4 Emergency Operations Centers (for the region)	N/A	N/A	N/A	N/A	Entire region: a total of fourteen critical facilities were found within a flood hazard area, of which two were in Greenwich, six in Norwalk, and six in Stamford.	HAZUS, local input
Fairfield	SWestCOG	Weston	Yes (data is same as previously entered for 2014 State HMP). No specific critical facility data is provided within the current regional HMP	N/A	HAZUS-MH Database, no smuplete table provided	15 for the region	135 for the region	4 Hospitals; Numerous Public and Private Medical Facilities	9 for the region	N/A	Region-wide: 19 Rail Stations; I-95; Northeast Rail Corridor	7 Waste Water Treatment Facilities; 3 Electric Power Facilities; Communication Towers (for the region)	4 Emergency Operations Centers (for the region)	N/A	N/A	N/A	N/A	Entire region: a total of fourteen critical facilities were found within a flood hazard area, of which two were in Greenwich, six in Norwalk, and six in Stamford.	HAZUS, local input
Fairfield	SWestCOG	Westport	Yes (data is same as previously entered for 2014 State HMP). No specific critical facility data is provided within the current regional HMP	N/A	HAZUS-MH Database, no smuplete table provided	15 for the region	135 for the region	4 Hospitals; Numerous Public and Private Medical Facilities	9 for the region	N/A	Region-wide: 19 Rail Stations; I-95; Northeast Rail Corridor	7 Waste Water Treatment Facilities; 3 Electric Power Facilities; Communication Towers (for the region)	4 Emergency Operations Centers (for the region)	N/A	N/A	N/A	N/A	Entire region: a total of fourteen critical facilities were found within a flood hazard area, of which two were in Greenwich, six in Norwalk, and six in Stamford.	HAZUS, local input
Fairfield	SWestCOG	Wilton	Yes (data is same as previously entered for 2014 State HMP). No specific critical facility data is provided within the current regional HMP	N/A	HAZUS-MH Database, no smuplete table provided	15 for the region	135 for the region	4 Hospitals; Numerous Public and Private Medical Facilities	9 for the region	N/A	Region-wide: 19 Rail Stations; I-95; Northeast Rail Corridor	7 Waste Water Treatment Facilities; 3 Electric Power Facilities; Communication Towers (for the region)	4 Emergency Operations Centers (for the region)	N/A	N/A	N/A	N/A	Entire region: a total of fourteen critical facilities were found within a flood hazard area, of which two were in Greenwich, six in Norwalk, and six in Stamford.	HAZUS, local input
Hartford	CCRPA	Burlington	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Hartford	CCRPA	New Britain	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Hartford	CCRPA	Plainville	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Wastewater Treatment Facility in 500-year floodplain	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Hartford	CCRPA	Southington	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Hartford	CRCOG	Avon	N/A	N/A	N/A	4	6	N/A	1	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Map 13 Page 209, CRNHMPUpdate-Final-FEMA-Approved
Hartford	CRCOG	Berlin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Physical Services building in floodplain	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Hartford	CRCOG	Bloomfield	N/A	N/A	N/A	7	7	N/A	1	Yes	Interstate 91, Interstate 291	MDC	N/A	N/A	N/A	Yes	N/A	N/A	Map 15 Page 217
Hartford	CRCOG	Canton	N/A	N/A	N/A	2	4	1	1	Sewage Plant, Water Treatment Plant, Public Works, Town Hall	N/A	N/A	N/A	N/A	N/A	Yes	N/A	N/A	Map 19 Page 231
Hartford	CRCOG	East Granby	N/A	N/A	N/A	3	4	N/A	Police and Resident Trooper Station	Yes	Bradley International Airport (runway); Routes 20, 187, 189; CT Air National Guard	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Map 21 Page 239
Hartford	CRCOG	East Hartford	N/A	N/A	N/A	1	20 Schools, 1 Child Care Facilty	N/A	2	CT River Levee System	Interstate 84, Interstate 384, Routes 2, 5, 15 and 44	Connecticut Natural Gas, State Dept. of IT	N/A	N/A	N/A	N/A	N/A	N/A	Listed in Description; also on Map 23 Page 248
Hartford	CRCOG	East Windsor	N/A	N/A	N/A	2	3 Schools, 1 Child Care Facilty	N/A	1	1 Town Hall; 1 Town Garage; 1 Home Fallout Shelter; 1 Public Fallout Shelter	1 Bus Company (Smyth); Interstate 91, Routes 5, 140 and 191	Prospect Hill Antenna Site	1 East Windsor Ambulance Association; Emergency Management Agency	N/A	N/A	N/A	N/A	N/A	Listed in Description; also on Map 25 Page 260
Hartford	CRCOG	Enfield	N/A	N/A	N/A	5	18 Schools, 2 Child Care Facilities	Visiting Nurses Association; Housing Authority	1	Town Hall, Public Works	Interstate 91, Routes 190, 192 and 220	Municipal Sewer System, 3 Water Companies	Emergency Management	N/A	N/A	N/A	Hazardville Historic District	3 Parks, Animal Control	Listed in Description; also on Map 29 Page 276
Hartford	CRCOG	Farmington	N/A	N/A	N/A	6	8 Schools	UCONN Health Center: John Dempsey Hospital	1; also acts as PSAP for Burlington	Town Hall, Public Works	Interstate 84, Routes 4, 6, 9 and 10; M&J Fellage Bus Inc.	Municipal Sewer; MDC	N/A	N/A	N/A	N/A	N/A	N/A	Listed in Description; also on Map 31 Page 284
Hartford	CRCOG	Glastonbury	N/A	N/A	N/A	4	9 Schools, 3 Child Care Facilities	2 Nursing Homes/Senior Housing; 1 Mountain Laurel Health Care Facility; 1 Genesis Health Care Facility	1	Town Hall, Village Green and Knox Lane Annex; 2 Maintenance Garages (Park and Vehicle)	Routes 2, 3, 17, 83 and 94	Water Pollution Control Facility; Upper Glastonbury Sewer Pump Station; MDC	Community Center; (police station is EOC)	N/A	N/A	N/A	N/A	N/A	Listed in Description; also on Map 33 Page 293
Hartford	CRCOG	Granby	N/A	N/A	N/A	1	6	1 Senior Center; Meadowbrook Nursing Home	1	Public Works	Routes 10/202, 20, 189 and 219; 1 Transportation Facility	Water is serviced through Salmon Brook Water District (190,000 water tank) [and in Simsbury-Aquarion Water Company]	YMCA; CERT; Emergency Response Team	N/A	N/A	N/A	N/A	N/A	Listed in Description; also on Map 35 Page 305
Hartford	CRCOG	Hartford	N/A	N/A	N/A	2	48 Schools; also Trinity College, UHartford, branches of UCONN and University of St. Joseph	Hartford Hospital; CT Children's Hospital; St. Francis Hospital	4	State Capitol; numerous state office buildings and other facilities	Interstate 84, Interstate 91; state routes 44, 187	MDC	N/A	N/A	N/A	N/A	Several cultural, historic and art	N/A	Listed in Description; also on Map 37 Page 315

											and 189; Brainard Airport						venues (including the Bushnell, Convention Center, XL Center, etc.)		
Hartford	CRCOG	Manchester	N/A	N/A	N/A	5	25 Schools; 4 Day Care Facilities	1 Hospital; 17 Nursing Homes/Housing Authority Facilities	2	Town Hall, Public Works	Interstate 84, Interstate 384, Interstate 291; Routes 44/6 and 83	Municipal Water and Sewer Systems; 18 Water Tanks/Pump Stations	Shelters (MACC Shelter)	Buckland Hills Mall	N/A	N/A	Cheney Brothers National Register Historic District (historic mills and housing) and downtown Main Street National Historic Register district	Senior Center; Case Mountain Recreation Area (rugged forested landscape of regional importance)	Listed in Description; also on Map 41 Page 331
Hartford	CRCOG	Marlborough	N/A	N/A	N/A	2	1	1 Hospital; 1 Senior Center; 1 Health Care Center; 1 Senior Housing Complex	N/A	Transfer Stations; Public Works Building; Town Hall (EOC)	Routes 2 and 66	Pump Station; Water Pump House; CT Propane & Petroleum	N/A	N/A	N/A	N/A	N/A	N/A	Listed in Description; also on Map 43 Page 338
Hartford	CRCOG	Newington	N/A	N/A	N/A	4	9	Cedarcrest Hospital; VA Medical Center; 4 Elderly Housing Campuses	1	CT DOT Headquarters; Highway/Vehicle Maintenance Department	Routes 9 and 5/15 (Berlin Turnpike)	MDC	N/A	N/A	N/A	N/A	N/A	Connecticut International Skating Center	Listed in Description; also on Map 45 Page 345
Hartford	CRCOG	Rocky Hill	N/A	N/A	N/A	3	5	5 Senior Housing/Assisted Living; VA Home and Hospital; 3 Nursing Home/Rehab Centers	1 Police Station (EOC)	Town Hall/Community Center (shelter), Public Works; CT State Health Lab	Interstate 91, State Routes 99, 3, 160 and 400	MDC (2 facilities)	Shelters	Freight Rail Line (Providence-Worcester); Buckeye Jet Fuel Line; Algonquin Gas Pipeline; CNG Natural Gas; Sysco; Burris Logistics	N/A	Yes	N/A	N/A	Listed in Description; also on Map 47 Page 355
Hartford	CRCOG	Simsbury	N/A	N/A	N/A	6	9	2 Senior Housing/Assisted Living Facilities	1 Police Station	Town Hall, Public Works	Routes 10/202, 167, 185, 309 and 315	4 Well House Stations	Simsbury High School (Shelter)	N/A	N/A	N/A	N/A	N/A	Listed in Description; also on Map 49 Page 365
Hartford	CRCOG	South Windsor	N/A	N/A	N/A	1	7 Schools, 1 Daycare Center	N/A	N/A	Town Garage; Town Hall	Interstate 291; State Routes 5, 30, 74 and 194	Wastewater Treatment Plant, 2 Pump Stations	N/A	N/A	N/A	N/A	N/A	UTC Hydrogen Fuel Cell; Animal Control Center	Listed in Description; also on Map 53 Page 383
Hartford	CRCOG	Suffield	N/A	N/A	N/A	4	6	N/A	1	Town Hall (EOC); Public Works	Bradley International Airport; State Routes 75, 168, 187 and 190	Railroad	Yes	N/A	N/A	N/A	N/A	North Central Connecticut Correctional Facility	Listed in Description; also on Map 57 Page 399
Hartford	CRCOG	West Hartford	N/A	N/A	N/A	1	27 Schools; and University of Hartford, University of St. Joseph, American School for the Deaf, Hartford Branch of UCONN	Several Medical Facilities	1	Town Hall, Public Works	Interstate 84; State Routes 4, 44, 71, 173, 185, 189 and 218	MDC	Yes	Several large established commercial districts	N/A	N/A	N/A	N/A	Listed in Description; also on Map 63 Page 426
Hartford	CRCOG	Wethersfield	N/A	N/A	N/A	5	8	N/A	1	Town Hall, Public Works; Town Garage susceptible to flooding; CT Dept of Corrections; Judicial; Labor Dept and Motor Vehicles	Interstate 91, State Routes 3, 5/15, 99, 175, 287 and 314	MDC	Yes	Fuel Tank Distribution Terminals; Pratt & Whitney	N/A	N/A	Several Historic District Buildings	N/A	Listed in Description; also on Map 65 Page 435
Hartford	CRCOG	Windsor	N/A	N/A	N/A	5	8	N/A	1	Town Hall, Public Works	Interstate 91, Interstate 291, State Routes 20, 75, 159, 178, 187, 218 and 305; Railroad and Bus Station	MDC	Yes; Public Safety Complex	N/A	N/A	N/A	N/A	N/A	Listed in Description; also on Map 67 Page 444
Hartford	CRCOG	Windsor Locks	N/A	N/A	N/A	2	6	1 Senior Center; 1 Rehab Center	1	Town Hall (EOC), Public Works	Interstate 91, State Routes 20, 75, 140 and 159	3 Water Pollution Control Stations within flood plain	Town Hall is EOC	Bradley International Airport	N/A	N/A	N/A	N/A	Listed in Description; also on Map 69 Page 451
Hartford	LHCEO	Hartland			Critical Facilities Map and text	2	1			1 Town Hall; 1 Town Garage									Page 107 in Draft NHMGP-Litchfield Hills, January 2016
Litchfield	LHCEO	Barkhamsted				3	2			1 Town Hall, 1 Town Garage	State Highway Network	1 MDC Supply Headquarters						Lifeline utility systems (electric and communication) and two bridges over the Farmington River	Page 76 in Draft NHMGP-Litchfield Hills, January 2016
Litchfield	LHCEO	Colebrook				2	1 School, 1 Camp			1 Town Hall, 1 Town Garage								Colebrook Facility Retro-Fit	Page 88 in Draft NHMGP-Litchfield Hills, January 2016
Litchfield	LHCEO	Goshen				1	1			1 Town Hall; 1 Town Garage		Fuel Storage Tanks for Goshen Oil						1 Goshen Gas Station/Store	Page 97 in Draft NHMGP-Litchfield Hills, January 2016
Litchfield	LHCEO	Harwinton				2	1			1 Town Hall; 1 Town Garage; 1 Harwinton Senior Center		1 Torrington Water Pollution Control Plant	1 Ambulance Association					air drop-off is available at Harwinton Fairgrounds	Page 117 in Draft NHMGP-Litchfield Hills, January 2016
Litchfield	LHCEO	Litchfield				4	3			1 Litchfield Town Hall; 1 Town Hall Annex in Bantam; 1 Town Public Works Department		1 Sewage Treatment Plant							Page 127 in Draft NHMGP-Litchfield Hills, January 2016
Litchfield	LHCEO	Morris			Critical Facilities Map for each town and text	1	1			1 Morris Town Hall; 1 Town Public Works Department, 1 Senior Center									Page 139 in Draft NHMGP-Litchfield Hills, January 2016
Litchfield	LHCEO	New Hartford				4	3			1 Town Hall; 1 Public Works Department; 1 Wastewater Treatment Plant								Several facilities appear to be located within the 100-YR floodplain of the Farmington River, including the Town Hall (proposed for relocation), Public Works Department, Wastewater Treatment Plant, and New Hartford Elementary School	Page 150 in Draft NHMGP-Litchfield Hills, January 2016
Litchfield	LHCEO	Norfolk				1	1			1 Town Hall; 1 Town Garage		1 Sewer Treatment Plant; 1 Water Tank; 1 Phone Company Bldg	1 Ambulance Association					1 gas station; existing cell towers and radio tower on Loon Meadow Drive	Page 160 in Draft NHMGP-Litchfield Hills, January 2016
Litchfield	LHCEO	Torrington				2	3		1	1 City Hall; 1 Public Works Garage; 1 Senior Center	1	High Pressure Tennessee Gas Line; 1 Sewer Treatment Plant						1 Torrington Armory; Torrington Water Company Reservoirs	Page 174 in Draft NHMGP-Litchfield Hills, January 2016
Litchfield	LHCEO	Winchester				1	2 Schools; Winchester Area Child Centers	1 Nursing Home; Elderly Housing Complexes	1	1 Town Hall; 1 Municipal Public Works Garage	1	1 Winsted Water Treatment Plant; 1 Winsted Sewer Treatment Plant						Rugg Brook and Crystal Lake Reservoirs	Page 185 in Draft NHMGP-Litchfield Hills, January 2016
Litchfield	NWCOG	Canaan				1	1 School, 1 Day Care Center			1 Town Hall; 1 Highway Garage; 1 Senior Center									
Litchfield	NWCOG	Cornwall				2	1 School, 1 Day Care Center	1 Senior housing, 1 Housing		2 Town Hall Bldgs, 1 CT DOT garage, 1 Hwy Dept		AT&T						United Congressional Church (secondary shelter)	
Litchfield	NWCOG	Kent				1	4 Schools	1 Nursing Home, 1 Senior Housing, 1 Drug Rehab Center		1 Senior Center, 1 Town Garage, 1 Community House		1 Sewer Treatment Plant, 1 Bulls Bridge Cell Tower							
Litchfield	NWCOG	North Canaan				1	1 Elementary School			1 Town Hall, 1 North Canaan Highway Garage, 1 Senior Center			1 Ambulance Garage						
Litchfield	NWCOG	Roxbury				1	1 School, 1 Day Care Center	1 Senior Housing		1 Town Hall; 1 Senior Center; 1 Public Works				1 Roxbury Market Facility					
Litchfield	NWCOG	Salisbury				1	1 School			1 Town Hall, 1 Highway Garage			1 Volunteer Ambulance Facility						
Litchfield	NWCOG	Sharon				1	1 School	1 Hospital, 1 Health Care Center, 1 Drug Rehab Center		1 Town Hall, 1 Highway Garage, 1 American Legion Hall		1 Water Treatment Facility, 1 Wastewater Treatment Plant					1 Church-Based Conference Center		
Litchfield	NWCOG	Warren				1	2 Schools (Warren Academy, Warren Elementary)			1 Town Hall, 1 Community Center, 1 Town Garage							1 Town Park (Warren Woods; seasonal, unheated facility)		
Litchfield	NWCOG	Washington				2	4 Schools			1 Town Hall, 1 Highway Garage, 1 Community Center									
Middlesex	LCRVCOG	Chester	Exposure yes, loss estimates no	N/A	N/A	1 (also used as ambulance storage)	1	Chester Village West (retirement community); 2 Nursing homes; Chesterfield's Health Care Center; Aaron Manner	1	1 Town Hall; 1 Public Works Department (equipment storage)	Small airport, Railroad, Route 9, Chester-Hadlyme Ferry	Municipal sewer in downtown area	Text says the Chester Town Hall is the EOC (Aug2014 Chester HMP); also uses Wheles Engineering as a principal shelter	N/A	Yes	N/A	Many historic structures in downtown floodplain areas	N/A	HAZUS-MH software Essential Facility inventory; mentioned in Aug2014 Chester NHMP text
Middlesex	LCRVCOG	Clinton	N/A	N/A	N/A	2	4	N/A	1	N/A	Interstate 95, railroad	CWC water service	Yes	N/A	N/A	N/A	N/A	N/A	Mentioned in text
Middlesex	LCRVCOG	Cromwell	N/A	N/A	N/A	2	5	None	1	Emergency Operations Center	Interstate 91, Route 9, Railroad	Mattabassett Wastewater Regional Treatment Facility; protected by levee; susceptible to ice jam at Wilcox Island/Arrigoni Bridge downstream causing flooding; majority of town has water service	Yes	N/A	N/A	N/A	N/A	N/A	Mentioned in text
Middlesex	LCRVCOG	Deep River	N/A	N/A	N/A	2 Fire Departments Yes, Equipment damaged in 1982 flood	4	1 Ambulance; Social Services, Senior Housing	1	Public Works; Town Hall/EOC	Route 9	Municipal sewer in downtown area	Yes, can become isolated during severe floods	N/A	N/A	1	N/A	N/A	Mentioned in text
Middlesex	LCRVCOG	Durham	N/A	N/A	N/A	1	5	None	None, RST	Emergency Operations Center	Yes	Small community water systems. Buckeye pipeline	Yes	N/A	N/A	N/A	N/A	N/A	Mentioned in text
Middlesex	LCRVCOG	East Haddam	N/A	N/A	N/A	2	3	None	N/A	Town Garage susceptible to flooding; Emergency Operations Center	Goodspeed Airport susceptible to flooding; Route 151 over Salmon River susceptible to Ice Jams (Art Christian said this was mitigated at 4/2 meeting)	Yes	Yes	N/A	N/A	N/A	N/A	N/A	Mentioned in text
Middlesex	LCRVCOG	East Hampton	N/A	N/A	N/A	3	4	None	2	Yes	Yes	Yes	Yes	N/A	N/A	N/A	N/A	N/A	Mentioned in text
Middlesex	LCRVCOG	Essex	N/A	N/A	N/A	2	1	2 retirement communities, one also an assisted living facility; Middlesex Hospital's Shoreline Clinic (stand-alone emergency room); Essex Ambulance Association	1, RST (also acts as EOC w/ Town Hall)	Town Hall, Public Works Garage/Transfer Station	Routes 9, 154, 153; railroad - 9 Town Transit District	Yes, municipal sewer system (CWC provides water); however, limited to some residents. Large portion of the town relies on private wells and septic systems	Town Hall is EOC	4 Gas Stations	N/A	1	N/A	N/A	Mentioned in text of May 2014 Essex NHMP
Middlesex	LCRVCOG	Haddam	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Public Works; Town Garage in Higganum Center is susceptible to flooding; Could be essential facility identified by HAZUS	East Haddam Bridge	Yes (no public water or sewer)	Yes	Marina adjacent to East Haddam Bridge subject to freshet flooding	N/A	N/A	N/A	N/A	Mentioned in text
Middlesex	LCRVCOG	Killingworth	N/A	N/A	N/A	1	2	Jensen's over-55 manufactured home park; Ambulance	1 R.S.T. (EOC)	Town Hall, Public Works	Route 81	N/A	Killingworth Elementary School (KES) Shelter; Haddam-Killingworth Middle School (HKMS) Shelter	2 gas stations, if not accessible; TrueValue store provides many supplies	N/A	N/A	N/A	N/A	Mentioned in text
New London	LCRVCOG	Lyme	N/A	N/A	N/A	Hadlyme Fire Station; Lyme Fire Department	Lyme School	Ambulance (within Hadlyme Fire Station)	N/A	Town Hall; Public Works Garage	Routes 161, 82, 148, Ferry Service	No public water or sewer, vulnerable to power outages	Yes	N/A	N/A	Lyme Public Library	N/A	N/A	Mentioned in text
Middlesex	LCRVCOG	Middlefield	N/A	N/A	N/A	1	3	None	1	Emergency Operations Center	Yes	Buckeye pipeline, three sewer service areas	Yes	N/A	N/A	N/A	N/A	N/A	Mentioned in text
Middlesex	LCRVCOG	Middletown	N/A	N/A	N/A	South District Fire Station in floodplain	Yes	Connecticut Valley Hospital (mental health), Middlesex Hospital	Yes	City Hall at risk of flooding (flood stage of 19+ feet)	Highways, freight rail,	Middletown Water & Sewer; Middletown WTP to be closed has a high -risk of flooding (and past unreported flood damages); large generating plant and another (Kleen) under construction; petroleum pipelines	Yes	Harbor Park on CT River frequently floods	N/A	Russell Library	N/A	N/A	Mentioned in text
New London	LCRVCOG	Old Lyme	N/A	N/A	N/A	3	5	N/A	1	Senior Center; Transfer Station; Town Hall; Public Works	Interstate 95; Railroad	Small public water systems, no sewer (although sewer is now connected to POW in SE corner of town)	Yes	N/A	N/A	N/A	N/A	N/A	Mentioned in text; also Map 3, page 27
Middlesex	LCRVCOG	Old Saybrook	N/A	N/A	N/A	2	4	2 nursing homes (not in 1% floodplain); Apple Rehab is within 0.2% floodplain	1	Town Hall, Dept. of Public Works	Interstate 95, Railroad, most critical facilities located along Route 1; State DOT garage	Telecommunications, electric, natural gas, gasoline and oil, water supply	Emergency response (in 1% floodplain), EOC, shelters (Old Saybrook High School primary); All critical facility buildings in 0.2% floodplain	Facilities that store and use hazardous materials (mostly on Route 1 outside of 1% floodplain)	N/A	N/A	N/A	Dams	Mentioned in text
Middlesex	LCRVCOG	Portland	N/A	N/A	N/A	N/A	Water backs up into basement of Brownstone Intermediate School during severe storms; only high school has emergency generator	Yes	Water backs up into basement during severe storms	Public Works; transfer station (no emergency generator)	Railroad bridge from Middletown	WWTP, Petroleum storage tanks, and Hazardous Waste Transfer Facility in CT River floodplain; No emergency power for water well or water pumping station; Water storage tanks and chlorinator building near State Forest (wildfire risk)	Yes	Marinas on CT River and Industrial area near bridge at risk of flooding from major freshets	N/A	No emergency generator	N/A	Senior Center (no emergency generator); 6 RLPs; one of which is a SRL property	Mentioned in text

Middlesex	**LCRVCOG**	**Westbrook**	**N/A**	**N/A**	**N/A**	**2**	**3**	**Middlesex Hospital Shoreline Medical Center**	**2**	**Public Works Garage; EOC is located in Town Hall at relatively low elevation and can be isolated by flooding on Route 1, potential to move it to a nearby school**	**Interstate 95**	**CWC provides water service**	**Westbrook High School is large and has a generator, but is not the primary shelter because it can be cut off by flooding. Daisy Ingraham School is primary shelter.**	**N/A**	**N/A**	**Westbrook Public Library**	**N/A**	**N/A**		**Mentioned in text**
New Haven	**NVCOG**	**Ansonia**	**Yes**	**Buildings**	**Table 2-5 Critical Facilities, HAZUS**	**1 Fire Stations; (New Haven County Fire Facility Functionality 100% after 100-YR flood, 0% after 500-YR flood)**	**1 Schools; (New Haven County: School Functionality 100% after 100-YR flood, 0% after 500-YR flood)**	**2 nursing & rehab; 5 elderly housing; (New Haven County: Hospital has 0% of beds at day one of 100-YR flood, 100% of beds 3 days after 100-YR flood, 0% of beds at day one of 500-YR flood, 100% of beds 30 days after 500-YR flood)**	**1 Police Station; (New Haven County: Police Station Facility Functionality 100% after 100-YR flood, 0% after 500-YR flood)**	**1 Public Works; 1 Armory**		**1 United Illuminating Substation**	**1 Ansonia Rescue Medical Services**					**8 day care; 1 multi-lingual / limited transportation; (Entire Region: Minimal earthquake damage in all HAZUS scenarios. Minimal hurricane damage to essential facilities for wind speeds less than 78 mph; hospital has moderate damage with an increasing length of loss of use from the 100-year return period to the 500-year return period; minor damage to the remaining essential facilities is likely to occur for all greater wind events.)**	**HAZUS, town list of critical facilities, text**
New Haven	**NVCOG**	**Beacon Falls**	**N/A**	**N/A**	**N/A**	**1 total (includes EMT-Ambulance services),** located in 500 year floodplain	**2 total,** 1 located in 500 year floodplain	**1 Senior Center**, 1 located in 500 year floodplain	**1 total,** 1 located in 500 year floodplain	**1 Town Hall; 1 Public Works; 1 Auxiliary Building**	**Routes 8 and 42**	**6 total,** 2 located in 100 year floodplain (some)	**1 total,** 1 located in 500 year floodplain	**2 Radio Towers**	**N/A**	**N/A**	**N/A**	**N/A**		**Table 2-5**
Litchfield	**NVCOG**	**Bethlehem**	**N/A**	**N/A**	**N/A**	**1**	**2 Schools; 1 Day Care Center**	**1 Ambulance Association, 1 Elderly Home, 5 Group Homes**	**1**	**1 Town Hall, 1 Public Works; 1 Memorial Hall (Community Center)**	**Routes 61 and 132; Main Street South (Town Center)**	**N/A**	**Yes**	**"Various"**	**N/A**	**N/A**	**N/A**	**Abbey of Regina Laudis; Church of the Nativity**		**Table 2-5**
Hartford	**NVCOG**	**Bristol**	**N/A**	**N/A**	**N/A**	**5 engine companies; 1 tower company**	**19 Schools**	**1 Bristol Hospital**	**1 police department/station**	**City Hall; Public Works; Senior Center**	**Routes 72, 69, 6. Also Hartford, Providence and Fishkill Railroad is operated by Pan Am Southern for freight between New Britain and Waterbury**	**N/A**	**Yes**	**ESPN**	**Yes**	**N/A**	**N/A**	**17 RLP "zones" on critical facilities map**		**Mentioned in text of January 2015 Former CCRPA_HMPUpdate**
New Haven	**NVCOG**	**Cheshire**	**N/A**	**N/A**	**N/A**	**3 Fire Departments**	**11 Schools; 1 Youth Center**	**3 Assisted Living Developments; 1 Health District Center**	**1 police station**	**1 Correctional Facilities; 1 Town Office; 1 Public Works Garage**	**Routes 10, 68, 70, 42 and I-691 and I-84**	**Public Water & sewer (1 sewage treatment plant)**	**1 total, (Chesprocott Health District, mentioned in Hospitals to the left)**	**N/A**	**N/A**	**1 Library**	**N/A**	**waste water treatment plant located in floodplain,** mobile home park		**Mentioned in text of 2014 Cheshire HMP Update_final; also listed in Table 2-3**
New Haven	**NVCOG**	**Derby**	**Yes**	**Buildings**	**Table 2-5 Critical Facilities, HAZUS**	**1**	**2**	**7 assisted living and elderly housing; 2 hospital and cancer center**	**1**	**1 City Hall; 1 public works; 6 stormwater pump stations**		**1 wastewater treatment plant; 8 sewer pump stations**						**1 dam; (Entire Region: Minimal earthquake damage in all HAZUS scenarios. Minimal hurricane damage to essential facilities for wind speeds less than 78 mph; hospital has moderate damage with an increasing length of loss of use from the 100-year return period to the 500-year return period; minor damage to the remaining essential facilities is likely to occur for all greater wind events.)**	**HAZUS, town list of critical facilities, text**
New Haven	**NVCOG**	**Middlebury**	**N/A**	**N/A**	**N/A**	**1 total (1 adjacent to floodplain)**	**1 Schools; 2 Child Care Facilities**	**1 Convalescent Home; 1 Age-Restricted Housing Unit; 1 Handicap Assistanship Facility**	**1**	**1 Public Works; 1 Town Hall; 1 Community Center**	**I-84**	**11 total, 3 in floodplain, (3 adjacent to floodplain)**	**Yes**	**1 Hazardous Chemical Facility**	**N/A**	**1**	**N/A**	**N/A**		**Table 2-4**
New Haven	**NVCOG**	**Naugatuck**	**N/A**	**N/A**	**N/A**	**2 total, 1 located in 500 year floodplain**	**11 total, 1 located in 500 year floodplain**	**1 EMT Ambulance**	**1 total**	**1 Municipal Office (located in 500 year floodplain); 1 Public Works; 1 Senior Center; 1 Food Bank (within 500-year floodplain)**	**Routes 8 and 63**	**5 total, 3 located in floodplain (some), 2 located in 500 year floodplain**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**		**Mentioned in text and Table 2-4**
New Haven	**NVCOG**	**Oxford**	**N/A**	**N/A**	**N/A**	**3 Firehouse Facilities**	**4 Schools**	**Oxford Greens Facility (Elderly facility)**	**1 total (within 1 % annual chance floodplain)**	**1 Town Hall; 1 Public Works Facility (within 0.2% annual chance floodplain); 1 Housing Authority Facility**	**Routes 67, 188 and 42**	**1 Gas Station; 7 Waste Water System Facilities (1 within 1% annual chance floodplain)**	**Yes**	**Regional Airport, 2 Facilities**	**N/A**	**N/A**	**N/A**	**N/A**		**Table 2-2**
Litchfield	**CCRPA**	**Plymouth**	**N/A**	**N/A**	**N/A**	**3**	**2 Schools, a third once a generator is installed**			**1 Town Hall (Police Department Floor); 2 Garages (Town Garage and Highway Garage)**		**1 Water Pollution Control Facility**	**"Emergency shelters;" 1 Volunteer Ambulance Facility**							**Page 232 in FormerCCRPA_HMPUpdate01-21-16**
New Haven	**NVCOG**	**Prospect**	**N/A**	**N/A**	**N/A**	**1**	**3 Schools; town officials: Community School (Center Street) might be converted to a community center if purchased from the Regional School District #16**	**1 Nursing Home; uses nearby Waterbury medical centers**	**1**	**Town Office; Senior Center (designated shelter); Town Garage/Public Works**	**Routes 68 and 69**	**Public Water and Sewer Systems**	**Yes**	**N/A**	**N/A**	**1**	**N/A**	**1 total (mobile home park)**		**Table 2-3**
New Haven	**NVCOG**	**Seymour**	**Yes**	**Buildings**	**Table 2-5 Critical Facilities, HAZUS**	**1**	**2**	**4 assisted living and elderly housing**	**1**	**1 public works; 1 water pollution control facility**		**1**						**1 Regional Water Authority Wellfield; (Entire Region: Minimal earthquake damage in all HAZUS scenarios. Minimal hurricane damage to essential facilities for wind speeds less than 78 mph; hospital has moderate damage with an increasing length of loss of use from the 100-year return period to the 500-year return period; minor damage to the remaining essential facilities is likely to occur for all greater wind events.)**	**HAZUS, town list of critical facilities, text**
Fairfield	**NVCOG**	**Shelton**	**Yes**	**Buildings**	**Table 2-5 Critical Facilities, HAZUS**	**3 Fire Stations; (Fairfield County: Fire Station Functionality 100% after 100-YR event, 0% after 500-YR event)**	**1 School; (Fairfield County: School Functionality 100% after 100-YR event, 0% after 500-YR event)**	**9 Elderly Housing, Assisted Living, and Convalescent Homes**	**2 Police Station; (Fairfield County: Police Station Functionality 100% after 100-YR event, 0% after 500-YR event)**	**1 Community Center; 1 Animal Shelter; 1 City Hall; 1 Public Works; 1 Water Pollution Control Facility**			**(Fairfield County: Emergency Response Center Facility Functionality 100% after 100-YR event, 0% after 500-YR event)**					**9 daycare facilities; 3 mobile home parks; (Entire Region: Minimal earthquake damage in all HAZUS scenarios. Minimal hurricane damage to essential facilities for wind speeds less than 78 mph; hospital has moderate damage with an increasing length of loss of use from the 100-year return period to the 500-year return period; minor damage to the remaining essential facilities is likely to occur for all greater wind events.)**	**HAZUS, town list of critical facilities, text**
New Haven	**NVCOG**	**Southbury**	**N/A**	**N/A**	**N/A**	**1 Fire Dept; 1 Backup Dispatch Center**	**1 total,**	**1 Ambulance Service; 1 Health Care Facility**	**1 total,**	**Senior Center; (Public Works Department)**	**I-84; Routes 67, 6 and 172**	**3 total, 1 sewer located in floodplain, 1 water located in 100-yr floodplain**	**Yes**	**National Defense and Communications (500-yr floodplain)**	**N/A**	**N/A**	**N/A**	**1 Active Adult Condo Facility; 1 Clustered Housing Facility; 1 Assisted Living Community; Disabled/Low Income Housing; 2 Life Care Communities**		**Table 2-4**
Litchfield	**NVCOG**	**Thomaston**	**Essential Facility Damage: Minor or None for all Year Chance Flood Events (HAZUS-MH within 2015 Thomaston HMP Update)**	**N/A**	**N/A**	**1**	**3**	**3 Elderly Rental Complexes; 1 Ambulance**	**1**	**1 Town Hall; 1 Public Works; 2 State Facilities (DOT Garage; District 4 HQ)**	**Routes 6, 8, 222, 254 and 109**	**4 Utilities: sewer, water, electric and telephone (2 of which located within 1% annual chance floodplain); 5 Pump Stations**	**4 Radio Equipment Shelter facilities**	**N/A**	**N/A**	**N/A**	**N/A**	**1 Communications Building (located in a wildfire risk area)**		**Table 2-5 (2015 Updated Thomaston HMP)**
New Haven	**NVCOG**	**Waterbury**	**N/A**	**N/A**	**N/A**	**10 total,**	**32 Schools**	**3 Assisted Living Developments; 2 Hospitals;**	**2 total,**	**3 City Offices**	**I-84, Route 8, railroad**	**Public Water & sewer**	**1 Office of Emergency Management;**	**N/A**	**N/A**	**1 total,**	**N/A**	**N/A**		**Table 2-3 (Jan 2015 Waterbury HMP Update)**
Litchfield	**NVCOG**	**Watertown**	**N/A**	**N/A**	**N/A**	**2 departments**	**6 schools**	**4 Elderly housing facilities; 1 Apple Rehab facility; 1 Watertown Convalarium**	**1**	**Municipal Buildings; 1 Primary Highway Garage; 1 Secondary Highway Garage; 1 Senior Center; Waterbury Fire District Offices and Infrastructure**	**Routes 6, 8, 63, 262**	**1 AT&T Switching Station; Water and Sewer Department and Infrastructure; Waterbury Water Treatment Plant; CL&P Substation;**	**Yes**	**Watertown Food Bank; 1 Board of Education Building**	**N/A**	**N/A**	**N/A**	**N/A**		**Table 2-2**
New Haven	**NVCOG**	**Wolcott**	**N/A**	**N/A**	**N/A**	**1 Volunteer stations; 1 Fire Dept**	**5 Schools**	**1 Convalescent Home**	**1 police department/station**	**Public Works; Water Department; Town Office**	**Routes 69 and 322**	**N/A**	**Yes**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**		**Table 2-3**
Litchfield	**NVCOG**	**Woodbury**	**N/A**	**N/A**	**N/A**	**2**	**1 school**	**2 Convalescent Homes**	**1**	**2 Public Works; 1 Town Offices Facility; 1 Community/Senior Center; 1 Woodlake Condominiums Facility/Community Center**	**N/A**	**1 Police Radio Tower; 3 Public Water Supply Pump Stations**	**Yes**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**		**Table 2-2**
New Haven	**SCRCOG**	**Bethany**	**Yes (exposure)**	**Buildings & Value ($)**	**Local data, SCRCOG and Hazus-MH**	**2**	**2**	**N/A**	**N/A**	**1 Town Hall**	**Old Airport**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**13**	**N/A**		**List of Critical Facilities in SCRCOG Data Collection.**
New Haven	**SCRCOG**	**Branford**	**Yes (exposure)**	**Buildings & Value ($)**	**Local data, SCRCOG and Hazus-MH**	**5 (HAZUS: 1)**	**5 (HAZUS: 9)**	**1 CT Hospice; 1 Community House (within flood zone); 1 Branford Hills Health Center; 1 Counseling Center; 5 Elderly Housing facilities**	**1 (HAZUS: 2)**	**1 Town Hall; 2 Housing Authority Facilities; 1 Public Works; Army Reserve Center; State Armory**	**N/A**	**1 Water Treatment Plant; 1 Substation; various pumping stations; 1 Treatment Plant; cellular towers**	**N/A**	**Hearth at Gardenside**	**N/A**	**Willoughby Wallace Library**	**1,771**	**N/A**		**List of Critical Facilities in SCRCOG Data Collection.**
New Haven	**SCRCOG**	**East Haven**	**Yes (exposure)**	**Buildings & Value ($)**	**Local data, SCRCOG and Hazus-MH**	**4 Fire Stations Total** 4 total, minor earthquake damage; 100-year + 500-year wind: minor damage with loss of use of more than one day;	**4 Schools Total** 12 total; earthquake - minor damage - 2 schools with less than 50% functionality; 100-year wind: none or minor damage, loss of use greater than one day at five schools; 500-year wind: minor damage, loss of use greater than one day at each; 100-year coastal flood: one school with moderate damage and loss of use;	**6 Senior Living Facilities/Nursing Homes** 3 total, 1 in cat. 3 surge zone; earthquake - minor damage, 48% of beds out of service initially, 27% out after one week, 8% out of service after one month; 100-year &500-year wind: minor damage, loss of use greater than one day;	**1 total**, 1 in floodplain or coastal flood hazard area; earthquake - none or minor damage; 100-year & 500-year wind: minor damage, loss of use greater than one day;	**1 Town Hall; 1 DPW Facility; Bradford Manor Station; 1 Senior Center** 2 total, 1 in floodplain or coastal flood hazard area	**Tweed-New Haven Regional Airport; 3 Underpasses at I-95**	**1 Telecommunications Station**	**1 Emergency Radio Infrastructure**	**N/A**	**N/A**	**N/A**	**49**	7 total, senior center in cat.4 surge zone, airport in cat. 1 surge zone and floodplain or coastal flood hazard area, sewer pumping station in floodplain or coastal flood hazard area and various surge zones,		**List of Critical Facilities in SCRCOG Data Collection.**
New Haven	***SCRCOG***	***Guilford***	**Yes (exposure)**	**Buildings & Value ($)**	**Local data, SCRCOG and Hazus-MH**	**5 total,** 1 cat.4 surge zone, 1 cat.3 surge zone, 1 cat.3 surge zone and in floodplain or coastal flood hazard area; 500-year wind will cause minor damage and loss of use >1 day to each; earthquake - minor damage and less than 50% functionality after one day	**1 School Total** 8 total; 100-year wind: minor damage and loss of use >1 day at 7 schools; 500-year wind: minor damage and loss of use >1 day at each; earthquake - minor damage and less than 50% functionality after one day	**1 Apple Rehab Center; Guilford House (Farmer, West Lake Lodge); 1 Medical Center; 3 Senior Living Centers** 1 total (nursing home)	**1 total**, 500-year wind: minor damage and loss of use > 1 day; earthquake - minor damage, less than 50% functionality after one day	**3 Town Hall; 1 Community Center; 1 DPW Facility/Town Garage** 2 total, town hall cat.4 surge zone, dpw cat.1 surge zone and in floodplain or coastal flood hazard area	**Transfer Station; 6 Total Boat Yard/Yacht Club/Marina Facilities** 4 total (boat yards), 4 in cat.1 surge zone and in floodplain or coastal flood hazard area	**CWC Tank**	**Stump Dump 2 Shelters (Community Shelter, H.S.)**	**Brooks and Whittle; The Gables**	**N/A**	**1 Library**	**1,016**	7 total, community center cat.4 surge zone, multiple assissted living in floodplain and cat.1-4 surge zone		**List of Critical Facilities in SCRCOG Data Collection.**
New Haven	**SCRCOG**	**Hamden**	**Yes (exposure)**	**Buildings & Value ($)**	**Local data, SCRCOG and Hazus-MH**	**5 Fire Stations total**	**3 Schools (Noah sees 2)**	**11 Health Care/Senior Living Facilities**	**1**	**1 Community Center; 1 Public Works Facility; 1 Public Works Garage (Vehicle Repair); 1 Town Hall, 1 Government Center (EOC)**	**1 Stormwater Flood Control System**	**1 Wellfield (SCRWA); 8 Sewer Pump Stations; 1 Water Treatment Plant (SCRWA), Stormwater Control System**	**EOC (Government Center)**	**N/A**	**N/A**	**N/A**	**85**	**Lake Whitney Dam**		**List of Critical Facilities in SCRCOG Data Collection.**
New Haven	**SCRCOG**	**Madison**	**Yes (exposure)**	**Buildings & Value ($)**	**Local data, SCRCOG and Hazus-MH**	**2**	**1** (11)			**1 Town Campus, Town Garage, Public Works**	**I-95 and rail, I-95 Rest Stops**	**N/A**	**Ambulance EOC 2 Shelters (Gym @ Town Campus, N. Madison Congregational Church)**	**467 commercial, 156 industrial**	**N/A**	**N/A**	**190**	**6 public works, 1 rail station, 1 shelter**		**List of Critical Facilities in SCRCOG Data Collection.** Simple exposure analysis using GIS intersects
New Haven	***SCRCOG***	***Meriden***	**Yes (exposure)**	**Buildings**	**GIS analysis**	**6 (HAZUS: 5)**	**1 School total (HAZUS: 21)** 100 year hurricane minor damage, 500 year hurricane 1 has at least moderate damage, Portland 5.7 earthquake moderate damage to 10	**1 Hospital; 16 Rehab/Healthcare facilities** 1 total, 100 year hurricane minor damage, 500 year hurricane at least moderate damage, no beds in service after one week, totally operational after 30 days, Portland 5.7 earthquake minor damage, 26% beds in service after earthquake, 48% in service after 1 week, 77% in service after 30 days	**1 total (EOC)**, 100 year hurricane minor damage, 500 year hurricane minor damage, Portland 5.7 earthquake minor damage	**City Hall, Public Works Garage**	**N/A**	**Yankee Gas Facility, Telephone & Cable providers. Radio Towers on West Peak, WPCF, 3 WW P.S., Water Treatment Plant (in Cheshire) & Pump stations**	**6 Shelters (Muravnick Senior C., Washington MS, Lincoln MS, Thomas Edison MS, Platt HS, Maloney HS), Ambulance**		**Yes**	24 total,		
New Haven	**SCRCOG**	**Milford**	**Yes (exposure)**	**Buildings & Value ($)**	**Local data, SCRCOG and Hazus-MH**	**4 Fire Stations total**	**1 School (within floodplain)**	**5 Healthcare/Rehab/Homecare Centers; 1 Hospital**	**1 total (EOC)**	**1 City Hall (within floodplain); 1 Milford Health Department; Parsons Government Center; Carriage Green; 1 Public Works Building; Milford Senior Center**	**N/A**	**N/A**	**EOC (Police Station) 2 Shelters (Jonathan Law HS., Milford Senior Center)**	**N/A**	**N/A**	**N/A**	**350**	**Acord Inc (?)**		**List of Critical Facilities in SCRCOG Data Collection.**
New Haven	**SCRCOG**	**New Haven**	**Yes (exposure)**	**Buildings & Value ($)**	**Local data, SCRCOG and Hazus-MH**	**10 total**, 1 located in flood zone	**5 total**, 1 located in flood zone **(HAZUS: 66)**	**2 total,**	**1**	**City Hall/Government Center; Department of Public Works; New Haven Health Department; New Haven School Department; Department of Parks and Recreation**	**Tweed-New Haven Regional Airport** 2 total, 2 located in flood zone	**Regional Water Authority Facility; Union Station (rail, bus)**	**1 total,**	**N/A**	**N/A**	**1 total,**	**8,982**	**Fire Training Academy,** 1 located in flood zone; **Dwight-Chapel (wedding hall); 3 Sports facilities (indoor and outdoor); 1 Park; 6 additional facilities mentioned**		**List of Critical Facilities in SCRCOG Data Collection.**
New Haven	**SCRCOG**	**North Branford**	**Yes (exposure)**	**Buildings & Value ($)**	**Local data, SCRCOG and Hazus-MH**	**3 Fire Stations**	**4 Schools Total**	**1 Ambulance Station; 2 Elderly/Handicapped Facilities; 1 Mobile Home Park**	**1**	**1 Senior/Community Center; 1 Public Works; 1 Town Hall**	**N/A**	**5 Sewer Facilities; 1 Filtration Plant**	**Yes**	**N/A**	**N/A**	**N/A**	**184**	**N/A**		**List of Critical Facilities in SCRCOG Data Collection.**

New Haven	SCRCOG	North Haven	Yes (exposure)	Buildings & Value ($)	Local data, SCRCOG and Hazus-MH	4 Fire Stations	2 Schools total	N/A	1	1 Public Works; 1 Town Hall; 1 Senior Center	I-91 and rail	Pump Stations	2 Shelters (High School, Senior Center)	N/A	N/A	N/A	83	N/A	List of Critical Facilities in SCRCOG Data Collection.
New Haven	SCRCOG	Orange	Yes (exposure)	Buildings & Value ($)	Local data, SCRCOG and Hazus-MH	2	8	N/A	1	Town Hall, Public Works	I-95 and rail	N/A	1 Shelter (High Plains Community Shelter)	871 commercial, 127 industrial	N/A	N/A	69	1 public works	Simple exposure analysis using GIS intersects
New Haven	SCRCOG	Wallingford	Yes (exposure)	Buildings	Local data, SCRCOG and Hazus-MH	5 Fire Stations (HAZUS: 1)	5 Schools Total (HAZUS: 18)	1 Rehab Center; 2 Hospitals; 1 Nursing Home	1 total (EOC) (HAZUS: 2)	6 Public Housing Facilities; 1 Public Works Facility; 1 Town Hall;	I-91 and rail	1 Wastewater Treatment Plant; Water Treatment Plant; 1 Electric Generation Facility	EOC 1 Emergency Management Building 4 Shelters (Sheehan HS, Lyman HS, Dag Hammerskjold, Moran)	N/A	N/A	N/A	127	Genesis Health Care; Silver Pond Apartments	List of Critical Facilities in SCRCOG Data Collection.
New Haven	SCRCOG	West Haven	Yes (exposure)	Buildings & Value ($)	Local data, SCRCOG and Hazus-MH	3	2 Schools Total (HAZUS: 17)	1 VA Medical Center; Apple Rehab Center; Paradigm Health Care	1 total,	14 Public Housing Facilities; 1 Senior Housing Facility; 1 City Hall (EOC)	I-95 and rail	WWTP; Main Pump Station, 12 other Pump Stations	EOC (City Hall) 1 Shelter (Carrigan MS)	N/A	N/A	N/A	37	N/A	List of Critical Facilities in SCRCOG Data Collection.
New Haven	SCRCOG	Woodbridge	Yes (exposure)	Buildings & Value ($)	Local data, SCRCOG and Hazus-MH	1	1 (HAZUS: 5)	1 Extended Care Facility	1 (part of Senior Center Building)	1 Town Hall; 1 DPW facility; 1 Senior Center/Police Station	N/A	RWA Water Treatment Plant	N/A	N/A	N/A	1	65	N/A	List of Critical Facilities in SCRCOG Data Collection.
New London	SCCOG	Bozrah	HAZUS-MH; NFIP; FEMA; Local	N/A	2017 SCCOG HMP Update	1 Bozrah Volunteer Fire Company; *Region-wide 46 total; 100 year hurricane event: none or minor damage, no loss of use, 500 year hurricane event: At least moderate damage to two locations, no loss of use, earthquake East Haddam 6.4: 200 with at least moderate damage, 4 completely destroyed, only 2 functional after 1 day*	1 School; *Region-wide 120 total; 100 year hurricane event: minor damage, loss of use >1 day at 109 schools, 500 year hurricane event: At least 67 schools with more than moderate damage, loss of use > 1 day at each location, earthquake East Haddam 6.4: 65 with at least moderate damage, 7 completely destroyed, only 6 functional after 1 day* 100 year flood event 1 at least moderate damage and subsequent loss of use	1 Fitchville Residential Home Care; 1 Reliance House Substance Abuse Rehab House; 1 Home for people with disabilities; *Region-wide 2 total; 100 year hurricane event: At least moderate, 500 year hurricane event: Complete damage, no service for at least one month, earthquake East Haddam 6.4: One with at least moderate damage, 75% of beds out of service initially, 53% of beds out of service after one week, 25% out of service for more than 30 days*	*Region-wide 23 total; 100 year hurricane event: none or minor damage, no loss of use, 500 year hurricane event: At least moderate damage to one location, no loss of use, earthquake East Haddam 6.4: 10 with at least moderate damage, 9 completely destroyed, only 1 function after 1 day*	1 Highway Department Garage	Route 2, 82, 163, 608	Norwich Public Utilities Potable Water Facilities (located within SFHA)	Yes	1 Bozrah Moose Lodge; Multiple chicken farms	N/A	N/A	N/A	N/A	Listed in Table 2-1 (2017 SCCOG Update: Bozrah annex)
New London	SCCOG	Colchester	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update Colchester Annex	2 Fire Departments	2 Schools	3 Backus Healthcare facility; 10 total rehabs, nursing homes, elderly housing complexes and mobile home parks	1 Police Department	1 Town Hall; 1 Public Works Garage	N/A	2 Communication Towers; 3 Wellfield Facilities (2 of which within SFHA); 1 Water Pump Station; 1 Water Tank facility; 1 Sewer P.S.	Yes	N/A	N/A	N/A	N/A	N/A	Listed in Table 2-1 (2017 SCCOG Update: Colchester annex)
New London	SCCOG	East Lyme	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	3 Fire Stations	2 Schools	3 Elderly housing and health services facilities	1 Police Department	1 Public Safety Building (EOC); 1 Public Works Field Services Complex; 1 Town Hall; 1 Community Center	N/A	1 Public Works Sanitation Department	Yes	N/A	N/A	N/A	N/A	N/A	Listed in Table 2-1 (2017 SCCOG Update: East Lyme annex)
New London	SCCOG	Franklin	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	1 Fire Department	1 School; 1 Daycare facility	4 total healthcare/senior living facilities	N/A	1 Town Hall; 1 public works garage	(New England Central Railroad; though not listed as critical facility)	N/A	Yes	1 Norwich Orthopedic Group facility	N/A	N/A	N/A	N/A	Listed in Table 2-1 (2017 SCCOG Update: Franklin annex)
New London	SCCOG	Griswold	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	2 Fire Departments	3 Schools; 2 Daycare facilities	1 Youth and family service facility (within 1% annual Floodplain); 1 senior center; 4 healthcare/senior living facilities	100 year flood event 1 at least moderate damage and subsequent loss of use	1 Town Hall; 1 Public Works;	N/A	1 wastewater treatment plant (within 1% annual floodplain)	Yes	N/A	N/A	(within the Town Hall complex)	N/A	N/A	Listed in Table 2-1 (2017 SCCOG Update: Griswold annex)
New London	SCCOG	Groton (City)	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	2 Fire Stations	2 Schools	1 Elderly Housing facility	1 Station (as part of City Hall)	City Hall (EOC, Police, Groton Utilities, Public Works-within 2% annual floodplain)	N/A	1 Water Pollution Control Facility (within floodplain and surge zone)	Yes	Pfizer, Electric Boat (both within floodplain and surge zones)	N/A	N/A	N/A	N/A	Listed in Table 2-1 (2017 SCCOG Update: Groton City annex)
New London	SCCOG	Groton (Town)	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	7 Fire Station facilities total (3 of which within floodplain and surge zones; 1 "GLP" Police and Fire within 100 year flood event; 2 at least moderate damage and subsequent loss of use	1 School	2 Ambulance facilities; 1 Senior Center; 10 Senior Living and Healthcare Facilities (1 of which within flood zone and surge zone)	1 Police Facility (within 100 year floodplain and surge zone) 1 at least moderate damage and subsequent loss of use)	1 Town Garage; 1 Town Hall; 1 EOC/Emergency Call Center/Public Safety facility	1 Groton-New London Airport; 1 U.S. Navy Base (both within flood zone and surge zone)	Various sewer pumping stations (some within flood and surge zones); 1 Groton Utilities Water Treatment Plant	Yes	N/A	N/A	N/A	N/A	N/A	Listed in Table 2-1 (2017 SCCOG Update: Groton Town annex)
New London	SCCOG	Lebanon	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	1 (also EOC)	3 Schools; 1 Camp	1 Elderly housing facility; 1 Senior Center	1	Public Works Garage	N/A	1 NPU Water Treatment Plant; 2 transformer stations, pumping stations and several telephone towers	Yes	Small industrial park off Route 207	N/A	N/A	Historic district downtown with important structures from Revolutionary War period	N/A	Listed in Table 2-1 (2017 SCCOG Update: Lebanon annex)
New London	SCCOG	Ledyard	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	2 Stations	2 Schools	N/A	1	1 Town Hall and Annex; 1 Public Works Garage	N/A	1 Wastewater Treatment Facility	Yes	N/A	N/A	N/A	N/A	N/A	Listed in Table 2-1 (2017 SCCOG Update: Ledyard annex)
New London	SCCOG	Lisbon	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	1 (also EOC)	1 School	N/A	N/A	1 Town Hall; 1 Public Works Garage; 1 Resident State Trooper	N/A	N/A	Yes	N/A	N/A	N/A	N/A	N/A	Listed in Table 2-1 (2017 SCCOG Update: Lisbon annex)
Unaffiliated	SCCOG	Mashantucket Pequot Tribal Nation	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	(within Public Safety Complex)	1 Mashantucket Pequot Tribal Nation Child Development Center	N/A	(within Public Safety Complex)	1 Community Center (Tribe's Government Center); 1 Public Safety Building/EOC (contains Police, Fire, Emerg. Services, Dispatch, Animal Control, Tribal Court)	N/A	Mashantucket Pequot Tribal Nation Co-Generation Plant	Yes	N/A	N/A	N/A	N/A	Plans for backup EOC at Eagle Park in North Stonington)	Listed in text (2017 SCCOG Update: MPTN annex)
Unaffiliated	SCCOG	Mohegan Tribe	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	(within Public Safety Complex)	N/A	N/A	(within Public Safety Complex)	1 Senior Center/daycare; 3 Public Works facilities	N/A	"Roads, transmission lines, emergency backup generators and substation"	1 Public Safety Building/EOC (contains Police and Fire)	N/A	N/A	N/A	N/A	There are 28 emergency generators located at various facilities throughout the Reservation.	Listed in text (2017 SCCOG Update: Mohegan annex)
New London	SCCOG	Montville	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	4 Fire Companies (3 within SFHA, Chesterfield Fire Co. Low risk for riverine flooding, and risk reduction recommendations were not necessary)	2 Schools	5 Special Care and Elderly Housing Facilities	(within Public Safety Building)	1 Public Safety Building (EOC); 1 Town Hall (backup EOC); 1 Public Works Building	N/A	1 Cook Drive Water Tank; 1 Montville (Pink Row) WPCF; 1 Killeen Road Substation; various water & wastewater infrastructure	Yes	N/A	N/A	N/A	N/A	N/A	Listed in text (2017 SCCOG Update: Montville annex)
New London	SCCOG	New London	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	3 total fire stations; 1 HQ/EOC within 1% annual chance flood and surge zone; 1 at least moderate damage and subsequent loss of use	5 Schools	1 hospital; 1 Community Health Center; 7 total Elderly housing/Rehab home complexes	1 Police Dept HQ: within surge zone	1 City Hall; Stanton Building; 1 Public Works Complex; Senior Centre	N/A	1 Water Pollution Control Facility (within flood zone X and surge zone)	Yes	N/A	N/A	N/A	N/A	N/A	Listed in text (2017 SCCOG Update: New London annex)
New London	SCCOG	North Stonington	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	1 Volunteer Fire Department	1 School	1 Medical Clinic; 1 Ambulance	(within Old and New Town Hall facilities)	1 Town Hall-new/EOC; Old Town Hall; Public Works Garage	N/A	N/A	Yes	N/A	N/A	N/A	N/A	New EOC construction has begun on a new 19,000 square foot facility at 25 Rocky Hollow Road, across the street from the Volunteer Fire Company building. This project has an estimated cost of $5 to $6 million.	Listed in text (2017 SCCOG Update: North Stonington annex)
New London	SCCOG	Norwich	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	7 total: 2 within 1% flood zone (1 Yantic Fire Co No. 1; 1 Occum FD 1 at least moderate damage and subsequent loss of use	16 Schools (1 within the 1% chance annual flood zone)	Backus Hospital (partially located within the 0.2% chance annual floodplain of Yantic River)	1	1 City Hall/Public Works facility (backup EOC); Public Works HQ; Public Works Fleet Management; Rose City Senior Center	N/A	Norwich Public Utilities (EOC); Water Pollution Control Facility (within 1% annual flood zone)	Yes	N/A	N/A	N/A	N/A	N/A	Listed in text (2017 SCCOG Update: Norwich annex)
New London	SCCOG	Preston	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	2 Fire Stations (1 acts as EOC)	2 Schools	1 Elderly Housing facility	N/A	1 Public Works facility (within 1% annual chance floodplain - wet and dry floodproofing is recommended long-term)	N/A	N/A	Yes	N/A	N/A	N/A	N/A	N/A	Listed in text (2017 SCCOG Update: Preston annex)
New London	SCCOG	Salem	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	2 Volunteer Fire Companies	1 School	N/A	N/A	1 Town Hall/EOC; 1 Public Works Garage	N/A	N/A	Yes	N/A	N/A	N/A	N/A	N/A	Listed in text (2017 SCCOG Update: Salem annex)
New London	SCCOG	Sprague	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	1 Fire Dept (backup EOC)	1 School; 1 Nursery School; 1 Daycare (private home)	1 Senior Living Center	100 year flood event 1 at least moderate damage and subsequent loss of use	1 Town Hall/EOC (contains Public Works Garage) (within 1% annual zone). Short-term recommendation: eliminate basement utility room and long-term recommendation is to wet floodproof all remaining low areas or construct a flood wall.	N/A	Hanover Road Sewer Pumping Station; Water filtration plant; sewer treatment plant; sewer pumping stations and water supply wells (ALL within floodplain)	Yes	N/A	N/A	N/A	N/A	N/A	Listed in text (2017 SCCOG Update: Sprague annex)
New London	SCCOG	Stonington (Borough)	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	1 Fire House/EOC, within the AE (1% annual event flood and surge zones). Long-term recommendation: increase height of floodproofing	N/A	N/A	N/A	1 Borough Hall and Public Works within the AE (1% annual event flood and surge zones). Short-term recommendations: dry floodproof the utility room; long-term recommendations: wet floodproof all remaining lower areas.	N/A	1 Eversource Substation; 1 Water Pollution Control Facility within the AE (1% annual event flood and surge zones)	Yes	N/A	N/A	N/A	N/A	N/A	Listed in text (2017 SCCOG Update: Stonington Borough annex)
New London	SCCOG	Stonington (Town)	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	6 Stations/Departments, 4 of which within hurricane surge zone and 3 of which within the 1% annual chance floodplain, at least moderate damage and subsequent loss of use	2 Schools	Stonington Ambulance; 5 Elderly Housing facilities; 2 Rehab facilities (1 of which within 1% annual chance floodplain and hurricane surge zone)	1 (EOC)	1 Town Hall (backup EOC); Public Works Garage	N/A	1 Water Treatment Plant (within 1% annual chance floodplain); 3 Water Pollution Control Facilities (2 of which within both 1% chance floodplain and hurricane zones)	Yes	N/A	N/A	N/A	N/A	N/A	Listed in text (2017 SCCOG Update: Stonington Town annex)
New London	SCCOG	Waterford	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	5 total fire departments; 1 of which part of the property - not the building - is within 1% flood and hurricane surge zones; another one is within the hurricane surge zone	4 Schools	9 Elderly Housing/Group home facilities (1 of which - a camp - partially, no buildings - within hurricane surge zone; another one fully within hurricane surge zone - now closed)	1 Police Station	1 Town Hall; 1 Public Works (includes Regional Distribution Center); 1 Community Center	N/A	Lake Konomac WTP (within 1% Floodplain); 3 water pumping stations; 6 water tanks; 5 communication towers and 27 sewer pumping stations (some within flood or surge zones)	1 Public Safety Complex	N/A	N/A	N/A	N/A	N/A	Listed in text (2017 SCCOG Update: Waterford annex)
Tolland	CRCOG	Andover	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	1	1 School	N/A	1	Public Works Garage; Transfer Station	N/A	N/A	Yes	N/A	N/A	N/A	N/A	N/A	Map 11 page 200
Tolland	CRCOG	Bolton	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	1	4 Schools	N/A	N/A	N/A	N/A	Municipal Sewer System	Yes	N/A	N/A	N/A	N/A	N/A	Map 17 page 224
Tolland	CRCOG	Ellington	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	3	5 Schools; 1 Preschool of the Arts	N/A	2	Town Hall Complex (including the Annex Building);	Routes 83 and 140; Ellington Airport	7 Pump Stations	Yes	N/A	N/A	1 Library	N/A	Snipsic Village Community Building	Listed in description and Map 27, Page 266
Tolland	CRCOG	Hebron	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	2	4	Chatham Health District	1	Town Hall	Routes 66, 85, 207 and 316	Raymond Brook Marsh Aquifer (Town's most extensive aquifer); sewer treatment plant	Yes	N/A	N/A	N/A	N/A	Hebron Landfill (capped and closed)	Listed in description and Map 39, Page 324
Tolland	CRCOG	Somers	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	1	4	Woodcrest Elderly Housing Facility	1 (Resident State Trooper)	Senior Center; Kibbe Fuller Building (EOC); Town Hall	Routes 183, 186 and 190	Public Water in some areas; 1 Sewer Treatment Plant	Yes	N/A	N/A	N/A	N/A	Osborn and Northern Correctional Facilities	Listed in description and Map 51, Page 373
Tolland	CRCOG	Stafford	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	2	8	Johnson Memorial Hospital; Evergreen Health Center	1	N/A	Routes 30, 32, 190, and 19	Stafford Water Pollution Control Facility	Yes	N/A	N/A	N/A	N/A	TTM (3 locations) utilize various hazardous materials - reported to the Local Emerg. Planning Committee (LEPC)	Listed in description and Map 55, Page 392
Tolland	CRCOG	Tolland	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	1	6	1 Nursing Home; 2 multi-family elderly housing complexes; 1 aged restricted development; 3 Group Homes; Tolland Senior Center	1	Town Hall, Public Works	Interstate 84; State Routes 30, 74 and 195	Two Water Utilities, Public Sewer downtown	Yes	N/A	N/A	N/A	N/A	N/A	Listed in description and Map 59, Page 409
Tolland	CRCOG	Vernon	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	7	10	N/A	1	Town Hall, Public Works	Interstate 84; State Routes 30, 31, 74 and 83	CWC, Public Sewer	Yes	N/A	N/A	N/A	N/A	N/A	Listed in description and Map 61, Page 418
Tolland	CRCOG	Columbia	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	1	6 Schools, 1 Summer Camp	3 elderly facilities	1, RST	N/A	Two high potential loss dams	telephone relay station on Route 66, 2 cell towers; 1 electrical substation	Yes	Defense sub-contractor facility	N/A	N/A	Original Dartmouth College building	7 Group Homes, 1 Hazardous Material Site on Lakeview Park West	N/A	Mentioned in text
Tolland	CRCOG	Coventry	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	4	4	Equine hospital; Elderly housing community	1	N/A	Two high potential loss dams	telephone relay station, WWTP, pump station, wells	Yes	N/A	N/A	N/A	2 historic homes	N/A	N/A	Mentioned in text
Tolland	CRCOG	Mansfield	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	3 (2 volunteer, 1 full-time at UConn)	University of Connecticut and 8 more: two Montessori schools, three elementary schools, one middle school, one (regional) high school, and one school associated with Natchaug Hospital	Psychiatric and substance abuse hospital; elderly concentrations at Juniper Hill and Jensen's Mobile Home Park	1 RST and full-time department at UConn	Yes	Yes	1 telephone facility	Yes	Three shopping areas	Yes	Yes	Six historic districts associated with village centers; historic buildings throughout town	CT State Museum of Natural History; William Benton Museum of Art; Ballard Institute and Museum of Puppetry; numerous other cultural centers	N/A	Mentioned in text

	CRCOG	Willington	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	3 volunteer stations	5 schools (two public and three private nursery schools)	Animal clinic; Senior housing area;	None (patrolled by RST)	Transfer station; Historic Town Hall; Town Office Building; Town Garage	I-84; Route 44 and Route 74 are major trucking routes to Rhode Island	Town-owned water supply to senior housing complex	Yes	Hazardous Materials storage site		Public Library	Historic District	No mobile home parks; 3 churches; 2 campgrounds	
Windham	NECCOG	Ashford	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	2 fire depts; (1 fire station - 100-YR flood event: at least moderate damage) (100-YR hurricane: expected loss of use <1 day)	1 School; (100-YR flood event: none to minor damage) (100-YR hurricane: expected loss of use <1 day)						Yes						Mentioned in Appendix 13 as Critical Facility; Hazus-MH (from previous HMP)
Windham	NECCOG	Brooklyn	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	3 Fire Stations; (100-YR flood event: none to minor damage) (100-YR hurricane: 2 buildings with expected loss of use <1 day)	4 Schools; (100-YR flood event: none to minor damage) (100-YR hurricane: 4 buildings with expected loss of use <1 day)		1 Police Station; (100-YR flood event: none to minor damage) (100-YR hurricane: 1 building with expected loss of use <1 day)				Yes						Mentioned in Appendix 13 as Critical Facility; Hazus-MH (from previous HMP)
Windham	NECCOG	Canterbury	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	1 Fire Station; (100-YR flood event: none to minor damage)	2 Schools; (100-YR flood event: none to minor damage)						Yes						Mentioned in Appendix 13 as Critical Facility; Hazus-MH (from previous HMP)
Windham	NECOG	Chaplin	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	1 volunteer	2 schools	Hampton-Chaplin Ambulance Corps	1, RST	Public Works	two old bridges on important throughfares, one subject to ice jams	2 telephone relay stations; small water systems	Yes	N/A	N/A	Yes	historic district dating to 1700's	30 mobile homes throughout town	Mentioned in text; text from previous HMP
Windham	NECCOG	Eastford	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	1 Fire Station; (100-YR flood event: at least moderate damage, loss of use)	1 School; (100-YR flood event: none to minor damage)						Yes						Mentioned in Appendix 13 as Critical Facility; Hazus-MH (from previous HMP)
Windham	NECOG	Hampton	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	1 fire dept	1 schools	1 ambulance	N/A	Public Works	One old bridge on Route 97 in need of repair	SBC telephone central office on Route 6; primary underground telephone cable from Hartford to Boston	Yes	Potential HazMat site with 40,000 gal propane off Route 6	N/A	N/A	Concentration of historic homes on Main Street (1700's) and throughout town	2 churches which draw a large percentage of town's population to services; Some mobile homes scattered throughout town	Mentioned in text; text from previous HMP
Windham	NECCOG	Killingly	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	6 Fire Stations; (100-YR flood event: 3 buildings with at least moderate damage, 3 buildings with loss of use)	7 Schools; (100-YR flood event: 3 buildings with at least moderate damage, 2 buildings with loss of use)	1 ambulance	2 Police Stations; (100-YR flood event: none to minor damage)	Public Works			Yes					4 Hazardous Materials Facilities	Mentioned in Appendix 13 as Critical Facility; Hazus-MH (from previous HMP)
Windham	NECCOG	Plainfield	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	6 fire stations; (100-YR flood event: none to minor damage)	7 Schools; (100-YR flood event: none to minor damage)	Moosup-Plainfield Ambulance	3 Police Station; (100-YR flood event: none to minor damage)	Public Works			Yes					3 Hazardous Materials Facilities	Mentioned in Appendix 13 as Critical Facility; Hazus-MH (from previous HMP)
Windham	NECCOG	Pomfret	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	3 Fire Station volunteer; (100-YR flood event: none to minor damage) (100-YR hurricane: expected loss of use <1 day)	3 Schools; (100-YR flood event: none to minor damage) (100-YR hurricane event: 2 buildings with expected loss of use <1 day)						Yes						Mentioned in Appendix 13 as Critical Facility; Hazus-MH (from previous HMP)
Windham	NECCOG	Putnam	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	3 Fire Station - (100-YR flood event: at least moderate damage, loss of use) (100-YR hurricane: 1 building with expected loss of use <1 day)	5 Schools; (100-YR flood event: 3 buildings with at least moderate damage, 3 buildings with loss of use) (100-YR hurricane: 6 buildings with expected loss of use <1 day)	1 Hospital; (100-YR flood event: none to minor damage) (100-YR hurricane: none to minor damage)	1 Police Station; (100-YR flood event: at least moderate damage, loss of use) (100-YR hurricane: expected loss of use <1 day)				Yes					1 Hazardous Materials Facility	Mentioned in Appendix 13 as Critical Facility; Hazus-MH (from previous HMP)
Windham	NECOG	Scotland	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	2, volunteer	1, elementary	N/A	N/A	Town Hall/Library	N/A	N/A	Yes	1 large sawmill operation	N/A	Public Library / Town Hall historic)	4 historic sites	manufactured homes on Littlefield Road and in campground off Toleration Road; 3 churches draw large concentrations of people to services	Mentioned in text; text from previous HMP
Windham	NECCOG	Sterling	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	2 Fire Stations; (100-YR flood event: 1 building with at least moderate damage, 1 building with loss of use) (100-YR hurricane: 2 buildings with expected loss of use <1 day)	1 School; (100-YR flood event: none to minor damage) (100-YR hurricane: none to minor damage)		2 Police Station; (100-YR flood event: none to minor damage) (100-YR hurricane: expected loss of use <1 day)				Yes						Mentioned in Appendix 13 as Critical Facility; Hazus-MH (from previous HMP)
Windham	NECCOG	Thompson	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	5 Fire Stations; (100-YR flood event: 1 building with at least moderate damage, 1 building with loss of use) (100-YR hurricane: 3 buildings with expected loss of use <1 day)	5 Schools; (100-YR flood event: 1 building with at least moderate damage, 1 building with loss of use) (100-YR hurricane: 5 buildings with expected loss of use <1 day)		2 Police Station; (100-YR flood event: at least moderate damage, loss of use) (100-YR hurricane: expected loss of use <1 day)				Yes					1 Hazardous Materials Facility	Mentioned in Appendix 13 as Critical Facility; Hazus-MH (from previous HMP)
Tolland	NECCOG	Union	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	1 Fire Station; (100-YR flood event: none to minor damage)	1 School; (100-YR flood event: none to minor damage)						Yes						Mentioned in Appendix 13 as Critical Facility; Hazus-MH (from previous HMP)
New London	NECCOG	Voluntown	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	2, volunteer	1 school	American Ambulance					Yes						Mentioned in text and Appendix 13
Windham	NECCOG	Woodstock	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	3 Fire Stations; (100-YR flood event: 1 building with at least moderate damage, 1 building with loss of use) (100-YR hurricane: 4 buildings with expected loss <1 day)	3 Schools; (100-YR flood event: none to minor damage) (100-YR hurricane: 4 buildings with expected loss of use <1 day)						Yes					1 Hazardous Materials Facility	Mentioned in Appendix 13 as Critical Facility; Hazus-MH (from previous HMP)
Windham	SCCOG	Windham	County-wide critical facility HAZUS-MH data only.	N/A	2017 HMP Update this town's Annex	8: 3 volunteer and one full-time	(15 Schools total): 11 primary and secondary schools; ECSU; Quinebaug Valley Community College branch; 2 private schools	1 Hospital	2: one municipal and one from ECSU	1 Town Hall (EOC); Public Works Headquarters; Windham Senior Center	Windham Airport;	Water Pollution Control Facility; Windham Water Works (Public Water)	Yes	Six hazardous materials sites (7not mentioned in August 2017 HMP - Windham Annex)	N/A	N/A	Several notable historic structures	2 mobile home parks and additional mobile homes scattered through town	Mentioned in text

Land Use & Development

County	RPO	Community or Tribe	Types of Land Use/Development Data Included in Plan (SOURCE)	Areas of (+/-) Growth	Other Relevant information for Land Use & Development
Fairfield	MetroCOG	Bridgeport	2010 US Census Population: 144,229. Land Area of 16 square miles; 22 miles waterfront.	The population peaked in the 1950's, and has steadily declined until the present as a result of suburban growth and the decline of industry in the area. Population increased between 2000 and 2010 by ~ 3% (increased by 4,700).	Future land use in the City of Bridgeport is anticipated to reflect existing land uses, with potential mixed use development on large vacant parcels of land that had previously supported industrial uses.
Fairfield	MetroCOG	Easton	2010 US Census Population: 7,490. Land Area of 28.8 square miles	Population increased between 2000 and 2010 by 218.	Easton is one of the Region's three inland communities. With a land area of 28.8 square miles, the Town consists largely of rolling, hilly terrain. Easton continues to preserve low residential character and ample amounts of public water supply watershed lands. It continues to encourage commercial and service growth in central areas while maintaining to preserve open space.
Fairfield	MetroCOG	Fairfield	2010 US Census Population: 59,404. Land Area of 30.6 square miles	Population increased between 2000 and 2010 by 2,064.	More intense development patterns are concentrated in the eastern and southern areas of the Town, along the New Haven rail line and the I-95 corridors. Major business and industrial areas along US Route 1 and the southern portion of Route 58 (Black Rock Turnpike and Tunxis Hill Road). Northwestern part of town is relatively rural with a concentration of large lot, single family homes. Residential distribution is denser in the eastern portion. Coastal development is primarily residential and includes beaches and private marinas.
Fairfield	MetroCOG	Monroe	2010 US Census Population: 19,479. Land Area of 26.4 square miles	Population increased between 2000 and 2010 by 232.	Predominantly residential, comprised of single family, detached units on 1-3 acre lots. Several condominium complexes provide a higher concentration of housing. Commercial activities concentrated along the Route 25 and Route 111 corridors, industrial parks located along Pepper Street in the northern part of town. Future land use in Monroe is anticipated to be consistent with existing development patterns.
Fairfield	MetroCOG	Stratford	2010 US Census Population: 51,384. Land Area of 19.6 square miles	Population increased between 2000 and 2010 by 1,408.	Predominantly residential; however, there are significant commercial and industrial corridors (Lordship area and near Sikorsky Airport). Future land use plans include transit oriented and mixed use development, as well as light industrial and office park development.
Fairfield	MetroCOG	Trumbull	2010 US Census Population: 36,018. Land Area of 23.3 square miles	Population increased between 2000 and 2010 by 1,772.	Predominantly residential mostly of single-family houses on 0.5-1 acre lots (smaller lots sizes located in the older parts of town). Condo complexes scattered throughout town. Commercial, office and industrial activities are concentrated in large parks with single accesses from main road corridors. Two largest shopping malls in the Region. Future land use is expected to maintain and enhance the existing colonial New England, residential character of the Town with some limited and managed vertical growth in industrial areas.
Fairfield	WestCOG	Bethel	Total Population: 18,584 (2010 US Census) = 1,094 per square mile	US Census 2000 population - 18,067. Increase of 2.9%. CT State Data Center projects 2025 population will decrease to 18,267. 2007 POCD estimates a maximum town population of 23,000 based upon zoning at the time and accounting for undevelopable areas.	8% of land is either developed for specific use (residential, commercial, municipal or industrial) or committed to a specific use (recreation, roads or open space). 45% land use is residential. 17% is open space and land trust. ~20% is vacant or undeveloped. development is historically centered on the village center area in the westcentral area of town and along Interstate 84
Litchfield	WestCOG	Bridgewater	Total Population: 1,727 (2010 US Census) = 109 per square mile	POCD 2012: population has declined 5.3% since the 2000 census. CT State Data Center projects population will slowly rise through 2020, then decline in 2025 to 1,462.	Land use is predominantly residential and open space areas; commercial uses are limited and concentrated in the town center. Consists of steep slopes, rock outcrops and wetlands which severely impact development potential
Fairfield	WestCOG	Brookfield	Total Population: 16,452 (2010 US Census) = 819 per square mile. 2014 POCD: Total Land Area is 13,497.70 acres. 2006 land cover data (from satellite imagery): Development is generally spread throughout the community and not particularly concentrated in any one area. According to this data, about 50% of Brookfield is forested and approximately 26.20% is developed.	The CT State Data Center predicts that population growth in Brookfield will increase over the next twelve years (from 2010). The population in 2025 is projected to be 16,740.	Four Corners" (intersection of Federal Road and Route 25) is expected to continue developing with commercial and residential land uses, and more than 250 units of multi-family housing is approved in this area. Most of the outlying parts of the town will remain at lower residential densities, and subdivisions are typically small
Fairfield	WestCOG	Danbury	Total Population: 80,893 (2010 US Census) = 1,815 per square mile	The city's population saturation point is considered to be 90,000 people, so future expansion along the West Side will likely be the last major residential expansion in the city. C/I development is primarily redevelopment. CT State Data Center predicts a total population of 90,591 by 2025.	The Land Trust of Danbury currently protects 217 acres primarily in the southern part of the city, and an additional 1,381 acres of land has been designated by the City for parks and other recreational use. Other lands are protected by the city as part of water supply watersheds. 2006 land cover data, which was derived from satellite imagery, shows about 45 percent of the city is forested, and one-third of the city's approximate 43.93 square miles is developed.
Fairfield	WestCOG	New Fairfield	Total Population: 13,881 (2010 US Census) = 552 per square mile	Development pace has slowed, mostly residential, near Ball Pond and Candlewood Lake. Projections show minor population growth OR decrease over time.	Many small residential communities with homeowner and residential associations.
Litchfield	WestCOG	New Milford	Total Population: 28,142 (2010 US Census) = 446 per square mile	Tunneing of growth rate expected. Commercial development along route 7 (SFHA), Downtown, rt 202. Residential development scattered, near Candlewood lk.	If Metro North expansion to New Milford is realized, growth is expected to accelerate and to become transit-oriented
Fairfield	WestCOG	Newtown	Total Population: 27,560 (2010 US Census) = 425 per square mile		
Fairfield	WestCOG	Redding	Total Population: 9,158 (2010 US Census) = 276 per square mile	Commercial & mixed-use development in southwest "Georgetown"	
Fairfield	WestCOG	Ridgefield	Total Population: 24,638 (2010 US Census) = 695 per square mile	TOD Redevelopment in Branchville; redevelopment downtown	Focus on redevelopment
Fairfield	WestCOG	Sherman	Total Population: 3,581 (2010 US Census) = 153 per square mile	Growth has more or less stalled. Some developments have been approved but not completed. North of Town and Candlewood Lake are relative development nodes.	Significant amount of private communities
Fairfield	SWestCOG	Darien	Total Population - 20,758; 1,609.1 persons per square mile (US Census Bureau, 2008-2012 American Community Survey, 2016-2021 Update for South Western Region). Land Use is primarily residential across the WestCOG Region.	Transportation remains a substantial issue which contributes to developmental pressure: traffic volumes along I-95, the Merritt, routes 1 and 7 continue to grow; burgeoning movement to expand freight traffic along the railroad corridor continues as increases in congestion persist. Proposed highway and transit projects with the region are expected to generate additional commercial and residential development.	Separation of residential from industrial and commercial uses; growing demand for housing outside of urban areas; concentration of commercial use along major roadways; disconnected street pattern in residential areas with a high number of non-through streets and cul-de-sacs; increased reliance on automobiles
Fairfield	SWestCOG	Greenwich	Total Population - 61,428; 1,285.1 persons per square mile (US Census Bureau, 2008-2012 American Community Survey, 2016-2021 Update for South Western Region). Land Use is primarily residential across the WestCOG Region.	Transportation remains a substantial issue which contributes to developmental pressure: traffic volumes along I-95, the Merritt, routes 1 and 7 continue to grow; burgeoning movement to expand freight traffic along the railroad corridor continues as increases in congestion persist. Proposed highway and transit projects with the region are expected to generate additional commercial and residential development.	Separation of residential from industrial and commercial uses; growing demand for housing outside of urban areas; concentration of commercial use along major roadways; disconnected street pattern in residential areas with a high number of non-through streets and cul-de-sacs; increased reliance on automobiles
Fairfield	SWestCOG	New Canaan	Total Population - 19,794; 895.7 persons per square mile (US Census Bureau, 2008-2012 American Community Survey, 2016-2021 Update for South Western Region). Land Use is primarily residential across the WestCOG Region.	Transportation remains a substantial issue which contributes to developmental pressure: traffic volumes along I-95, the Merritt, routes 1 and 7 continue to grow; burgeoning movement to expand freight traffic along the railroad corridor continues as increases in congestion persist. Proposed highway and transit projects with the region are expected to generate additional commercial and residential development.	Separation of residential from industrial and commercial uses; growing demand for housing outside of urban areas; concentration of commercial use along major roadways; disconnected street pattern in residential areas with a high number of non-through streets and cul-de-sacs; increased reliance on automobiles
Fairfield	SWestCOG	Norwalk	Total Population - 85,853; 3,765.5 persons per square mile (US Census Bureau, 2008-2012 American Community Survey, 2016-2021 Update for South Western Region). Land Use is primarily residential across the WestCOG Region.	Transportation remains a substantial issue which contributes to developmental pressure: traffic volumes along I-95, the Merritt, routes 1 and 7 continue to grow; burgeoning movement to expand freight traffic along the railroad corridor continues as increases in congestion persist. Proposed highway and transit projects with the region are expected to generate additional commercial and residential development.	Separation of residential from industrial and commercial uses; growing demand for housing outside of urban areas; concentration of commercial use along major roadways; disconnected street pattern in residential areas with a high number of non-through streets and cul-de-sacs; increased reliance on automobiles
Fairfield	SWestCOG	Stamford	Total Population - 122,878; 3,259.4 persons per square mile (US Census Bureau, 2008-2012 American Community Survey, 2016-2021 Update for South Western Region). Land Use is primarily residential across the WestCOG Region.	Transportation remains a substantial issue which contributes to developmental pressure: traffic volumes along I-95, the Merritt, routes 1 and 7 continue to grow; burgeoning movement to expand freight traffic along the railroad corridor continues as increases in congestion persist. Proposed highway and transit projects with the region are expected to generate additional commercial and residential development.	Separation of residential from industrial and commercial uses; growing demand for housing outside of urban areas; concentration of commercial use along major roadways; disconnected street pattern in residential areas with a high number of non-through streets and cul-de-sacs; increased reliance on automobiles
Fairfield	SWestCOG	Weston	Total Population - 10,203; 515.3 persons per square mile (US Census Bureau, 2008-2012 American Community Survey, 2016-2021 Update for South Western Region). Land Use is primarily residential across the WestCOG Region.	Transportation remains a substantial issue which contributes to developmental pressure: traffic volumes along I-95, the Merritt, routes 1 and 7 continue to grow; burgeoning movement to expand freight traffic along the railroad corridor continues as increases in congestion persist. Proposed highway and transit projects with the region are expected to generate additional commercial and residential development.	Separation of residential from industrial and commercial uses; growing demand for housing outside of urban areas; concentration of commercial use along major roadways; disconnected street pattern in residential areas with a high number of non-through streets and cul-de-sacs; increased reliance on automobiles
Fairfield	SWestCOG	Westport	Total Population - 26,516; 1,325.8 persons per square mile (US Census Bureau, 2008-2012 American Community Survey, 2016-2021 Update for South Western Region). Land Use is primarily residential across the WestCOG Region.	Transportation remains a substantial issue which contributes to developmental pressure: traffic volumes along I-95, the Merritt, routes 1 and 7 continue to grow; burgeoning movement to expand freight traffic along the railroad corridor continues as increases in congestion persist. Proposed highway and transit projects with the region are expected to generate additional commercial and residential development.	Separation of residential from industrial and commercial uses; growing demand for housing outside of urban areas; concentration of commercial use along major roadways; disconnected street pattern in residential areas with a high number of non-through streets and cul-de-sacs; increased reliance on automobiles
Fairfield	SWestCOG	Wilton	Total Population - 18,201; 1,741.1 persons per square mile (US Census Bureau, 2008-2012 American Community Survey, 2016-2021 Update for South Western Region). Land Use is primarily residential across the WestCOG Region.	Transportation remains a substantial issue which contributes to developmental pressure: traffic volumes along I-95, the Merritt, routes 1 and 7 continue to grow; burgeoning movement to expand freight traffic along the railroad corridor continues as increases in congestion persist. Proposed highway and transit projects with the region are expected to generate additional commercial and residential development.	Separation of residential from industrial and commercial uses; growing demand for housing outside of urban areas; concentration of commercial use along major roadways; disconnected street pattern in residential areas with a high number of non-through streets and cul-de-sacs; increased reliance on automobiles
Hartford	CCRPA	Berlin	From 2000 census: 675 persons per square mile; developed areas increased 24% from 1985-2006, with development primarily occuring on previously undeveloped land	Projected population gain of 15.1% through 2030; population 60 or older expected increase 72% by 2030; significant population increase from 2000 to 2005	Town has more than 1,700 acres of Net Developable Land (land available for development that is not hampered by build-out constraints such as wetlands, floodplains, etc.). Mainly decentralized development.
Hartford	CCRPA	Burlington	Density of 269 persons per square mile; developed areas increased 38% from 1985-2006, with development primarily occuring on previously undeveloped land	Projected (preliminary) population gain of 3.3% through 2030; population 60 or older expected to increase 84% by 2030; significant population increase from 2000 to 2005	Town has more than 3,300 acres of Net Developable Land
Hartford	CCRPA	New Britain	Density of 5,339 persons per square mile; developed areas increased 5% from 1985-2006, while agricultural and forested areas became overwhelmingly barren.	Projected population gain of 9.7% through 2030; population 60 or older expected to increase 28% by 2030	City has less than 300 acres of Net Developable Land; Has 1,200 acres of parks and open space
Hartford	CCRPA	Plainville	1,768 persons per square mile; developed areas increased 16% from 1985-2006, with development primarily occurring on previously undeveloped land and a significant reduction in agricultural land	Projected population loss of 6.1% through 2030; population 60 or older expected to increase 25% by 2030	Town has less than 1,000 acres of Net Developable Land; Town is extremely flat
Hartford	CCRPA	Southington	1,086 persons per square mile; developed areas increased 23% from 1985-2006, with development primarily occuring on previously undeveloped land	Projected population gain of 4.0% through 2030; population 60 or older expected to increase 49% by 2030; significant population increase from 2000 to 2005	Town has over 5,000 acres of Net Developable Land
Hartford	CRCOG	Avon	U.S. Census in 2010: 18,098; 783 persons per square mile (HAZUS-MH, CRCOG Regional HMP Update 2014-2019)	Housing Unit Change 2000-2010: +9.8% (CRCOG Regional HMP Update 2014-2019)	Suburban town; principal industries include insurance, printing, concrete products, poultry processing, reflective tapes, fiber optics, and medical facilities
Hartford	CRCOG	Bloomfield	U.S. Census in 2010: 20,486; 788 persons per square mile (HAZUS-MH, CRCOG Regional HMP Update 2014-2019)	Housing Unit Change 2000-2010: +9.9% (CRCOG Regional HMP Update 2014-2019)	Three MDC reservoirs and two State parks (Penwood and Talcott Mountain). Industries include insurance, aerospace products, specialized tools, electronics, gold and diamond products, diversified industries, and agriculture.
Hartford	CRCOG	Canton	U.S. Census in 2010: 10,292; 418 persons per square mile (HAZUS-MH, CRCOG Regional HMP Update 2014-2019)	Housing Unit Change 2000-2010: +16.6% (CRCOG Regional HMP Update 2014-2019)	Rural town; Major retail developments; Industries include plastic injection modling, small businesses and large commercial retail, restaurants, small farming, art galleries, and antique shops.
Hartford	CRCOG	East Granby	U.S. Census in 2010: 5,148; 294 persons per square mile (HAZUS-MH, CRCOG Regional HMP Update 2014-2019)	Housing Unit Change 2000-2010: +9.8% (CRCOG Regional HMP Update 2014-2019)	Rural town; farming, manufacturing, and quarrying principal industries; Connecticut Air National Guard has a base in town and Bradley International Airport has runway space in town.
Hartford	CRCOG	East Hartford	U.S. Census in 2010: 51,282; 2,847 persons per square mile (HAZUS-MH, CRCOG Regional HMP Update 2014-2019)	Housing Unit Change 2000-2010: +0.1% (CRCOG Regional HMP Update 2014-2019)	Suburban town; many regionally significant transportation routes; Industries include aerospace manufacturing and contractors, warehouse and distribution centers, light industrial, and retail businesses. CNG and the State Dept. of Information Technology maintain critical infrastructure in town. Home to UConn Huskies football, Goodwin College, Cabela's retail store
Hartford	CRCOG	East Windsor	U.S. Census in 2010: 11,162; 424 persons per square mile (HAZUS-MH, CRCOG Regional HMP Update 2014-2019)	Housing Unit Change 2000-2010: +15.0% (CRCOG Regional HMP Update 2014-2019)	Principal industries include agriculture, support system facilities, and manufacture of small tools, paper boxes, electronics, aluminum by-products, farm implements, and fertilizers
Hartford	CRCOG	Enfield	U.S. Census in 2010: 44,654; 1,337 persons per square mile (HAZUS-MH, CRCOG Regional HMP Update 2014-2019)	Housing Unit Change 2000-2010: +1.3% (CRCOG Regional HMP Update 2014-2019)	Several parks; Industries include insurance, manufacture of toys, water filtration systems, specialized machinery, aluminum and magnesium castings, wooden reels for wire and cables, silk screening, games, greeting cards, tolls and gauges, envelopes, laser beam welding, warehouse distribution of toys, clothing and pharmaceuticals, manufacture of electronic assemblies, processing of food and dairy products, ice cream, vegetable and tobacco farming
Hartford	CRCOG	Farmington	U.S. Census in 2010: 25,340; 902 persons per square mile (HAZUS-MH, CRCOG Regional HMP Update 2014-2019)	Housing Unit Change 2000-2010: +7.9% (CRCOG Regional HMP Update 2014-2019)	UConn Health Center / Medical and Dental schools; Industries include national and international corporate facilities, banking, insurance, retail (West Farms Mall), biomedical research and product development, aerospace engineering and products, laser research and production, precisition and specialty manufacturing, manufacture of ball bearing spindles, springs, flow and level switches, fans, metals, and plastics
Hartford	CRCOG	Glastonbury	U.S. Census in 2010: 34,427; 670 persons per square mile (HAZUS-MH, CRCOG Regional HMP Update 2014-2019)	Housing Unit Change 2000-2010: +6.0% (CRCOG Regional HMP Update 2014-2019)	Industries include insurance and financial services, technology and banking, computer services, agriculture, and retail
Hartford	CRCOG	Granby	U.S. Census in 2010: 11,282; 277 persons per square mile (HAZUS-MH, CRCOG Regional HMP Update 2014-2019)	Housing Unit Change 2000-2010: +6.6% (CRCOG Regional HMP Update 2014-2019)	Rural community; significant forested lands owned by State and McLean Game Refuge and Granby Land Trust
Hartford	CRCOG	Hartford	U.S. Census in 2010: 124,775; 7,212 persons per square mile (HAZUS-MH, CRCOG Regional HMP Update 2014-2019)	Housing Unit Change 2000-2010: -5.3% (CRCOG Regional HMP Update 2014-2019)	State Capitol, many State-owned facilities; Brainard Airport; many insurance companies, two major hospitals, Trinity College and Uhart; Convention Center, Expo Center, Bushnell Theater
Hartford	CRCOG	Manchester	U.S. Census in 2010: 58,241; 2,133 persons per square mile (HAZUS-MH, CRCOG Regional HMP Update 2014-2019)	Housing Unit Change 2000-2010: +10.3% (CRCOG Regional HMP Update 2014-2019)	Suburban Town; Largest regional retail concentration in New England at Buckland Hills; Industries include engineered fibers, steel metal fabrication, plastics, machine tool companies, printing, warehouse/distribution facilities, electronic equipment, aircraft and missile components
Hartford	CRCOG	Marlborough	U.S. Census in 2010: 6,404; 275 persons per square mile (HAZUS-MH, CRCOG Regional HMP Update 2014-2019)	Housing Unit Change 2000-2010: +5.8% (CRCOG Regional HMP Update 2014-2019)	Rural town; local businesses are the dominant industry
Hartford	CRCOG	Newington	U.S. Census in 2010: 30,562; 2,315 persons per square mile (HAZUS-MH, CRCOG Regional HMP Update 2014-2019)	Housing Unit Change 2000-2010: +3.4% (CRCOG Regional HMP Update 2014-2019) Hartford-New Britain Busway, New Haven-Springfield commuter rail, and Central CT State University campus likely to spur development	Suburban town; industries include printing and manufacturing of airplane parts, dies, gauges, tools and plumbing supplies; Significant retail development along Berlin Turnpike; Home to Veterans Administration's CT Primary Care Facility, CT DOT, and CT International Skating Center
Hartford	CRCOG	Rocky Hill	U.S. Census in 2010: 19,709; 1,460 persons per square mile (HAZUS-MH, CRCOG Regional HMP Update 2014-2019)	Housing Unit Change 2000-2010: +7.7% (CRCOG Regional HMP Update 2014-2019)	State Veterans Home and Hospital and Dinosaur State Park. Industries include agriculture, castings, bearings, aircraft, and electronics.
Hartford	CRCOG	Simsbury	U.S. Census in 2010: 23,511; 694 persons per square mile (HAZUS-MH, CRCOG Regional HMP Update 2014-2019)	Housing Unit Change 2000-2010: +3.0% (CRCOG Regional HMP Update 2014-2019)	Suburban community; Industries include agriculture, insurance offices, non-electric blast initiation systems, polypropylene fiber manufacturing, and safety and detonating fuse making.
Hartford	CRCOG	South Windsor	U.S. Census in 2010: 25,709; 918 persons per square mile (HAZUS-MH, CRCOG Regional HMP Update 2014-2019)	Housing Unit Change 2000-2010: +9.0% (CRCOG Regional HMP Update 2014-2019)	Suburban community; Major retail developments near Buckland Hills; Industries include commercial and institution food distributors, fuel cell power plants, machine and equipment design and manufacture
Hartford	CRCOG	Suffield	U.S. Census in 2010: 15,735; 373 persons per square mile (HAZUS-MH, CRCOG Regional HMP Update 2014-2019)	Housing Unit Change 2000-2010: +7.7% (CRCOG Regional HMP Update 2014-2019)	Rural community; Industries include agriculture, manufacture of ice cream, gas, small tooks, and warehousing. Part of Bradley International Airport and the North Central Connecticut Correctional facility are also located in Suffield
Hartford	CRCOG	West Hartford	U.S. Census in 2010: 63,268; 2,876 persons per square mile (HAZUS-MH, CRCOG Regional HMP Update 2014-2019)	Housing Unit Change 2000-2010: +2.6% (CRCOG Regional HMP Update 2014-2019) Major land development is approximately 95% completed	Suburban community; Largely residential; Host to UHart, St. Joseph's; University of Connecticut branch (now moved to Hartford); Several reservoirs (and reservoir lands) that supply MDC
Hartford	CRCOG	Wethersfield	U.S. Census in 2010: 26,668; 2,151 persons per square mile (HAZUS-MH, CRCOG Regional HMP Update 2014-2019)	Housing Unit Change 2000-2010: +2.9% (CRCOG Regional HMP Update 2014-2019)	Industries include professional offices, restaurants, marine dock, Kell-Strom, printing, the Hartford Hospital Wellness Center, and several State offices including the Department of Corrections, Labor Department, and Motor Vehicles
Hartford	CRCOG	Windsor	U.S. Census in 2010: 29,044; 981 persons per square mile (HAZUS-MH, CRCOG Regional HMP Update 2014-2019)	Housing Unit Change 2000-2010: +6.6% (CRCOG Regional HMP Update 2014-2019) Rapidly developing C/I on Day Hill Road	Suburban community; Industries include power generation, aerospace, insurance, computer aided design and manufacturing, software development, medical technology, financial services, manufacturing of computer components, electronics, machine tools, adhesives, measuring devices, automotive parts, air movement equipment, and shade grown tobacco
Hartford	CRCOG	Windsor Locks	U.S. Census in 2010: 12,498; 1,389 persons per square mile (HAZUS-MH, CRCOG Regional HMP Update 2014-2019)	Housing Unit Change 2000-2010: +6.5% (CRCOG Regional HMP Update 2014-2019)	Suburban community; Bradley International Airport; Industries include food servicing and distribution, manufacture of aerospace products, paper products, electronics, and machines; Significant number of hotels and related travel services
Hartford	LHCEO	Hartland	Total Population in 2010: 2,114; Total Population in 2015: 2,104. [US Census 2010: 64.02 people/sq mi]	Projected 2025 Total Population: 2,008; Percent Annual Change 2010-2025: -0.34%	See LHCEO regional description below.
New Haven	NVCOG	Ansonia	High-density industrial centers in downtown area; higher density residential and nonresidential land uses situated near the Naugatuck and Housatonic Rivers and the Route 8 corridor; forested areas in northeastern Ansonia; minimal agricultural land use	A few residential and commercial/industrial projects are located in the southeastern portion of Ansonia near the Derby and Woodbridge borders, at the Ansonia-Seymour municipal line, and in the northeast corner of Ansonia. The demolition and rebuild of apartments has been proposed to Ansonia officials at a location within the 500-year flood zone (Zone X) on the west bank of the Naugatuck River	Almost all developable parcels surrounding the Route 8 corridor within the VCOG region have been developed to date
New Haven	NVCOG	Beacon Falls	In 2010, US Census 6,049 - 619 people per square mile (2015 Prospect HMP); population growth in Town from 2000-2006 was 9%	Currently, limited commercial or industrial development has been proposed; however, the town does anticipate growth within the Industrial Park in the next few years	open space preservation is a high priority; (much of Beacon Falls (up to 35%) is protected open space); 2013 draft Plan of Conservation and Development continues to place a priority on the preservation and acquisition of open space in order to maintain the natural resources of the community. To that end, the town recently agreed to buy the back taxes on two properties that have been abandoned. The town will acquire the properties and demolish the existing structures. Since the properties are located in a floodplain they will remain as open space areas.
Litchfield	NVCOG	Bethlehem	In 2010, US Census 3,607 - 186 people per square mile (2015 Prospect HMP); population growth in Town from 2000-2006 was only 5%	According to Bethlehem's Plan of Conservation and Development, population growth in Town is forecast to be only about 1% per year from 2005 to 2020	Bethlehem has almost no development currently ongoing due to the lack of public water & sewer. Most of the soils in Bethlehem provide inadequate processing capacity for large on-site septic systems, making such systems prohibitively expensive.
Hartford	NVCOG	Bristol	Total Population (2010 Census): 60,477 = 2,290 persons per square mile; developed areas increased 17% from 1985-2006, with development primarily occuring on previously undeveloped land	In its most recent iteration of the Plan of Conservation and Development (POCD pending adoption in 2013), the city projects to have an older, but fairly stable population by 2030. Projected population loss of 1.4% through 2030; population 60 or older expected to increase 36% by 2030	The city is relatively built- out, with most recent commercial and industrial development occurring on properties that have previously been developed. A small amount of residential development and redevelopment is also occurring. City has more than 1,700 acres of Net Developable Land
New Haven	NVCOG	Cheshire	In 2010, US Census 29,261 - 889 people per square mile (2014 Cheshire and 2015 Prospect HMPs); population growth 11% from 1990-2000.	Annual population growth of 0.5% was expected from 2000-2010, but the actual was nearly .3%. Efforts being made to preserve it's small town charm, limit impact of future development	The current primary land use objective is the preservation of small town character, small farms and open space. Small farms are viewed as an important component of the local economy, and innovative conservation approaches such as transfer of development rights are being enacted to preserve farmland. It is expected that the northern end of town will remain the location for the concentration of both industrial uses and farmland. The past five years (since 2014), commercial development and redevelopment has continued along Route 10 and several other areas of town. farmland preservation program has been established to retain open space and agriculture
New Haven	NVCOG	Derby	High-density industrial centers in downtown area; higher density residential and nonresidential land uses situated near the Naugatuck and Housatonic Rivers and the Route 8 corridor; sparsely distributed agricultural land; some rural and farmland cover in northwest Derby	Derby is generally built out and lacking space. However, four potential areas of development that are notable aside from local infill are: Main Street redevelopment (vacant land exists on the south side of Main Street), a proposed commerce park between Route 8 and the Naugatuck River, a possible four-lot residential subdivision off Belleview Drive, a potential Industrial/Commercial zoned industrial park off Hine Terrace. The Main Street Redevelopment project and the proposed commerce park both are in central Derby along the Route 8 corridor, located in areas protected by levees and thus in flood zones. The possible subdivision and the potential industrial park are both in eastern Derby near the Orange and Woodbridge municipal lines.	almost all developable parcels surrounding the Route 8 corridor within the VCOG region have been developed to date
New Haven	NVCOG	Middlebury	In 2010, US Census 7,575 - 427 people per square mile (2015 Prospect HMP); 18.4 square miles; population growth 17% from 2000-2010 (2014 Middlebury HMP)	Minor commercial development has recently taken place within the location of the former Timex World Headquarter Complex (business park); efforts are being made to preserve it's rural character, limit the impact of future development through land dedication, acquisition, and conservation programs	Hills and poor soils for septic systems, which together limit large-scale development in much of the Town. Cul-de-sacs in new developments are discouraged and connectivity of roads is encouraged; new developments require underground utilities
New Haven	NVCOG	Naugatuck	In 2010, US Census 31,862 - 16.39 square miles - 1,944 people per square mile (2015 Middlebury HMP); population growth 3% from 2000-2010	The Connecticut Office of Policy and Management estimates population growth in Naugatuck from 2005 to 2020 to be about 7%. According the Connecticut Economic Resource Center, the median sales price of owner-occupied housing in the Borough of Naugatuck in 2010 was $190,500, which is slightly lower than the statewide median sales price of $246,000.	Up to 14% of the land area of Naugatuck is publicly protected open space with an additional 15% being privately held open space. Cul-de-sacs in new developments are discouraged and connectivity of roads is encouraged; The Naugatuck Subdivision Regulations require that utilities serving new developments must be installed underground wherever possible. In the five years since the adoption of the first HMP, residential and commercial development within the Borough has slowed substantially. Many lots have been approved and are on record but construction has not started because the demand has not materialized. Future development is expected to occur at the sprawling Uniroyal industrial property and at the former Peter Paul Company commercial property. These properties are not located within SFHA's.
New Haven	NVCOG	Oxford	In 2010, US Census 12,683 - 386 people per square mile (2015 Prospect HMP, also from July 2014 Oxford HMP Update). 2000-2010 increase: 29.1%. Approximately 7.3% of Oxford is forested and ~15% is developed.	The COGCNV predicts strong population growth for Oxford of approximately nine percent for each five-year period through 2025. many residential developments are planned	A build-out analysis in the 2007 PoCD estimates a maximum town population of 20,004 based on existing zoning and accounting for undevelopable areas. A total of 2,050 residential development lots including 400 building lots that are part of approved subdivisions could be developed. Planners in Oxford and at the COGCNV do not expect this full build-out to occur for several decades. town has grown with expansion of businesses and industries but is still predominately residential. Based on the RLP list, properties along the Housatonic River appear to be at the greatest risk of receiving flood damage. Oxford should continue to pursue home elevations in this area. If property owners are amenable, Oxford should also pursue acquisition of floodprone property in this area with conversion of the property to open space. Finally, Oxford should pursue acquisition of undeveloped land within the Special Flood Hazard Area defined by FEMA in order permanently protect such land from development.
Litchfield	NVCOG	Plymouth	364 persons per square mile; total population in 2010: 12,243 (US Census).	Potential population increase of 7,684 (2015 POCD Update) over the next 40 years	2015 POCD update identifies that 3,438 acres of buildable (unconstrained) land remains in Plymouth
New Haven	NVCOG	Prospect	In 2010, US Census 9,405 - 657 people per square mile (2015 Prospect HMP)	Between 2000 and 2010 growth continued to rise to 8% (2015 Prospect HMP)	In the five years since the adoption of the first HMP, a moderate amount of development has continued in Prospect (2015 Prospect HMP). Cul-de-sacs in new developments are discouraged and connectivity of roads is encouraged; utilities serving new developments must be installed underground

New Haven	**NVCOG**	**Seymour**	High-density industrial centers in downtown area; higher density residential and nonresidential land uses situated near the Naugatuck and Housatonic Rivers and the Route 8 corridor; some rural and farmland cover in southwest Seymour; forested areas in southeast and north; sparsely distributed agricultural land	A few residential and commercial/industrial developments are located in the northeast corner of Seymour, along the Housatonic river in the southwestern portion of town, in the northern part of the downtown section of Seymour west of the Naugatuck River and Route 8, along Route 67 east of downtown, and in the northeastern section of Seymour near the Bethany and Woodbridge town lines.	almost all developable parcels surrounding the Route 8 corridor within the VCOG region have been developed to date
Fairfield	**NVCOG**	**Shelton**	High-density industrial centers in downtown area; higher density residential and nonresidential land uses situated near the Naugatuck and Housatonic Rivers and the Route 8 corridor; western portion of Shelton is predominantly forested; some agricultural land use in northern and southeastern Shelton	A few residential and industrial/commercial projects are located north of Route 8 in the downtown area, in the southern part of the city, and along the Route 8 corridor in south-central Shelton.	almost all developable parcels surrounding the Route 8 corridor within the VCOG region have been developed to date
New Haven	**NVCOG**	**Southbury**	In 2010, US Census 19,904 - 510 people per square mile; 40 square miles total; 39% residential-low density and rest is mixed; growth from 2000 to 2010 was 7.2% (2014 Southbury HMP Update)	ordinance prohibits dwellings from being constructed in floodplain and on steep slopes	revised subdivision regulations state dead-end streets are not allowed; cul-de-sacs are discouraged; several unique land use (Southbury Training School; large IBM campus; Vizada Americas-NASA and very large age-restricted comdo complex, Heritage Village)
Litchfield	**NVCOG**	**Thomaston**	In 2010, US Census 7,887 - 657 people per square mile; an increase from 625 people per square mile in 2000 (2015 Thomaston HMP Update); population growth in Town from 2000-2006 was only 5%	Development in Thomaston since the last plan update has been minimal, in part because of the recent economic downturn. However, several developments are in the process of being approved; some approvals have expired.	Thomaston has 23% protected open space; town personnel indicated that six town owned parcels (approximately 16 acres) in the vicinity of Nystrom Park will be combined and designated as open space by 2016. The town is working toward the establishment of the multi-use greenway trail along the Naugatuck River.
New Haven	**NVCOG**	**Waterbury**	In 2010, US Census 110,366; 28.6 square miles - 3,866 people per square mile (Jan 2015 Waterbury HMP Update), a slight increase from 3,757 individuals per square mile in 2000	Development pressures in Waterbury fell considerably in the years after adoption of the first HMP, coinciding with the economic downturn of 2008-2010. The extreme east end of the City has experienced notable commercial growth in the last five years. In addition, a brownfield property on Mill Street along the Mad River will be redeveloped by the City. expected 0.7% growth expected until 2009	and Use is 40.7%; Residential; 26.8% vacant land and 10.3% Open Space. Other uses (within and under 5%) are commercial, industrial and institutional). In general, the inner city is depopulating although there have been some infill projects. CityWide, many projects have been approved but haven't started construction yet because the demand has not materialized. Decrease impervious cover, increase open space, decrease residential density, increase diversity of uses in commercial districts, limit heavy and high impact industrial development locations, preserve city's historic building stock and neighborhoods through zoning
Litchfield	**NVCOG**	**Watertown**	In 2010, US Census 22,514 - 772 people per square mile, an increase of 3.9% since 2000. 29.6 square miles and 0.4 square mile water (2014 Watertown HMP Update)	COGCNV predicts only moderate population growth for Watertown of three to four percent each five-year period through 2025	About 47% of Watertown is forested and approximately 22% is developed. Highest density of development is in the central and southeastern portion closest to Waterbury. The northern and northeastern portions of Watertown are predominantly forested.
New Haven	**NVCOG**	**Wolcott**	In 2010, US Census 9,975 - 816 people per square mile (2015 Prospect HMP); population growth 10% from 2000-2010.	residential development has slowed in recent years as the available land is characterized by steep topography; limited commercial development has continued along Route 69, and small subdivisions have occurred over the last few years since the initial HMP was adopted	cul-de-sacs discouraged, connectivity to existing roads encouraged;
Litchfield	**NVCOG**	**Woodbury**	In 2010, US Census - 9,975 total population; 274 people per square mile (2014 Woodbury HMP Update); 2000 population 9,198 people	The COGCNV predicts relatively minor population growth for Woodbury of 1.0% to 1.5% for each five-year period through 2025. Expanding as a regional suburb	limited commercial development and almost no industrial development exists in the community. A build-out analysis in the 2010 PoCD estimates a maximum town population of 15,000 based on existing zoning and accounting for undevelopable areas. A total of 6,000 housing units would be needed to support this population, which would likely be realized in 50 years. It is not expected that significant commercial or industrial growth would occur, although the PoCD calls for a slight increase.
Litchfield	LHCEO	**Barkhamsted**	Total Population in 2010: 3,799; Total Population in 2015: 3,881. [US Census 2010: 104.92 people/sq mi]	Projected 2025 Total Population: 3,969; Percent Annual Change 2010-2025: 0.29%	Torrington is an urban center and the Town of Winchester serves as a sub-regional urban center for more suburban communities. Approximately 8.3% of the region consists of federal, state or municipal forest and parkland. An additional 5% of the region consists of privately owned open space reserves. Approx. 4.4% of the region consists of water bodies. Roughly 80% of the region's landscape is undeveloped; much of this land consists of wetlands and steep slopes.
Litchfield		**Colebrook**	Total Population in 2010: 1,485; Total Population in 2015: 1,480. [US Census 2010: 47.16 people/sq mi]	Projected 2025 Total Population: 1,443; Percent Annual Change 2010-2025: -0.19%	
Litchfield		**Goshen**	Total Population in 2010: 2,976; Total Population in 2015: 3,095. [US Census 2010: 68.18 people/sq mi]	Projected 2025 Total Population: 3,241; Percent Annual Change 2010-2025: 0.57%	
Litchfield		**Harwinton**	Total Population in 2010: 5,642; Total Population in 2015: 5,742. [US Census 2010: 183.54 people/sq mi]	Projected 2025 Total Population: 5,787; Percent Annual Change 2010-2025: 0.17%	
Litchfield		**Litchfield**	Total Population in 2010: 8,466; Total Population in 2015: 8,465. [US Census 2010: 151.07 people/sq mi]	Projected 2025 Total Population: 8,293; Percent Annual Change 2010-2025: -0.14%	
Litchfield		**Morris**	Total Population in 2010: 2,338; Total Population in 2015: 2,435. [US Census 2010: 138.92 people/sq mi]	Projected 2025 Total Population: 2,474; Percent Annual Change 2010-2025: 0.24%	
Litchfield		**New Hartford**	Total Population in 2010: 6,970; Total Population in 2015: 7,294. [US Census 2010: 188.28 people/sq mi]	Projected 2025 Total Population: 7,775; Percent Annual Change 2010-2025: 0.73%	
Litchfield		**Norfolk**	Total Population in 2010: 1,709; Total Population in 2015: 1,711. [US Census 2010: 37.73 people/sq mi]	Projected 2025 Total Population: 1,674; Percent Annual Change 2010-2025: -0.14%	
Litchfield		**Torrington**	Total Population in 2010: 36,383; Total Population in 2015: 36,936. [US Census 2010: 914.61 people/sq mi]	Projected 2025 Total Population: 37,683; Percent Annual Change 2010-2025: 0.23%	
Litchfield		**Winchester**	Total Population in 2010: 11,242; Total Population in 2015: 11,503. [US Census 2010: 348.37 people/sq mi]	Projected 2025 Total Population: 11,813; Percent Annual Change 2010-2025: 0.33%	
Litchfield	NWCOG	**Canaan**	1,200 population (Connecticut State Data Center, 2014), approximately 33 square miles	CT State Data Center projects that between 2010 - 2025, the population will stay the same or only grow slightly	Town has 55% as dedicated or managed open space. Limited population growth also due to steep slopes, wetlands and/or floodplains
Litchfield		**Cornwall**	US Census: Pop. in 2010: Total Population 1,420	Projected 2030 Total Population: 1,655; CT State Data Center	
Litchfield		**Kent**	US Census: Pop. in 2010: Total Population 2,979	Projected 2025 Total Population: 2,930; CT State Data Center	
Litchfield		**North Canaan**	US Census: Pop. in 2010: Total Population 3,315	Projected 2025 Total Population: 3,323; CT State Data Center	The Connecticut Economic Resource Center indicates that North Canaan had a 2011 population of 3,329 (slightly higher than the 2010 census count) with a total of 1,646 housing units. The recent economic downturn generally slowed housing development in North Canaan. For example, a golf course and housing development were once proposed for the eastern side of the town but approvals were never finalized and the project was cancelled.
Litchfield		**Roxbury**	US Census: Pop. in 2010: Total Population 2,262	Projected 2025 Total Population: 2,302; CT State Data Center	Roxbury has a great deal of open space throughout the town much of which is controlled by the Roxbury Land Trust
Litchfield		**Salisbury**	US Census: Pop. in 2010: Total Population 3,741	Projected 2025 Total Population: 3,231; CT State Data Center	About 64% of Salisbury is forested, 16% consists of agricultural use and approximately 7.4% is developed
Litchfield		**Sharon**	US Census: Pop. in 2010: Total Population 2,782	Projected 2025 Total Population: 2,376; CT State Data Center	Regarding moderate landslide risk) - The 2006 plan indicates that 12.7% of the total land area in Sharon consists of steep slopes (>25%)
Litchfield		**Warren**	US Census: Pop. in 2010: Total Population 1,461	Projected 2025 Total Population: 1,635; CT State Data Center	Town's 2009 Plan of Conservation and Development (POCD): about 29% of the town is considered "open space." Also, "approximately one third of the town consists of managed or dedicated open space, with residential and agricultural encompassing another third."
Litchfield		**Washington**	US Census: Pop. in 2010: Total Population 3,578	Projected 2025 Total Population: 3,297; CT State Data Center	
Middlesex	**LCRVCOG**	**Chester**	2010 Census: Total Population in 2010: 3,994; a 6.7% increase from 2000. 2000 population: 3,743; 247 people per square mile of land area; Development in town is located primarily east of Route 9 along Pattaconk Brook and in the area surrounding the commercial center. Low-density development exists along most town roads.		Water power for industry led to early population growth and development as industrial villages. Commited open space is 45% of the land area and is a major limitation on future development. 12% of vacant and available land contains soils well suited for development. The core of development is located in the village center.
Middlesex	**LCRVCOG**	**Clinton**	2010 Census: Total Population in 2010: 13,269; a 1.2% increase from 2000. 2000 population: 13,094; 791 people per square mile of land area; Most populated Estuary town; significant portion of the population lives within coastal floodplain particularly during summer. C/I development concentrated along the I-95 and Route 1 corridors, smaller commercial corridor extends northward on Route 80.	Attraction of shore and limited undeveloped usable land has created pressure for conversion of seasonal dwellings to year-round homes. Larger subdivisions north of I-95 with several remaining viable areas for development.	Adopted two-acre zoning north of I-95 but is under appeal. High density in beach areas. Most available land south of I-95 is developed. 10% committed open space/recreation.
Middlesex	**LCRVCOG**	**Cromwell**	State Data Center, UCONN (2010): Total population 2010: 13,497 2000 population: 12,871; 5,365 housing units; 1,038 people per square mile of land area; 4.32 housing units per square mile.	State Data Center, UCONN (2010): Projected population 2025: 13,972.	The Town of Cromwell has 1,472 acres of undeveloped vacant land. Much of this land is located on the east side of the Town along the Connecticut River. Development potential is limited in this area because it is subject to flooding. The Flood Plain District represents 28.6% of the vacant land and 5.7% of the total land mass in Town.
Middlesex	**LCRVCOG**	**Deep River**	2010 Census: Total Population in 2010: 4,629; a 0.41% increase from 2000. 2000 population: 4,610; 346 people per square mile of land area; Low-density development along most town roads. Limited commercial development in the village area and along Route 154.	Population increase noted referencing CT State HMP only. No numbers provided.	Water power for industry led to early population growth and development as industrial villages. Commited open space is 45% of the land area. Commercial use occupies less than 1%. About 59% committed to a specific use, one-third of which is open space (mentioned above), of the remaining two-thirds, half is residential (~19% of land area), and the other is institutional(private school, camp) use at ~11%.
Middlesex	**LCRVCOG**	**Durham**	State Data Center, UCONN (2010): Total projected population 2010: 7,524. 2030: 9,306, currently, (2010), 311 people per square mile. 2000 population: 6,627; 2,349 housing units; 281 people per square mile of land area; 100 housing units per square mile	State Data Center, UCONN (2010): Projected population 2025: 8,878 and in 2030: 9,306. Population expected to increase 40.4% through 2030 (Connecticut State Data Center). Minimal C/I growth potential. Re-use or mixed use possible. Significant drinking water issue on Main Street (to be mitigated by extension of water service from Middletown)	Open space (primarily State-owned) dominates town. Some inconsistencies between local and State PoCD
Middlesex	**LCRVCOG**	**East Haddam**	State Data Center, UCONN (2010): Total population 2010: 9,184. 2000 population: 8,333; 4,015 housing units; 153 people per square mile of land area; 73 housing units per square mile	State Data Center, UCONN (2010): Projected population 2025: 10,165 and in 2030: 10,441. Population expected to increase 25.3% through 2030 (Connecticut State Data Center)	
Middlesex	**LCRVCOG**	**East Hampton**	Census 2010: Total Population in 2010: 12,959. 5,485 Housing Units. 364 people per square mile. 2000 population: 13,352; 4,412 housing units; 375 people per square mile of land area; 124 housing units per square mile	Population increase data not provided	Significant amount of open space
Middlesex	**LCRVCOG**	**Essex**	2010 Census: Total Population in 2010: 6,683; a 2.74% increase from 2000. 2000 population: 6,505; 608 people per square mile of land area; 3 Village Centers of Essex Village (densest development), Centerbrook, and Ivoryton.	Residential subdivisions have been developed west of Route 9, and new commercial and industrial development has been located in Centerbrook.	Less than half the land area in Essex is committed to a specific use: ~8% commited to Open Space; 28% residential; 1.6% commercial; industrial 2.2%; institutional use 2.2%; transportation 6.4%. Water power for industry led to early population growth and development as industrial villages
Middlesex	**LCRVCOG**	**Haddam**	State Data Center, UCONN: Total projected population in 2010: 7,662; projected in 2030: 7,835. 2000 population: 7,157; 2,820 housing units; 163 people per square mile of land area; 64 housing units per square mile	Population expected to increase 9.4% through 2030 (Connecticut State Data Center). Lack of vacant land promotes re-use. Higganum Village District and Tylerville Center-Bridge Street areas are zoned for C/I uses	Lots of open space. Only Town on CT River that is divided by the River. You have to drive through another town to get from one part to the other. Inconsistency between State and local PoCD
Middlesex	**LCRVCOG**	**Killingworth**	2010 Census: Total Population in 2010: 6,525; a 8.4% increase from 2000. 2,598 residences (124 were vacant at the time of the Census-2010). 2000 population: 6,018; 170 people per square mile of land area; Primarily rural, only town in region without a coastal area. Single-family homes are principally located as strip development on large lots along existing roads, especially Route 80 and Route 148.	Continuing economic development in the basins of Pond Meadow Stream and Lane District Brook is expected with pressures leading to intensified flood plain use.	58% of town's land area is currently occupied by residential uses. ~2% commercial and industrial. 4% vacant. 40% designated Open Space: One-third of the land is dedicated to some category of open space; 1/5th is committed open space. Experienced highest growth in region from 1990 to 2000. More than half of land area is committed open space, including State forest and water company land.
New London	**LCRVCOG**	**Lyme**	2010 Census: Total Population in 2010: 2,406; a 19.4% increase from 2000. 1,223 residences. 2000 population: 2,016; 66 people per square mile of land area; Rural community; Historic village concentration areas exist in Hadlyme and Hamburg. Subdivisions often involve clusters of rear lots with long, private access driveways. Densest area of residential housing located at Rodgers Lake, including large proportion of seasonal residents.	Population increase data not provided	83% of the town's land area is undeveloped, with 21% commited as open space. Substantial acreage in the Nehantic State Forest, Selden Neck State Park, and the Nature Conservancy. New lots are minimum of 2 or 3 acres; Most of town is zoned for low-density residential
Middlesex	**LCRVCOG**	**Middlefield**	2010 Census: Total Population in 2010: 4,425; 348 per square mile. 1,863 residences. 2000 population: 4,203; 1,740 housing units; 331 people per square mile of land area; 137 housing units per square mile	Population expected to decrease 0.2% through 2030 (Connecticut State Data Center); Growth area located along Route 66 (State PoCD) and central portion of town (local PoCD). Infill development occuring around Lake Beseck. Industrial Zones more common than commercial zones excepting Route 66 corridor.	Numerous open space acreage around Lake Beseck, Higby Reservoir, Wadsworth Falls State Park, etc. Some inconsistencies between the local and State PoCD
Middlesex	**LCRVCOG**	**Middletown**	2010 Census: Total Population in 2010: 47,648; 1,165 per square mile. 21,223 residences. 2000 population: 43,167; 19,697 housing units; 1,055 people per square mile of land area; 482 housing units per square mile	Population expected to increase 14.0% through 2030 (Connecticut State Data Center)	Middlesex County is the 4th fastest growing county in the State. More than 6,600 building permits issued from 2000-2008. Middletown is the hub of the county with easy access to major highways, airports, railroads, and other modes of transportation.
New London	**LCRVCOG**	**Old Lyme**	2010 Census: Total Population in 2010: 7,603; a 2.66% increase from 2000. 2000 population: 7,406; 304 people per square mile of land area; Historic Village Center near old ferry crossing on CT River; population typically doubles in the summer months. Primary industrial area near I-95 Exit 71. Primary commercial area near Exit 70.	Population increase data not provided Attraction of shore and limited undeveloped usable land has created pressure for conversion of seasonal dwellings to year-round homes. Lack of water and sewer has limited conversion but this work is typically in coastal flood zones. Recent development has included primarily single family homes in subdivisions in previous rural areas.	Seasonal development (32% of overall development) led to the creation of local strip commercial services and a primary commercial area on Halls Road. Extensive tidal marshes along Connecticut River. More than 1,500 acres of committed open space.
Middlesex	**LCRVCOG**	**Old Saybrook**	2010 population: 10,242; 1.2% increase since 2000. 29% of population over age 65, mostly south of Interstate 95 and susceptible to flooding; Most land south of I-95 completely developed. Open space exceeds 20% of the total land area. Approximately 550 structures are renter-occupied. Nearly half of the residential structure value in town in hurricane surge area.	Attraction of shore and limited undeveloped usable land has created pressure for conversion of seasonal dwellings to year-round homes. Lack of water and sewer has limited conversion but this work is typically in coastal flood zones. New and relatively small subdivisions proposed in recent years for new development; redevelopment of commercial and residential properties has dominated.	67.1% - residential; 12.6% commercial and industrial; 3.0% transportation; 20.4% open space; 21.9% vacant. In 2011, the Town made it easier for seasonal properties to convert to year-round use provided winterization, water supply, and septic system requirements are met and no other changes to the structure result. Primary industries include services, trade, and government
Middlesex	**LCRVCOG**	**Portland**	2010 Census: Total Population in 2010: 9,508; 413 per square mile. 4,077 residences. 2000 population: 8,732; 3,528 housing units; 373 people per square mile of land area; 150 housing units per square mile	Population expected to increase 19.3% through 2030 (Connecticut State Data Center) Projected Population in 2030: 10,421	Conviniently located near regional shopping malls, Universities, airports, restaurants, beaches, skiing, sports arenas, Theaters, and the State Capitol. Zone A floodplains are included in local Floodplain Zone which has restrictive regulations including prohibiting new residential development.
Middlesex	**LCRVCOG**	**Westbrook**	2010 Census: Total Population in 2010: 6,962; a 10.3% increase from 2000. 2000 population: 6,292; 398 people per square mile of land area; Densest development (and significant amount of population lives) in coastal floodplain areas. Tremendous density of seasonal beach cottages. C/I development primarily along I-95 and Route 1	Substantial subdivision development north of Interstate 95; Attraction of shore and limited undeveloped usable land has created pressure for conversion of seasonal dwellings to year-round homes. Lack of water and sewer has limited conversion but this work is typically in coastal flood zones.	Preserved open space: 19%; vacant land: 33%. Second only to City of Norwalk for total number of boats in municipal waters. Approximately 15% open space.
New Haven	**SCRCOG**	**Bethany**	US Census Bureau, 2010: 5,563 population (2018 SCRCOG Update)	N/A	Southwest gets isolated & is prone to flooding. In the South Central Region there is a strong connection between transportation and development patterns. Regional growth centers are broadly determined in the State's Plan of Conservation and Development. These growth centers typically involve the utilization of existing developed sites or underutilized sites. South Central Region Council of Governments (SCRCOG) municipalities are continually working to balance development, increased population densities and transportation needs in a way that promotes the Region's broader long-term goals.
New Haven	**SCRCOG**	**Branford**	US Census Bureau, 2010: 28,026 population (2018 SCRCOG Update)	N/A	Concentration of businesses along Commercial St, Rt 139, in north side of town, vulnerable to Branford River flooding In the South Central Region there is a strong connection between transportation and development patterns. Regional growth centers are broadly determined in the State's Plan of Conservation and Development. These growth centers typically involve the utilization of existing developed sites or underutilized sites. South Central Region Council of Governments (SCRCOG) municipalities are continually working to balance development, increased population densities and transportation needs in a way that promotes the Region's broader long-term goals.
New Haven	SCRCOG	East Haven	2,299 people per square mile	projections estimate that the population in East Haven may decrease from 2005 through 2025, and increase between 2025 and 2030	identification of areas capable of supporting economic development is a priority of the Town; many of the areas that are ideal for economic growth have some constraint to development
New Haven	SCRCOG	Guilford	475 people per square mile	projected Town population in 2020 is 23,200	Almost all developable parcels south of I-95 have been developed to date
New Haven	SCRCOG	Hamden	US Census Bureau, 2010: 60,960 population (2018 SCRCOG Update)	N/A	In the South Central Region there is a strong connection between transportation and development patterns. Regional growth centers are broadly determined in the State's Plan of Conservation and Development. These growth centers typically involve the utilization of existing developed sites or underutilized sites. South Central Region Council of Governments (SCRCOG) municipalities are continually working to balance development, increased population densities and transportation needs in a way that promotes the Region's broader long-term goals.
New Haven	**SCRCOG**	**Madison**	US Census Bureau, 2010: 18,269 population (2018 SCRCOG Update)	N/A	In the South Central Region there is a strong connection between transportation and development patterns. Regional growth centers are broadly determined in the State's Plan of Conservation and Development. These growth centers typically involve the utilization of existing developed sites or underutilized sites. South Central Region Council of Governments (SCRCOG) municipalities are continually working to balance development, increased population densities and transportation needs in a way that promotes the Region's broader long-term goals.
New Haven	***SCRCOG***	***Meriden***	Census 2010: 60,868 total; 2,500 per square mile Character: Urban, high density, formerly industrial. High density residential with business & civic located in core Land Use (2007): 28% O.S., 40% Res, 5% comm, 5% insdustrial, 21% institutional	projected 2030 population will be 67,548	Significant redevelopment in Meriden Green area. Development in outlying areas has slowed. The 2009 Plan of Conservation and Development estimated the City had approximately 1,800 acres of residentially zoned buildable land area that could yield an additional 6,000 housing units, and 180 acres of commercially zoned land that could yield approximately 2,000,000 square feet of commercial/industrial development.
New Haven	SCRCOG	Milford		continued development and intensification of new retail and service sector business along the Boston Post Road and in the center of Milford	historically, the retail, medical, and civic land uses have been located in Downtown Milford, but have spread and intensified along the Boston Post Road (Route 1) corridor; Planning and Zoning further regulates growth by imposing height limits and dividing the existing development into various zones
New Haven	SCRCOG	New Haven	6,500 people per square mile	projected municipal population in 2010 is 126,432, a 2.0% increase over the 2000 population	The City Plan Commission's Harbor Plan (2002) emphasizes a balance of economic development, environmental sustainability and cultural enrichment along the waterfront
New Haven	**SCRCOG**	**North Branford**	Demographics (2010 census), geography (multiple sources), transportation network (multiple sources)	N/A	In the South Central Region there is a strong connection between transportation and development patterns. Regional growth centers are broadly determined in the State's Plan of Conservation and Development. These growth centers typically involve the utilization of existing developed sites or underutilized sites. South Central Region Council of Governments (SCRCOG) municipalities are continually working to balance development, increased population densities and transportation needs in a way that promotes the Region's broader long-term goals.
New Haven	**SCRCOG**	**North Haven**	US Census Bureau, 2010: 24,093 population (2018 SCRCOG Update)	N/A	In the South Central Region there is a strong connection between transportation and development patterns. Regional growth centers are broadly determined in the State's Plan of Conservation and Development. These growth centers typically involve the utilization of existing developed sites or underutilized sites. South Central Region Council of Governments (SCRCOG) municipalities are continually working to balance development, increased population densities and transportation needs in a way that promotes the Region's broader long-term goals.
New Haven	**SCRCOG**	**Orange**	US Census Bureau, 2010: 13,956 population (2018 SCRCOG Update)	N/A	In the South Central Region there is a strong connection between transportation and development patterns. Regional growth centers are broadly determined in the State's Plan of Conservation and Development. These growth centers typically involve the utilization of existing developed sites or underutilized sites. South Central Region Council of Governments (SCRCOG) municipalities are continually working to balance development, increased population densities and transportation needs in a way that promotes the Region's broader long-term goals.
New Haven	**SCRCOG**	**Wallingford**	US Census Bureau, 2010: 45,135 population (2018 SCRCOG Update)	N/A	In the South Central Region there is a strong connection between transportation and development patterns. Regional growth centers are broadly determined in the State's Plan of Conservation and Development. These growth centers typically involve the utilization of existing developed sites or underutilized sites. South Central Region Council of Governments (SCRCOG) municipalities are continually working to balance development, increased population densities and transportation needs in a way that promotes the Region's broader long-term goals.
New Haven	***SCRCOG***	***West Haven***	US Census Bureau, 2010: 55,564 population (2018 SCRCOG Update)	N/A	In the South Central Region there is a strong connection between transportation and development patterns. Regional growth centers are broadly determined in the State's Plan of Conservation and Development. These growth centers typically involve the utilization of existing developed sites or underutilized sites. South Central Region Council of Governments (SCRCOG) municipalities are continually working to balance development, increased population densities and transportation needs in a way that promotes the Region's broader long-term goals.
New Haven	SCRCOG	Woodbridge	US Census Bureau, 2010: 8,990 population (2018 SCRCOG Update)	N/A	In the South Central Region there is a strong connection between transportation and development patterns. Regional growth centers are broadly determined in the State's Plan of Conservation and Development. These growth centers typically involve the utilization of existing developed sites or underutilized sites. South Central Region Council of Governments (SCRCOG) municipalities are continually working to balance development, increased population densities and transportation needs in a way that promotes the Region's broader long-term goals.

Capabilities

Local Capabilities	POCD	Zoning and/or Planning Commission & Regulations	Subdivision Regulations	Inland Wetlands Commission	Conservation Commission	Land Trust / Open Space Plan and/or Commission	Harbor Management Commission / Harbor Management Pla	Lake Management Commission	Highway Department / Public Works	Flood and Erosion Control Board	State Building Code	Capital Improvement Plans	Outdoor / Indoor Warning System / Proactive Weather Prog	NOAA Weather Radio or NWS	Designated Storm Shelters	Weather Spotters	Monitor Drought Situation	Public Awareness Campaigns / CERT / Citizen Corp	Tree-trimming from power lines (Done by Utilities in CT)	Equipment for winter storm response	Pre-Planning for Winter Operations	continual maintenance of infrastructure (electrical, lift statio	Emergency Power	Regular dam and culvert inspections and maintenance	Response plan in case of dam failure	Stored Sandbags for flood fighting operations	NFIP / Strict development regulation in flood hazard zones/	Regular training for Emergency Responders	Public safety programs for public and children	Mutual Aid Agreements with other fire departments	Catalogue and Track Hazardous Materials	Equipment to respond to Hazardous Materials Incidents	Fire bans and public water restrictions during dry periods	Increased security, communication, and educational outreach	Stormwater master plan	Regular road maintenance and repair	Emergency Operations Center / Incident Command System	Local Emergency Operations Plans	Digital Infrastructure Mapping	911 Addressing	Hazard Mitigation Interagency Team / Local Emergency Pla	Regional Terrorism Response Plan	Flood Damage Prevention Ordinance	HAZUS	State Hazard Mitigation Plan	Elevation Certificates/Ordinance	Drainage Ordinance	Radio Station Weather Announcements	NIMS Compliant	Fire Mitigation Plan	Contingency Plans	Equipment to handle fire/wildfire	Emergency exercises to test emergency response plans	GIS Data and Mapping
Bethany	X	X	X	X		X						X	X		X			X	X								X			X					X		X	X					X		X								X
Bethel	X	X	X	X					X		X		X	X	X	X		X	X	X	X	X	X	X	X		X	X	X	X						X	X	X			X		X	X	X						X	X	X	
Bethlehem	X	X	X	X	X	X		X	X		X	X		X	X				X	X	X	X	X	X	X		X	X	X	X						X		X			X	X		X			X			X	
Bloomfield	X	X		X					X		X			X					X	X	X			X			X	X		X					X	X		X			X	X	X	X			X	X			X	
Bolton	X	X		X					X		X			X					X	X	X						X	X		X						X		X			X	X	X	X			X	X			X	
Bozrah	X	X	X	X					X		X			X	X				X	X	X	X	X	X	X		X	X		X						X	X	X		X	X	X	X	X			X			X	X	
Branford	X	X	X			X						X	X					X	X		X					X			X					X	X	X	X					X		X								X
Bridgeport	X	X	X	X	X				X		X			X	X				X	X	X	X	X	X	X		X	X	X							X	X	X	X		X		X		X			X			X	X	X	
Bridgewater	X	X	X	X					X		X			X	X	X	X		X	X	X	X	X	X	X		X		X	X					X	X	X	X			X		X		X		X	X			X			
Bristol	X	X	X		X				X	X	X	X	X	X	X	X		X	X	X	X		X	X	X		X	X	X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X
Brookfield	X	X	X	X	X	X			X	X	X	X		X	X				X	X	X	X	X				X		X	X					X	X	X	X			X		X		X		X	X				X		
Brooklyn	X	X	X	X					X		X	X		X					X	X	X	X		X			X									X	X	X			X		X		X			X				X		X
Burlington	X	X									X				X			X	X	X		X				X	X		X						X		X		X		X	X	X	X			X				X		
Canaan	X	X	X	X	X	X			X	X	X			X	X				X	X	X	X	X	X	X		X	X		X					X	X	X	X		X			X	X	X		X							
Canterbury	X	X	X	X					X		X	X		X					X	X	X	X		X			X									X	X	X			X		X		X			X				X		X
Canton	X	X		X					X		X			X					X	X	X	X					X	X		X						X		X			X	X	X	X			X	X			X		
Chaplin	X	X	X	X							X	X		X					X	X	X			X			X	X							X		X		X		X	X		X			X			X	X	X
Cheshire	X	X	X	X	X				X	X	X	X		X	X				X	X	X	X	X	X	X		X	X	X	X					X	X		X			X	X		X			X			X		
Chester	X	X							X	X	X		X	X				X	X	X	X		X	X		X	X					X	X	X	X	X					X	X	X	X		X	X					X	X	X
Clinton	X	X							X		X		X	X			X	X	X	X			X			X	X		X				X	X	X	X	X				X	X	X	X	X	X	X				X	X	
Colchester	X	X	X	X	X	X			X		X			X	X				X	X	X	X	X	X			X	X		X						X	X	X		X		X	X	X	X			X				X	X	
Colebrook	X	X	X	X					X		X			X	X				X	X	X	X	X	X			X	X		X					X	X	X	X			X		X		X		X	X				X	X	
Columbia	X	X			X				X		X	X		X			X		X	X	X			X			X	X								X		X			X	X		X			X				X	X	
Cornwall	X	X	X	X	X	X			X	X	X			X	X				X	X	X	X	X	X	X		X	X		X					X	X	X	X		X			X		X		X							
Coventry	X	X			X				X	X	X	X		X			X		X	X	X			X			X	X								X		X			X	X		X			X				X	X	
Cromwell	X	X		X					X		X		X	X	X			X	X	X	X	X		X			X	X	X	X						X	X	X		X		X	X	X	X			X		X		X	X	
Danbury	X	X	X	X	X	X			X	X	X	X	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X				X	X	X
Darien	X	X	X	X		X			X	X	X		X	X	X			X	X	X	X	X		X			X	X	X						X	X	X	X	X	X	X		X	X	X	X		X				X	X	
Deep River	X	X	X	X	X				X		X	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X		X				X		X	X	X		X	X	X	X	X	X	X	X	X				X		X
Derby	X	X	X	X					X		X			X	X		X		X	X	X	X	X	X		X	X						X			X	X	X			X		X	X	X			X				X		
Durham	X	X	X	X					X		X	X	X	X	X			X	X	X	X			X			X	X	X	X						X	X	X		X		X	X	X	X			X		X		X	X	
East Granby	X	X			X				X		X			X					X	X	X						X	X		X					X	X		X		X		X	X	X	X			X	X			X		
East Haddam	X	X							X		X		X	X	X			X	X	X	X			X			X	X	X	X						X	X	X		X		X	X	X	X			X		X		X	X	
East Hampton	X	X	X	X		X			X		X		X	X	X			X	X	X	X			X			X	X	X	X						X	X	X		X		X	X	X	X			X		X		X	X	
East Hartford	X	X		X					X		X	X		X					X	X	X	X		X			X	X		X					X	X		X			X	X	X	X			X	X			X	X	
East Haven	X	X	X	X	X	X			X	X	X	X	X	X	X			X	X	X	X	X	X	X			X	X	X	X						X	X	X			X	X	X	X	X	X		X				X	X	
East Lyme	X	X	X	X	X	X	X		X		X			X	X				X	X	X	X	X	X			X	X		X						X	X	X		X		X	X	X	X			X				X	X	
East Windsor	X	X		X					X		X			X					X	X	X						X	X		X						X		X		X		X	X	X	X			X	X			X		
Eastford	X	X	X	X					X		X	X		X					X	X	X	X						X								X	X	X			X		X		X			X				X		X
Easton	X	X	X	X	X				X		X			X	X				X	X	X	X	X	X	X		X	X	X							X		X			X		X		X			X				X		
Ellington	X	X		X					X		X			X					X	X	X			X			X	X		X						X		X			X	X	X	X			X	X			X		
Enfield	X	X		X	X				X	X	X	X	X	X					X	X	X	X	X	X			X	X	X	X				X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				X	X	X
Essex	X	X	X	X		X	X		X		X	X	X	X					X	X	X		X	X			X	X				X	X		X	X	X		X	X	X	X	X	X		X	X				X	X	X
Fairfield	X	X	X	X	X				X		X			X	X			X	X	X	X	X	X	X	X	X	X	X	X						X	X	X	X			X		X		X			X				X		X
Farmington	X	X		X					X	X	X			X	X			X	X	X	X	X	X	X		X	X	X	X						X	X	X	X			X	X	X	X	X		X	X			X	X	X
Franklin	X	X	X	X	X	X			X		X			X	X				X	X	X	X	X	X			X	X		X						X	X	X		X		X	X	X	X			X				X	X	
Glastonbury	X	X		X	X				X		X			X					X	X	X		X				X	X		X						X		X		X		X	X	X	X	X		X	X			X	X	X
Goshen	X	X	X	X					X		X			X	X				X	X	X	X	X	X			X	X		X					X	X	X	X			X		X		X		X	X				X		
Granby	X	X		X					X	X	X	X	X	X	X			X	X	X	X		X				X	X	X	X					X	X	X	X		X	X	X	X	X	X			X	X	X		X		
Greenwich	X	X	X	X	X	X			X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X		X	X	X	X	X	X	X		X	X	X	X		X				X	X	X
Griswold	X	X	X	X	X	X			X		X			X	X				X	X	X	X	X	X		X	X	X		X						X	X	X			X	X	X	X			X				X	X	
Groton (City)	X	X	X	X	X		X		X		X			X	X				X	X	X	X	X	X			X	X		X						X	X	X		X		X	X	X	X			X				X	X	
Groton (Town)	X	X	X	X	X	X	X		X		X			X	X				X	X	X	X	X	X			X	X		X						X	X	X		X		X	X	X	X			X				X	X	
Guilford	X	X	X	X	X	X	X	X	X	X	X	X			X			X	X	X	X	X	X	X			X	X	X	X						X	X	X			X	X	X	X	X	X		X		X		X	X	
Haddam	X	X							X		X		X	X	X			X	X	X	X			X			X	X	X	X						X	X	X				X	X	X	X			X		X		X	X	
Hamden	X	X	X			X						X	X		X			X	X		X					X			X					X	X		X					X		X							X		X
Hampton	X	X		X					X		X	X		X					X	X	X			X			X	X								X		X			X	X		X			X				X	X	
Hartford	X	X							X		X	X	X						X	X	X	X		X			X	X	X	X					X	X	X	X		X		X	X	X	X			X	X			X	X	
Hartland	X	X	X	X					X		X			X	X				X	X	X	X	X	X			X	X		X					X	X	X	X			X		X		X		X	X				X		
Harwinton	X	X	X	X					X		X			X	X				X	X	X	X	X	X			X	X		X					X	X	X	X			X		X		X		X	X				X		
Hebron	X	X		X	X	X		X	X		X								X	X	X			X			X	X		X						X		X			X	X	X	X			X	X	X		X		
Kent	X	X	X	X	X	X			X	X	X			X	X				X	X	X	X	X	X	X		X	X		X					X	X	X	X		X			X	X	X		X							
Killingly	X	X	X	X					X		X	X		X					X	X	X	X		X			X									X	X	X			X		X		X			X				X		X
Killingworth	X	X	X	X					X		X	X	X	X					X	X	X	X	X	X			X	X		X				X		X	X	X			X	X	X	X			X				X	X	
Lebanon	X	X	X	X					X	X	X	X		X	X					X							X									X	X	X					X	X	X										
Ledyard	X	X	X	X	X				X		X			X	X				X	X	X		X	X			X	X		X						X	X	X		X		X	X	X	X		X	X				X	X	
Lisbon	X	X	X	X	X				X		X			X	X				X	X	X		X	X			X	X		X						X	X	X		X		X	X	X	X			X				X	X	
Litchfield	X	X	X	X					X		X			X					X	X	X	X		X			X									X	X	X			X		X		X			X				X		X
Lyme	X	X	X	X	X	X			X		X	X	X	X	X			X	X	X	X	X	X	X			X	X					X		X		X		X		X	X	X	X	X		X				X	X	X
Madison	X	X	X			X						X	X		X			X	X		X					X			X					X	X		X					X		X								X
Manchester	X	X		X					X		X	X		X	X				X	X	X	X		X	X		X	X	X	X						X	X	X	X			X	X	X	X			X	X			X	X	X
Mansfield	X	X									X	X							X	X	X			X			X	X								X		X			X	X		X			X				X	X	
Marlborough	X	X			X				X		X			X	X				X	X	X						X	X		X						X	X	X			X	X	X	X			X	X			X		
Mashantucket Pequot Tribal Nation	X	X							X		X	X		X	X				X	X	X	X	X	X			X	X	X	X						X	X	X		X		X	X	X	X			X				X	X	
Meriden	X	X	X	X					X	X	X	X		X	X				X	X	X	X	X	X	X		X	X	X	X						X	X	X		X		X	X	X	X			X				X		
Middlebury	X	X	X	X	X	X			X		X	X		X	X				X	X	X	X	X	X			X	X	X	X					X	X		X		X		X	X		X	X	X	X		X		X		
Middlefield	X	X	X	X		X			X		X	X	X	X	X			X	X	X	X			X			X	X	X	X						X	X	X			X	X	X	X			X		X		X	X	
Middletown	X	X	X	X		X			X		X	X	X	X	X			X	X	X	X		X	X		X	X	X	X	X						X	X	X		X		X	X	X	X			X		X		X	X	
Milford	X	X	X	X	X	X			X		X		X	X	X				X	X	X	X	X	X			X	X								X	X	X		X		X	X		X			X				X	X	X
Mohegan Tribe	X	X							X		X	X		X	X				X	X	X	X	X	X			X	X	X	X						X	X	X					X	X	X			X				X	X	X
Monroe	X	X	X	X	X				X		X			X	X			X	X	X	X	X	X	X		X	X	X							X		X			X		X		X		X	X				X	X	X
Montville	X	X	X	X					X		X			X	X				X	X	X	X	X	X			X	X		X						X	X	X		X	X	X	X	X	X			X				X	X	
Morris	X	X	X	X					X		X			X	X				X	X	X	X	X	X			X	X		X					X	X	X	X			X		X		X		X	X				X		
Naugatuck	X	X	X	X	X				X		X	X		X	X			X	X	X	X	X		X			X	X	X	X						X		X		X		X	X		X			X				X		
New Britain	X	X									X	X							X	X	X	X		X	X		X	X		X						X		X			X	X	X	X			X				X		
New Canaan	X	X	X	X	X	X			X	X	X		X	X	X				X	X	X	X		X			X	X	X							X		X		X	X		X	X	X	X		X				X		
New Fairfield	X	X	X	X	X	X			X	X	X	X	X	X	X		X		X	X	X		X	X	X		X	X		X			X			X	X	X		X		X	X	X	X		X	X				X		

New Hartford	X	X	X	X					X		X			X	X				X	X	X	X	X	X			X	X		X					X	X	X	X			X		X		X		X	X				X		
New Haven	X	X	X	X	X	X	X		X		X	X		X	X				X	X	X	X	X	X			X	X		X						X	X	X		X		X	X	X	X		X	X			X	X	X	
New London	X	X	X	X			X		X		X			X	X				X	X	X	X	X	X			X	X		X						X	X	X		X		X	X	X	X			X				X	X	
New Milford	X	X	X	X		X			X		X	X	X	X	X		X		X	X	X	X	X	X	X		X	X		X			X			X	X	X			X		X	X	X		X	X				X	X	
Newington	X	X		X	X				X		X	X		X				X	X	X	X	X		X			X	X		X					X	X		X				X	X	X	X			X	X			X		
Newtown	X	X	X	X	X	X			X		X	X	X	X	X				X	X	X	X	X	X			X	X		X			X			X	X	X					X	X	X							X	X	
Norfolk	X	X	X	X					X		X			X	X				X	X	X	X	X	X			X	X		X					X	X	X	X			X		X		X		X	X				X		
North Branford	X	X	X			X						X	X		X				X			X					X			X					X	X	X	X					X	X	X									X
North Canaan	X	X	X	X	X	X			X	X	X			X	X				X	X	X	X	X	X	X		X	X		X					X	X	X	X		X			X	X	X		X							
North Haven	X	X	X									X	X		X				X			X					X			X					X	X	X	X					X	X	X									X
North Stonington	X	X	X	X	X	X			X		X			X	X				X	X	X		X	X			X	X		X						X	X	X		X		X	X	X	X			X				X	X	X
Norwalk	X	X	X	X		X			X	X	X		X	X				X	X	X	X	X		X			X	X	X							X	X	X		X	X		X	X	X	X		X	X			X	X	X
Norwich	X	X	X	X	X	X	X		X		X	X		X	X				X	X	X	X	X	X	X		X	X		X						X	X	X		X		X	X	X	X			X				X	X	
Old Lyme	X	X	X	X	X		X		X	X	X	X	X	X	X				X	X	X		X	X			X	X						X		X	X	X			X	X	X	X	X		X	X		X		X	X	X
Old Saybrook	X	X	X	X	X	X			X	X	X	X	X	X	X		X		X	X	X	X	X	X			X	X						X	X	X	X	X				X	X	X	X	X		X				X	X	X
Orange	X	X	X			X						X	X					X	X			X					X			X					X	X		X					X	X	X									
Oxford	X	X	X		X	X			X		X	X		X	X				X	X	X	X		X			X	X	X							X	X	X					X		X			X				X		
Plainfield	X	X	X	X					X		X	X		X					X	X	X	X		X			X									X	X	X			X		X		X			X				X		X
Plainville	X	X									X		X		X	X			X	X	X	X		X			X	X		X					X	X		X		X		X	X	X	X	X	X	X				X	X	
Plymouth	X	X	X	X					X		X			X	X				X	X	X	X	X	X	X	X	X	X	X	X						X	X	X					X	X	X			X	X			X	X	X
Pomfret	X	X	X	X					X		X	X		X					X	X	X	X		X			X									X	X	X			X		X		X			X				X		X
Portland	X	X							X		X		X	X	X			X	X	X	X			X			X	X	X	X						X	X	X				X	X	X	X			X		X		X	X	
Preston	X	X	X	X	X		X		X		X			X	X				X	X	X		X	X			X	X		X						X	X	X		X		X	X	X	X			X				X	X	
Prospect	X	X	X	X	X				X		X	X		X	X				X	X	X	X	X	X	X	X	X	X	X	X					X	X	X	X				X	X	X	X			X				X	X	
Putnam	X	X	X	X					X		X	X		X					X	X	X	X		X			X									X	X	X			X		X		X			X				X		X
Redding	X	X	X	X	X	X			X		X	X	X	X	X				X	X	X	X	X				X	X		X					X	X		X					X	X	X									
Ridgefield	X	X	X	X	X				X		X	X	X	X	X				X	X	X	X	X				X	X		X						X		X					X	X	X									
Rocky Hill	X	X			X	X			X		X			X	X				X	X	X						X	X		X					X	X		X				X	X	X	X			X	X			X		
Roxbury	X	X	X		X	X			X		X			X	X				X	X	X	X	X	X	X		X	X							X	X	X	X					X	X	X							X	X	
Salem	X	X	X	X					X		X			X	X				X	X	X		X	X			X	X		X						X	X	X				X	X	X	X			X				X	X	
Salisbury	X	X	X		X	X			X		X			X	X				X	X	X	X	X	X	X		X	X							X	X	X	X					X	X	X							X	X	
Scotland	X	X	X	X							X	X		X					X	X	X			X			X	X								X		X				X	X		X			X				X	X	
Seymour	X	X	X	X					X		X			X	X		X		X	X	X	X	X	X		X	X						X			X	X	X			X		X	X	X			X				X		
Sharon	X	X	X	X					X	X	X		X	X	X				X	X	X	X	X	X			X	X		X						X	X	X		X	X		X	X	X					X		X		
Shelton	X	X	X	X					X		X			X	X		X		X	X	X	X	X	X		X	X						X			X	X	X			X		X	X	X			X				X		
Sherman	X	X	X	X	X	X			X	X	X			X	X				X	X	X		X	X	X		X	X	X	X						X	X	X				X	X	X	X			X				X	X	
Simsbury	X	X		X	X				X		X			X				X	X	X	X						X	X	X	X						X		X				X	X	X	X		X	X	X			X		
Somers	X	X			X				X		X			X	X				X	X	X						X	X		X						X		X				X	X	X	X			X	X	X		X		
South Windsor	X	X		X	X				X		X			X					X	X	X			X			X	X		X						X		X				X	X	X	X			X	X			X		
Southbury	X	X	X	X	X			X	X		X	X		X	X		X		X	X	X	X	X	X		X	X	X	X	X						X	X	X		X	X	X	X	X	X			X				X		
Southington	X	X							X		X				X		X		X	X	X	X					X	X		X						X		X				X	X	X	X			X				X	X	
Sprague	X	X	X	X					X		X		X	X	X				X	X	X	X	X	X			X	X		X						X	X	X				X	X	X	X			X				X	X	
Stafford	X	X		X					X		X			X						X							X																X	X	X									
Stamford	X	X	X	X	X	X			X	X	X		X	X	X		X	X	X	X	X	X		X			X	X	X				X		X	X	X	X	X	X	X		X		X	X	X	X				X	X	X
Sterling	X	X	X	X					X		X	X		X					X	X	X	X		X			X									X	X	X			X		X		X			X				X		X
Stonington (Borough)	X	X		X			X		X		X			X					X	X	X	X	X	X			X	X		X						X	X	X		X		X	X	X	X			X				X	X	
Stonington (Town)	X	X	X	X	X	X	X		X		X			X	X				X	X	X	X	X	X			X	X		X						X	X	X		X		X	X	X	X			X				X	X	
Stratford	X	X	X	X	X				X		X			X	X			X	X	X	X	X	X	X	X		X	X	X					X		X	X	X			X		X		X		X	X				X		X
Suffield	X	X			X				X		X			X					X	X	X						X	X		X						X		X				X	X	X	X			X	X			X		
Thomaston	X	X	X	X	X	X			X	X	X	X		X	X				X	X	X	X	X	X	X		X	X	X	X						X		X		X		X	X		X			X		X		X		
Thompson	X	X	X	X					X		X	X		X					X	X	X	X		X			X									X	X	X			X		X		X			X				X		X
Tolland	X	X		X					X		X			X					X	X	X	X		X			X	X		X						X		X				X	X	X	X			X	X	X		X		
Torrington	X	X	X	X					X		X			X	X				X	X	X	X	X	X			X	X		X					X	X	X	X			X		X		X		X	X				X		
Trumbull	X	X	X	X	X				X		X			X	X			X	X	X	X	X	X	X	X		X	X	X	X					X	X	X	X			X		X		X		X	X				X		
Union	X	X	X	X					X		X	X		X					X	X	X	X		X			X									X	X	X			X		X		X			X				X		X
Vernon	X	X		X					X		X	X	X		X	X			X	X	X	X				X	X	X		X				X		X	X	X				X	X	X	X			X	X	X		X		X
Voluntown	X	X	X	X					X		X	X		X	X				X	X	X		X	X			X	X		X						X	X	X		X		X	X	X	X			X				X	X	
Wallingford	X	X	X									X	X		X			X	X			X					X			X					X	X	X	X					X		X									
Warren	X	X	X	X		X		X	X	X	X			X	X			X	X	X	X	X	X	X	X		X	X	X	X					X	X	X	X		X	X		X	X	X		X			X		X		
Washington	X	X	X	X	X	X			X		X		X	X	X				X	X	X	X	X	X			X	X	X								X	X		X	X		X		X			X					X	
Waterbury	X	X	X	X					X		X	X		X	X	X			X	X	X	X	X	X		X	X	X	X	X						X	X	X				X	X	X	X			X				X		X
Waterford	X	X	X	X	X				X	X	X			X	X				X	X	X		X	X			X	X		X						X	X	X		X	X	X	X	X	X			X				X	X	X
Watertown	X	X	X		X	X			X	X	X	X	X	X	X				X	X	X	X	X	X			X	X		X					X	X	X	X					X	X	X			X				X		X
West Hartford	X	X		X					X	X	X	X		X	X				X	X	X	X	X				X	X	X	X					X	X	X	X				X	X	X	X			X	X			X	X	X
West Haven	X	X	X			X						X	X		X			X	X			X					X			X					X	X		X					X		X									X
Westbrook	X	X	X	X	X		X		X	X	X	X	X	X	X				X	X	X	X		X			X	X						X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X
Weston	X	X	X	X	X	X			X	X	X		X	X	X			X	X	X	X	X	X	X	X		X	X	X				X			X	X	X	X	X	X		X	X	X	X	X	X				X	X	X
Westport	X	X	X	X	X	X			X	X	X		X	X	X			X	X	X	X	X	X			X	X	X	X	X			X			X	X	X	X	X	X		X	X	X	X		X				X	X	
Wethersfield	X	X		X					X		X	X		X					X	X	X	X					X	X		X					X	X		X				X	X	X	X			X	X			X		
Willington	X	X		X	X	X			X	X	X			X					X	X	X			X			X	X								X		X				X	X		X			X				X	X	
Wilton	X	X	X	X	X	X			X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X		X	X	X	X			X			X	X	X	X	X	X		X		X	X		X				X	X	
Winchester	X	X	X	X					X		X			X	X				X	X	X	X	X	X			X	X	X	X					X	X	X	X			X		X		X		X	X				X		
Windham	X	X		X					X		X		X	X	X				X	X	X	X	X	X	X		X	X	X	X						X	X	X		X	X		X	X	X			X				X	X	
Windsor	X	X		X					X		X			X	X				X	X	X						X	X		X					X	X	X	X				X	X	X	X			X	X			X		
Windsor Locks	X	X		X					X		X	X		X					X	X	X						X	X		X						X		X				X	X	X	X			X	X			X		
Wolcott	X	X	X	X		X		X	X		X	X		X	X			X	X	X	X	X	X	X	X	X	X	X	X	X						X	X	X			X	X	X	X	X			X				X	X	
Woodbridge	X	X	X			X			X		X	X	X	X					X	X		X					X			X					X	X	X	X					X	X	X									X
Woodbury	X	X	X	X	X	X			X		X			X	X				X	X	X			X			X	X		X					X	X		X					X		X			X				X		X
Woodstock	X	X	X	X					X		X	X		X					X	X	X	X		X			X									X	X	X			X		X		X			X				X		X
Total Communities	**173**	**173**	**123**	**138**	**74**	**60**	**13**	**6**	**158**	**37**	**164**	**79**	**57**	**154**	**122**	**7**	**16**	**41**	**171**	**164**	**161**	**120**	**97**	**136**	**39**	**17**	**173**	**142**	**56**	**126**	**2**	**2**	**13**	**14**	**58**	**170**	**124**	**172**	**12**	**64**	**63**	**98**	**173**	**116**	**173**	**22**	**39**	**149**	**32**	**19**	**3**	**155**	**84**	**53**

Capability Assessment

Some plans provide details on their capability to implement mitigation strategies. If the plan has a capability assessment section please indicate what types of capabilities they have, and indicate the general category with an (X).

			Capability Assessment							
County	RPO	Community or Tribe	Grant Match	Local Funding	Technical Assistance	Education/ Outreach	Citizen Corp	National Flood Insurance Program	NFIP Community Rating System	Notes
Fairfield	MetroCOG	Bridgeport	X	X	X	X		X	Recommended	
Fairfield	MetroCOG	Easton	X	X	X	X		X	Recommended	
Fairfield	MetroCOG	Fairfield	X	X	X	X		X	Recommended	
Fairfield	MetroCOG	Monroe	X	X	X	X		X	Recommended	
Fairfield	MetroCOG	Stratford	X	X	X	X		X	Recommended	
Fairfield	MetroCOG	Trumbull	X	X	X	X		X	Recommended	
Fairfield	WestCOG	Bethel	X	X	X	X		X	Not recommended for Bethel	
Litchfield	WestCOG	Bridgewater	X	X	X	X		X	Not recommended for Bridgewater	
Fairfield	WestCOG	Brookfield	X	X	X	X		X	Enrolling is recommended	
Fairfield	WestCOG	Danbury	X	X	X	X		X	Joining CRS Recommended	
Fairfield	WestCOG	New Fairfield	X	X	X	X		X	no	
Litchfield	WestCOG	New Milford	X	X	X	X		X	no	
Fairfield	WestCOG	Newtown	X	X	X	X		X	Class 9	10 ft freeboard commercial, 4 ft residential
Fairfield	WestCOG	Redding	X	X	X	X		X	no	
Fairfield	WestCOG	Ridgefield	X	X	X	X		X	no	
Fairfield	WestCOG	Sherman	X		X	X		X		
Fairfield	SWestCOG	Darien	X	X	X	X	X - Advisory Committee to prepare the plan, Weston has a local Emergency Planning Committee	X		
Fairfield	SWestCOG	Greenwich	X	X	X	X		X		
Fairfield	SWestCOG	New Canaan	X	X	X	X		X		
Fairfield	SWestCOG	Norwalk	X	X	X	X		X	X	
Fairfield	SWestCOG	Stamford	X	X	X	X		X	X	
Fairfield	SWestCOG	Weston	X	X	X	X		X		
Fairfield	SWestCOG	Westport	X	X	X	X		X	X	
Fairfield	SWestCOG	Wilton	X	X	X	X		X		
Hartford	CCRPA	Burlington	X	X	X	X		X	community ID 090145#	No formal capability assessment section
Hartford	CCRPA	New Britain	X	X	X	X		X	community ID 090032#	No formal capability assessment section
Hartford	CCRPA	Plainville	X	X	X	X		X	community ID 090034#	No formal capability assessment section
Hartford	CCRPA	Southington	X	X	X	X		X	community ID 090037#	No formal capability assessment section
Hartford	CRCOG	Avon	X	X	X	X		X		Few projects underway to facilitate Capability Assessment; mostly with flooding and improvements to drainage
Hartford	CRCOG	Berlin	X	X	X	X		X	community ID #090022	STEAP eligible community
Hartford	CRCOG	Bloomfield	X	X	X	X		X		Few projects underway to facilitate Capability Assessment; mostly with flooding and improvements to drainage
Hartford	CRCOG	Canton	X	X	X	X		X		Few projects underway to facilitate Capability Assessment; mostly with flooding and improvements to drainage
Hartford	CRCOG	East Granby	X	X	X	X		X		Few projects underway to facilitate Capability Assessment; mostly with flooding and improvements to drainage
Hartford	CRCOG	East Hartford	X	X	X	X		X		Few projects underway to facilitate Capability Assessment; mostly with flooding and improvements to drainage
Hartford	CRCOG	East Windsor	X	X	X	X		X		Few projects underway to facilitate Capability Assessment; mostly with flooding and improvements to drainage
Hartford	CRCOG	Enfield	X	X	X	X		X		No formal capability assessment section; Town has completed numerous mitigation projects since adoption of the FHMP in 2000.
Hartford	CRCOG	Farmington	X	X	X	X		X		Few projects underway to facilitate Capability Assessment; mostly with flooding and improvements to drainage
Hartford	CRCOG	Glastonbury	X	X	X	X		X		Few projects underway to facilitate Capability Assessment; mostly with flooding and improvements to drainage
Hartford	CRCOG	Granby	X	X	X	X		X		Few projects underway to facilitate Capability Assessment; mostly with flooding and improvements to drainage
Hartford	CRCOG	Hartford	X	X	X	X		X	Recommended	Few projects underway to facilitate Capability Assessment; mostly with flooding and improvements to drainage
Hartford	CRCOG	Manchester	X	X	X	X		X		Few projects underway to facilitate Capability Assessment; mostly with flooding and improvements to drainage
Hartford	CRCOG	Marlborough	X	X	X	X		X		Few projects underway to facilitate Capability Assessment; mostly with flooding and improvements to drainage
Hartford	CRCOG	Newington	X	X	X	X	X	X		Few projects underway to facilitate Capability Assessment; mostly with flooding and improvements to drainage
Hartford	CRCOG	Rocky Hill	X	X	X	X		X		Few projects underway to facilitate Capability Assessment; mostly with flooding and improvements to drainage
Hartford	CRCOG	Simsbury	X	X	X	X		X		Few projects underway to facilitate Capability Assessment; mostly with flooding and improvements to drainage
Hartford	CRCOG	South Windsor	X	X	X	X		X	Recommended	Few projects underway to facilitate Capability Assessment; mostly with flooding and improvements to drainage
Hartford	CRCOG	Suffield	X	X	X	X		X		Few projects underway to facilitate Capability Assessment; mostly with flooding and improvements to drainage
Hartford	CRCOG	West Hartford	X	X	X	X		X	Current, Class 8 (10% discount)	Town provides outreach to RLPs regarding retrofits and holds regular meetings to provide technical advice to residents on flood protection and preparedness
Hartford	CRCOG	Wethersfield	X	X	X	X		X	Recommended	Few projects underway to facilitate Capability Assessment; mostly with flooding and improvements to drainage
Hartford	CRCOG	Windsor	X	X	X	X		X	Recommended	Few projects underway to facilitate Capability Assessment; mostly with flooding and improvements to drainage
Hartford	CRCOG	Windsor Locks	X	X	X	X		X		Few projects underway to facilitate Capability Assessment; mostly with flooding and improvements to drainage
Hartford	LHCEO	Hartland	X	X	X	X		X		
Litchfield	LHCEO	Barkhamsted	X	X	X	X		X		
Litchfield	LHCEO	Colebrook	X	X	X	X		X		
Litchfield	LHCEO	Goshen	X	X	X	X		X		
Litchfield	LHCEO	Harwinton	X	X	X	X		X		
Litchfield	LHCEO	Litchfield	X	X	X	X		X		
Litchfield	LHCEO	Morris	X	X	X	X		X		
Litchfield	LHCEO	New Hartford	X	X	X	X		X		
Litchfield	LHCEO	Norfolk	X	X	X	X		X		
Litchfield	LHCEO	Torrington	X	X	X	X		X		
Litchfield	LHCEO	Winchester	X	X	X	X		X		
Litchfield	NWCOG	Canaan	X	X	X	X		X		
Litchfield	NWCOG	Cornwall	X	X	X	X		X		
Litchfield	NWCOG	Kent	X	X	X	X		X		
Litchfield	NWCOG	North Canaan	X	X	X	X		X		
Litchfield	NWCOG	Roxbury	X	X	X	X		X		Towns have individual EOPs that guide each town's response to emergencies arising from both natural and anthropogenic hazards
Litchfield	NWCOG	Salisbury	X	X	X	X		X		
Litchfield	NWCOG	Sharon	X	X	X	X		X		
Litchfield	NWCOG	Warren	X	X	X	X		X		
Litchfield	NWCOG	Washington	X	X	X	X		X		
Middlesex	LCRVCOG	Chester	X	X	X	X		X		Stricter 10-year limitation for substantial improvements
Middlesex	LCRVCOG	Clinton	X	X	X	X	X	X		Stricter 5-year limitation for substantial improvements
Middlesex	LCRVCOG	Cromwell	X	X	X	X		X	Joining CRS Recommended	
Middlesex	LCRVCOG	Deep River	X	X	X	X		X		Several Capability suggestions are in place as of 2014
Middlesex	LCRVCOG	Durham	X	X	X	X		X	Joining CRS Recommended	
Middlesex	LCRVCOG	East Haddam	X	X	X	X		X	Joining CRS Recommended	
Middlesex	LCRVCOG	East Hampton	X	X	X	X		X	Joining CRS Recommended	
Middlesex	LCRVCOG	Essex	X	X	X	X		X		
Middlesex	LCRVCOG	Haddam	X	X	X	X		X	Joining CRS Recommended	
Middlesex	LCRVCOG	Killingworth	X	X	X	X		X		
New London	LCRVCOG	Lyme	X	X	X	X		X		
Middlesex	LCRVCOG	Middlefield	X	X	X	X		X	Joining CRS Recommended	
Middlesex	LCRVCOG	Middletown	X	X	X	X		X	Joining CRS Recommended	
New London	LCRVCOG	Old Lyme	X	X	X	X		X		
Middlesex	LCRVCOG	Old Saybrook	X	X	X	X		X		Stricter 5-year limitation for substantial improvements
Middlesex	LCRVCOG	Portland	X	X	X	X		X	Joining CRS Recommended; Currently, benefit of program does not justify cost. Reviewed annually.	
Middlesex	LCRVCOG	Westbrook	X	X	X	X		X	Current Status is "Recinded" - Class 10 as of 2011	Stricter 5-year limitation for substantial improvements
New Haven	NVCOG	Ansonia	X	X	X	X		X	Recommended	
New Haven	NVCOG	Beacon Falls	X	X	X	X		X	Town currently has no plans to enroll in CRS, but may consider it	New construction and improvements must be 2 feet above BFE; several specific flood-prevention strategies; develop a plan to address potential wind damage due to excessive pine trees located along Route 42 and Blackberry Hill Road (revisit the potential for replacing overhead utilities with underground utilities); plan to prioritize snow removal from the roof of critical facilities and other municipal buildings each winter; plan to address snow drift in the vicinity of West Road, Hillside Drive, Skokrat Road and Blackberry Hill Road. Snow fencing and certain vegetation buffers may be helpful to reduce drifting; Evaluate the effectiveness of bracing systems and assets inside critical facilities; Develop

										a long-term beaver dam management plan - If found feasible in the beaver dam management plan, utilize beaver deterrent devices such as beaver stops or beaver baffl ers; Provide technical assistance referrals to owners of Smith's Dam regarding effective maintenance actions if needed; Explore other fire protection solutions when water main extensions are not feasible, such as the use of fire ponds
Litchfield	NVCOG	Bethlehem	X	X	X	X		X	The Town has not completed an update of its flood hazard regulations, and currently has no plans to enroll in the Community Rating System program.	Consider limited acquisitions of homes along Arrowhead Lane depending on their elevations and flood risk; replace culverts throughout town and increase capacities where appropriate; harden utility lines that feed the Main Street area, as the services along Main Street South are critical for the town after weather emergencies; The town may consider bracing systems and assets inside critical facilities. This could help protect IT systems, important records and files, libraries, and department-specific assets such as mechanical equipment in the wastewater treatment plant; Construct a properly sized spillway for Long Meadow Pond Dam; increase capacities of culverts downstream of Long Meadow Pond Dam to convey the same discharges as the spillway after it is constructed; develop a written evacuation plan for Arrowhead Lane and Crane Hollow Road residents; File EAPs in the office of emergency management and ensure they are current.
Hartford	NVCOG	Bristol	X	X	X	X		X	GOAL is to become Rated Class 8 - community ID 090023#	developing low- impact development guidance and adopting standards in conjunction with other watershed communities, updating the local floodplain management ordinance to meet current model ordinance requirements, and developing a Pequabuck River flood response plan to allow dam operators with gated spillways a chance to close or open spillways to mitigate the effect of flooding. These include adding a freeboard requirement of two feet for all new development and substantial improvement, and selective acquisitions of properties; replacement of the Frederick Street bridge near the mouth of Copper Mine Brook is ongoing, and the drainage system on Barnes Street is being upgraded; $13.5 million sanitary sewer overflow project identified in the initial Plan is essentially completed
New Haven	NVCOG	Cheshire	X	X	X	X		X	Current Status is "Recinded" - class 10	CRS: The Town is not presently interested in the CRS and the strategy can be deleted.
New Haven	NVCOG	Derby	X	X	X	X		X	Recommended	
New Haven	NVCOG	Middlebury	X	X	X	X	X	X	Joining CRS Recommended	Repair the Long Meadow Pond dam (undefined Class; however, it is noted in the most poor condition of all dams); complete DFA for both Class B dams; Utilizing the "CT Alert" Emergency Notification System to send warnings into potentially affected areas;
New Haven	NVCOG	Naugatuck	X	X	X	X		X	Joining CRS Recommended	New construction and improvements must be 2 feet above BFE
New Haven	NVCOG	Oxford	X	X	X	X		X	Joining CRS Recommended	
Litchfield	NVCOG	Plymouth	X	X	X	X		X	community ID 090138#	
New Haven	NVCOG	Prospect	X	X	X	X		X		Consider identifying elevated wildfire risk areas and ensure that the appropriate methods are in place to reduce this risk; revisit dams and discuss the outcomes of the legislation and any new regulations administered by the Connecticut DEEP; consider bracing systems and assets inside all critical facilities; Develop a plan to prioritize snow removal from the roof of critical facilities and other municipal buildings each winter; Acquire standby power supplies for the critical facilities that do not have generators such as the Public Works building; Conduct drainage improvements along Gramar Avenue, specifically in the vicinity of Oxford General Industries which repeatedly floods; Replace the two twin pipes along Putting Green Lane with a box culvert to alleviate flooding impacts; Continue to work with CT DEEP and the Connecticut Agricultural Experiment Station in order to manage the Emerald Ash Borer in Prospect
New Haven	NVCOG	Seymour	X	X	X	X		X	Recommended	
Fairfield	NVCOG	Shelton	X	X	X	X		X	Recommended	
New Haven	NVCOG	Southbury	X	X	X	X	X	X	Joining CRS Recommended; Town is not interested	
Litchfield	NVCOG	Thomaston	X	X	X	X		X	Joining CRS Recommended; Town is not interested at this time; this was removed from task list	Need to work with CWC to increasewater pressure of hydrants in town (wildfires); sewer plant operating near capacity; expect to likely be at capacity when proposed developments are built (or have already been built since 2015?);
New Haven	NVCOG	Waterbury	X	X	X	X		X	Joining CRS Recommended	Chase bldg experiences flooding ~6x/yr a long-term solution is desired (city intends to install an improved drainage system); needs a comprehensive stormwater management plan
Litchfield	NVCOG	Watertown	X	X	X	X		X	"The town currently does not participate"	
New Haven	NVCOG	Wolcott	X	X	X	X	X	X	Joining CRS Recommended	
Litchfield	NVCOG	Woodbury	X	X	X	X		X	Not currently considering the CRS	
New Haven	SCRCOG	Bethany	X	X	X	X		X		
New Haven	SCRCOG	Branford	X	X	X	X		X		
New Haven	SCRCOG	East Haven	X	X	X	X	X	X	x (entered but not in use currently)	
New Haven	SCRCOG	Guilford	X	X	X	X	X	X	Joining CRS Recommended	
New Haven	SCRCOG	Hamden	X	X	X	X		X		
New Haven	SCRCOG	Madison	X	X	X	X		X		
New Haven	SCRCOG	Meriden	X	X	X	X		X	Joining CRS Recommended	
New Haven	SCRCOG	Milford	X	X	X	X		X	Current, Class 9 (5% discount)	
New Haven	SCRCOG	New Haven	X	X	X	X		X		
New Haven	SCRCOG	North Branford	X	X	X	X		X		
New Haven	SCRCOG	North Haven	X	X	X	X		X		
New Haven	SCRCOG	Orange	X	X	X	X		X		
New Haven	SCRCOG	Wallingford	X	X	X	X		X		
New Haven	SCRCOG	West Haven	X	X	X	X		X		
New Haven	SCRCOG	Woodbridge	X	X	X	X		X		
New London	SCCOG	Bozrah	X	X	X	X		X		
New London	SCCOG	Colchester	X	X	X	X		X		
New London	SCCOG	East Lyme	X	X	X	X		X	Current, Class 8 (10% discount)	
New London	SCCOG	Franklin	X	X	X	X		X		
New London	SCCOG	Griswold	X	X	X	X		X		
New London	SCCOG	Groton (City)	X	X	X	X		X		
New London	SCCOG	Groton (Town)	X	X	X	X		X		
New London	SCCOG	Ledyard	X	X	X	X		X		
New London	SCCOG	Lisbon	X	X	X	X		X		
New London	SCCOG	Montville	X	X	X	X		X		
New London	SCCOG	New London	X	X	X	X		X		
New London	SCCOG	North Stonington	X	X	X	X		X		
New London	SCCOG	Norwich	X	X	X	X		X		
New London	SCCOG	Preston	X	X	X	X		X		
New London	SCCOG	Salem	X	X	X	X		X		
New London	SCCOG	Sprague	X	X	X	X		X		
New London	SCCOG	Stonington (Borough)	X	X	X	X		X	Current, Class 8 (10% discount)	
New London	SCCOG	Stonington (Town)	X	X	X	X		X	Town is actively pursuing reinstatement into CRS, Current, Class 9 (5% discount)	
New London	SCCOG	Waterford	X	X	X	X		X	Joining CRS Recommended	
New London	SCCOG	Lebanon	X	X	X	X		X		
Tolland	CRCOG	Andover	X	X	X	X		X		Few projects underway to facilitate Capability Assessment; mostly with flooding and improvements to drainage
Tolland	CRCOG	Bolton			X	X		X		Few projects underway to facilitate Capability Assessment; mostly with flooding and improvements to drainage
Tolland	CRCOG	Ellington	X	X	X	X		X		Few projects underway to facilitate Capability Assessment; mostly with flooding and improvements to drainage
Tolland	CRCOG	Hebron	X	X	X	X		X		Few projects underway to facilitate Capability Assessment; mostly with flooding and improvements to drainage
Tolland	CRCOG	Somers	X	X	X	X		X	Recommended	Few projects underway to facilitate Capability Assessment; mostly with flooding and improvements to drainage
Tolland	CRCOG	Stafford	X	X	X	X		X	Recommended	Few projects underway to facilitate Capability Assessment; mostly with flooding and improvements to drainage
Tolland	CRCOG	Tolland	X	X	X	X		X	Recommended	Few projects underway to facilitate Capability Assessment; mostly with flooding and improvements to drainage
Tolland	CRCOG	Vernon	X	X	X	X		X	Recommended	Few projects underway to facilitate Capability Assessment; mostly with flooding and improvements to drainage
Tolland	CRCOG	Columbia	X	X	X	X		X		
Tolland	CRCOG	Coventry	X	X	X	X		X		
Tolland	CRCOG	Mansfield	X	X	X	X		X		
Tolland	CRCOG	Willington	X	X	X	X		X		
Windham	NECCOG	Ashford	X	X	X	X		X		Region wide: An inventory and threat calculation of beaver created dams within the Region is needed to understand their number and potential hazard threat. Based on results - a list of priorities for the management of these dams should be developed. Putnam: Simonzi Park Streambank Stabilization - approximately 1,000 feet on the Quinebaug River fronting Simonzi Park. River is causing signficant erosion that, if not corrected, will endanger Simonzi Park, the Putnam River Trail, Kennedy Drive, and water and sewer lines. Engineering design and plans have been completed.
Windham	NECCOG	Brooklyn	X	X	X	X		X		Region wide: An inventory and threat calculation of beaver created dams within the Region is needed to understand their number and potential hazard threat. Based on results - a list of priorities for the management of these dams should be developed. Putnam: Simonzi Park Streambank Stabilization - approximately 1,000 feet on the Quinebaug River fronting Simonzi Park. River is causing signficant erosion that, if not corrected, will endanger Simonzi Park, the Putnam River Trail, Kennedy Drive, and water and sewer lines. Engineering design and plans have been completed.
Windham	NECCOG	Canterbury	X	X	X	X		X		Region wide: An inventory and threat calculation of beaver created dams within the Region is needed to understand their number and potential hazard threat. Based on results - a list of priorities for the management of these dams should be developed. Putnam: Simonzi Park Streambank Stabilization - approximately 1,000 feet on the Quinebaug River fronting Simonzi Park. River is causing signficant erosion that, if not corrected, will endanger Simonzi Park, the Putnam River Trail, Kennedy Drive, and water and sewer lines. Engineering design and plans have been completed.
Windham	NECCOG	Chaplin	X	X	X	X		X		Region wide: An inventory and threat calculation of beaver created dams within the Region is needed to understand their number and potential hazard threat. Based on results - a list of priorities for the management of these dams should be developed. Putnam: Simonzi Park Streambank Stabilization - approximately 1,000 feet on the Quinebaug River fronting Simonzi Park. River is causing signficant erosion that, if not corrected, will endanger Simonzi Park, the Putnam River Trail, Kennedy Drive, and water and sewer lines. Engineering design and plans have been completed.
Windham	NECCOG	Eastford	X	X	X	X		X		Region wide: An inventory and threat calculation of beaver created dams within the Region is needed to understand their number and potential hazard threat. Based on results - a list of priorities for the management of these dams should be developed. Putnam: Simonzi Park Streambank Stabilization - approximately 1,000 feet on the Quinebaug River fronting Simonzi Park. River is causing signficant erosion that, if not corrected, will endanger Simonzi Park, the Putnam River Trail, Kennedy Drive, and water and sewer lines. Engineering design and plans have been completed.
Windham	NECCOG	Hampton	X	X	X	X		X		Region wide: An inventory and threat calculation of beaver created dams within the Region is needed to understand their number and potential hazard threat. Based on results - a list of priorities for the management of these dams should be developed. Putnam: Simonzi Park Streambank Stabilization - approximately 1,000 feet on the Quinebaug River fronting Simonzi Park. River is causing signficant erosion that, if not corrected, will endanger Simonzi Park, the Putnam River Trail, Kennedy Drive, and water and sewer lines. Engineering design and plans have been completed.
Windham	NECCOG	Killingly	X	X	X	X		X		Region wide: An inventory and threat calculation of beaver created dams within the Region is needed to understand their number and potential hazard threat. Based on results - a list of priorities for the management of these dams should be developed. Putnam: Simonzi Park Streambank Stabilization - approximately 1,000 feet on the Quinebaug River fronting Simonzi Park. River is causing signficant erosion that, if not corrected, will endanger Simonzi Park, the Putnam River Trail, Kennedy Drive, and water and sewer lines. Engineering design and plans have been completed.
Windham	NECCOG	Plainfield	X	X	X	X		X		Region wide: An inventory and threat calculation of beaver created dams within the Region is needed to understand their number and potential hazard threat. Based on results - a list of priorities for the management of these dams should be developed. Putnam: Simonzi Park Streambank Stabilization - approximately 1,000 feet on the Quinebaug River fronting Simonzi Park. River is causing signficant erosion that, if not corrected, will endanger Simonzi Park, the Putnam River Trail, Kennedy Drive, and water and sewer lines. Engineering design and plans have been completed.
Windham	NECCOG	Pomfret	X	X	X	X		X		Region wide: An inventory and threat calculation of beaver created dams within the Region is needed to understand their number and potential hazard threat. Based on results - a list of priorities for the management of these dams should be developed. Putnam: Simonzi Park Streambank Stabilization - approximately 1,000 feet on the Quinebaug River fronting Simonzi Park. River is causing signficant erosion that, if not corrected, will endanger Simonzi Park, the Putnam River Trail, Kennedy Drive, and water and sewer lines. Engineering design and plans have been completed.
Windham	NECCOG	Putnam	X	X	X	X		X		Region wide: An inventory and threat calculation of beaver created dams within the Region is needed to understand their number and potential hazard threat. Based on results - a list of priorities for the management of these dams should be developed. Putnam: Simonzi Park Streambank Stabilization - approximately 1,000 feet on the Quinebaug River fronting Simonzi Park. River is causing signficant erosion that, if not corrected, will endanger Simonzi Park, the Putnam River Trail, Kennedy Drive, and water and sewer lines. Engineering design and plans have been completed.
Windham	NECCOG	Scotland	X	X	X	X		X		Region wide: An inventory and threat calculation of beaver created dams within the Region is needed to understand their number and potential hazard threat. Based on results - a list of priorities for the management of these dams should be developed. Putnam: Simonzi Park Streambank Stabilization - approximately 1,000 feet on the Quinebaug River fronting Simonzi Park. River is causing signficant erosion that, if not corrected, will endanger Simonzi Park, the Putnam River Trail, Kennedy Drive, and water and sewer lines. Engineering design and plans have been completed.
Windham	NECCOG	Sterling	X	X	X	X		X		Region wide: An inventory and threat calculation of beaver created dams within the Region is needed to understand their number and potential hazard threat. Based on results - a list of priorities for the management of these dams should be developed. Putnam: Simonzi Park Streambank Stabilization - approximately 1,000 feet on the Quinebaug River fronting Simonzi Park. River is causing signficant erosion that, if not corrected, will endanger Simonzi Park, the Putnam River Trail, Kennedy Drive, and water and sewer lines. Engineering design and plans have been completed.
Windham	NECCOG	Thompson	X	X	X	X		X		Region wide: An inventory and threat calculation of beaver created dams within the Region is needed to understand their number and potential hazard threat. Based on results - a list of priorities for the management of these dams should be developed. Putnam: Simonzi Park Streambank Stabilization - approximately 1,000 feet on the Quinebaug River fronting Simonzi Park. River is causing signficant erosion that, if not corrected, will endanger Simonzi Park, the Putnam River Trail, Kennedy Drive, and water and sewer lines. Engineering design and plans have been completed.
Tolland	NECCOG	Union	X	X	X	X		X		Region wide: An inventory and threat calculation of beaver created dams within the Region is needed to understand their number and potential hazard threat. Based on results - a list of priorities for the management of these dams should be developed. Putnam: Simonzi Park Streambank Stabilization - approximately 1,000 feet on the Quinebaug River fronting Simonzi Park. River is causing signficant erosion that, if not corrected, will endanger Simonzi Park, the Putnam River Trail, Kennedy Drive, and water and sewer lines. Engineering design and plans have been completed.
New London	NECCOG	Voluntown				X		X		*Only town in the region with a GIS-compatible FIRM. Region wide: An inventory and threat calculation of beaver created dams within the Region is needed to understand their number and potential hazard threat. Based on results - a list of priorities for the management of these dams should be developed. Putnam: Simonzi Park Streambank Stabilization - approximately 1,000 feet on the Quinebaug River fronting Simonzi Park. River is causing signficant erosion that, if not corrected, will endanger Simonzi Park, the Putnam River Trail, Kennedy Drive, and water and sewer lines. Engineering design and plans have been completed.

Windham	NECCOG	Woodstock	X	X	X	X		X		Region wide: An inventory and threat calculation of beaver created dams within the Region is needed to understand their number and potential hazard threat. Based on results - a list of priorities for the management of these dams should be developed. Putnam: Simonzi Park Streambank Stabilization - approximately 1,000 feet on the Quinebaug River fronting Simonzi Park. River is causing signficant erosion that, if not corrected, will endanger Simonzi Park, the Putnam River Trail, Kennedy Drive, and water and sewer lines. Engineering design and plans have been completed.
Windham	SCCOG	Windham	X	X	X	X		X		
Unaffiliated	SCCOG	Mashantucket Pequot Tribal Nation	X	X	X	X		X		
		Mohegan Tribe	X	X	X	X		X		

Actions

Does the plan have projects that fall into any of these general categories? If so, please indicate what sub-type it is within the general category. Multiple projects within the same category do not have to be denoted, unless they are different sub-types. If you come across a specific project that really rocks and is totally awesome and unique, please call it out and paste it in a seperate column. We'll be writing about those types of projects seperately.

			Project Type								
County	**RPO**	**Community or Tribe**	**Prevention Measures** *(Indicate: P-Plan, AS-Alert Systems, S-Structural Prevention, O-Other)*	**Property Protection Measures** *(Indicate: A-Acquired, L-Relocated, E-Elevated, R-Regulations, V-Vulnerability Analysis, O-Other)*	**Emergency Services Measures** *(Indicate: T-Training, E-Equipment, M-Mapping, D-Data collection, P-Planning, O-Other)*	**Structural Projects Measures** *(Indicate: M-Maintenance, N-New Structure, O-Other)*	**Natural Resource Protection Measures** *(Indicate: X-Yes)*	**Public Education and Awareness Measures** *(Indicate: T-Training, M-Public Meetings, P-Publications, O-Other)*	**NFIP** *(Indicate: X-NFIP Projects listed)*	**Community Rating System (CRS)** *(Indicate: X-CRS Projects Listed*	**Projects that Rock!**
Fairfield	**MetroCOG**	**Bridgeport**	**S, AS**	**E, R**	**D, M**	**N, M**	**X**	**P**	**X**	**Recommended**	Ox Brook Flood Control project: create a stormwater detention area at the north end of the project in Roger's Park, acquire additional land as needed for creation of the detention area
Fairfield	**MetroCOG**	**Easton**	**AS**	**E**	**T, D**	**M, N**	**X**	**T**	**X**	**Recommended**	
Fairfield	**MetroCOG**	**Fairfield**	**S**	**E, L, R**	**T, E, P**	**M**	**X**	**T, M, P**	**X**	**Recommended**	
Fairfield	**MetroCOG**	**Monroe**	**S**	**E**	**T, E, P**	**M, N**	**X**	**T**	**X**	**Recommended**	
Fairfield	**MetroCOG**	**Stratford**	**P, AS, S**	**R, E**	**M, D**	**M, N**	**X**	**M**	**X**	**Recommended**	Encourage or consider requiring the use of storm shutters along the coastline.
Fairfield	**MetroCOG**	**Trumbull**	**AS**	**E**	**T, D**	**M**	**X**	**T**	**X**	**Recommended**	
Fairfield	**WestCOG**	**Bethel**	**P, AS, S**	**A, L, E, R**	**T, E, P**	**M, N**	**X**	**P, M, T**	**X**	**Not recommended for Bethel**	
Litchfield	**WestCOG**	**Bridgewater**	**P, AS, S**	**A, E**	**T, E, P**	**M**	**X**	**P, M**	**X**	**Not recommended for Bridgewater**	
Fairfield	**WestCOG**	**Brookfield**	**P, AS, S**	**A, L, O, V**	**T, E, P**	**M, N**	**X**	**T, M, P**	**X**	**Enrolling is recommended**	
Fairfield	**WestCOG**	**Danbury**	**AS, P, S, O (increase tree inspections)**	**R, A, E, L, V**	**E, M, P, D**	**M, N**	**X**	**P, T, M,**	**X**	**Joining CRS Recommended**	Construct the proposed Blind Brook channel improvements scheduled for 2012-2015 as well as acquire homes out of the Blind Brook floodplain and convert to City park space
Fairfield	WestCOG	New Fairfield	AS, P, S, O (increase tree inspections)	**R, A, L,**	**E, M, P**	**M, N**	**X**	**P, T, M,**			
Litchfield	WestCOG	New Milford	P	**R, E**	**E, M, D, O**	**N**	**X**	**T, P**	**X**		Adopt low-impact development standards into the Zoning and Subdivision Regulations
Fairfield	**WestCOG**	**Newtown**	**P, AS**	**R, E**	**E, D, P**	**O**	**X**	**T, P**	**X**		Conduct a town wide drainage analysis to determine appropriate mitigation measures
Fairfield	**WestCOG**	**Redding**	**P, AS, S**	**R**	**M, D, P**	**N**	**X**	**T, P, O**		**Enrolling Recommended**	Develop a long term beaver management plan
Fairfield	**WestCOG**	**Ridgefield**	**P, AS, S, O (tree inspection)**	**R, V**	**E, M, D**	**R (replace)**	**X**	**P**	**X**	**Evaluate cost/benefit**	…place non-conducting steel cables above power lines to protect from falling branches and trees
Fairfield	WestCOG	Sherman	P, AS, S, O	**R**	**E, M**	**M, N**		**T, P, O**			Upgrade unpaved portions of Jericho Rd N to provide additional egress north from Town Center
Fairfield	**SWestCOG**	**Darien**	**P**	**V, R, E, A**	**M, P**	**M, N**	**X**	**P, T, M**	**X**		
Fairfield	**SWestCOG**	**Greenwich**	**AS**	**R**	**D, E, M, T**	**M, N**	**X**	**P, M**	**X**		
Fairfield	**SWestCOG**	**New Canaan**	**AS**	**A, R**	**E**				**X**		

Fairfield	**SWestCOG**	**Norwalk**	**P**	**V**	**E, D, M**	**M**	**X**	**P, O, M**	**X**	**X**	
Fairfield	**SWestCOG**	**Stamford**	**P, AS**	**V, A**	**M, T, E, D**		**X**		**X**	**X**	
Fairfield	**SWestCOG**	**Weston**	**AS, P**	**A, V, E**	**D, M, E**	**M**	**X**	**p**	**X**		Conservation Commission should explore LID methodology and, together with the Planning and Zoning Commission, promulgate regulations including strengthening regulations controlling changes in rates and direction of runoff from roadways and lots; encouraging retention of existing forests, outcrops, ridges and stone walls; urging selective rather than clear cutting of trees; and updating the Weston Environmental Resources Manual
Fairfield	**SWestCOG**	**Westport**	**P**	**A, E, R**	**P**	**M**	**X**	**P**	**X**	**X**	
Fairfield	**SWestCOG**	**Wilton**	**AS, S, P**	**R**	**D, T, P**	**M**	**X**	**T, M, P**	**X**		
Hartford	CCRPA	Burlington	S, AS; Page 50-52	**R**	**T, E**	**M**		**P, T**	**X**		
Hartford	CCRPA	New Britain	P; Page 55-56	**R**	**P**			**P (trilingual!), T**	**X**		Guidelines governing release of water from dams to avoid dam breakage
Hartford	CCRPA	Plainville	P, S; Page 59-60	**R**	**E, T, D**			**P, T**			Acquired one RLP and converted to open space
Hartford	CCRPA	Southington	AS; Page 68-69	**R**	**D, E, P**			**P, T**			
Hartford	**CRCOG**	**Avon**		**R**	**P, T, E, D, M**			**P**	**X**		
Hartford	**CRCOG**	**Berlin**	P, S, O; Page 41-42	**A, L, R**	**P, E, T**		**X**	**P, T**	**X**		Acquired one RLP and converted to open space
Hartford	**CRCOG**	**Bloomfield**	**P**	**A**	**D, M, E, P, T**		**X**	**P, O (outreach to property owners to clear debris from streams)**			
Hartford	**CRCOG**	**Canton**	**AS**	**L, A, R, V**	**D, P**	**M**	**X**	**P**	**X**		
Hartford	**CRCOG**	**East Granby**	**P, S**	**R, V, L**	**P, D**	**M, N**	**X**	**T, P**	**X**		
Hartford	**CRCOG**	**East Hartford**	**P, S, AS**	**V**	**P, T, D**	**M, N (including MDC Clean Water Project)**		**M, T, P**	**X**		$7 million capital improvement program tp repair and upgrade CT River levee system; MDC Clean Water Project separating storm and sanitary sewers
Hartford	**CRCOG**	**East Windsor**	**O (increase public works staff), P**	**V, O (remove beaver dams); A**	**D, P, T, E**	**M, N**	**X**	**P**	**X**		
Hartford	**CRCOG**	**Enfield**		**A, R**	**P, D, E**	**N, M**		**T**	**X**		
Hartford	**CRCOG**	**Farmington**	**P**	**V**	**P, D, E**	**O (feasibility of roadway elevation and installation of bi-directional culverts)**		**P**	**X**		
Hartford	**CRCOG**	**Glastonbury**	**P, S**	**R**	**D, T, P**	**O (feasibility of bridge elevation)**		**P**	**X**		
Hartford	**CRCOG**	**Granby**	**P, O (increase tree-trimming budget**	**R, L (utilities underground, fire roads and dry hydrant installation)**	**E, P, O (increase public works funding and contracts to enhance availability)**	**N (priority bridge projects)**		**P**			Promote timber management planning with other major landowners to mitigate wildfire risk
Hartford	**CRCOG**	**Hartford**	**P, AS**	**V**	**T, D, P, E**	**N (including MDC Clean Water Project), M**	**X**	**P, M**	**X**	**Joining CRS Recommended**	$10 million capital improvement program tp repair and upgrade CT River levee system; MDC Clean Water Project separating storm and sanitary sewers
Hartford	**CRCOG**	**Manchester**	**AS, P**	**V**	**E, P, D, M**	**O (New EOC, electrical upgrades to primary shelter); N (upgrade/elevate roads)**		**P, T**	**X**		

Hartford	**CRCOG**	**Marlborough**	**O (fund staff and labor for snow removal; monitor utility ROW tree maintainance), P**		**E**	**M**		**P, T**			
Hartford	**CRCOG**	**Newington**	**O (monitor drainage system maintainance by railroad), P**		**T**	**N, M**			**X**		Implementing the recommendations of 2004 NRCS study to remove/upgrade culverts and floodproof buildings in Stamm Road area
Hartford	**CRCOG**	**Rocky Hill**	**P, S**		**E, P**	**N (including storage area for emergency sheltering resources)**		**P, T**	**X**		
Hartford	**CRCOG**	**Simsbury**	**P, AS**	**R, A**	**P, D, E**	**N**	**X**	**T**	**X**	**Joining CRS Recommended**	
Hartford	**CRCOG**	**South Windsor**	**AS, P**	**V, R**	**P, D**	**M**	**X**	**P**	**X**	**Joining CRS Recommended**	
Hartford	**CRCOG**	**Suffield**	**P, S**		**P, T, E**	**M, N**		**P, T**	**X**		
Hartford	**CRCOG**	**West Hartford**	**P**		**P**	**M**		**P, M, T**		**X**	Annual "Flood Hazard Information Week"
Hartford	**CRCOG**	**Wethersfield**	**O (tree maintenance budget), P**	**V, L (power lines), R**	**D, P**	**N, O (dredging projects), M**		**T, M, P**	**X**	**Joining CRS Recommended**	
Hartford	**CRCOG**	**Windsor**	**P**	**V, L (power lines)**	**P, E, T**	**N, M**		**T, M, P**	**X**	**Joining CRS Recommended**	
Hartford	**CRCOG**	**Windsor Locks**	**S**	**R**		**N, M**			**X**		
Hartford	**LHCEO**	**Hartland**	**AS, P, S**	**R, A, V, E**	**P, T, E, M**	**M, N**	**X**	**T, P, M**	**X**		
New Haven	**NVCOG**	**Ansonia**	**S, P, AS**	**E, A**	**M, D**	**M**	**X**	**P, O**	**X**	**Recommended**	Pursue acquisition / demolition or elevation of residential structures that suffer flood damage; prioritize RLPs.
New Haven	**NVCOG**	**Beacon Falls**	**O (increase tree inspections), AS, P**	**A, L, R, O**	**D, M, P, E, T**	**N, M**	**X**	**P, T, M, O,**	**X**	**Joining CRS Recommended**	Upgrade utilities and place underground on Main Street between the Police Station and Exit 23 off Route 8 to prevent future damage from flooding;
Litchfield	**NVCOG**	**Bethlehem**	**O (increase tree inspections), AS, P**	**R, L (utilies underground, elevate roads, dry hydrants), E, A,**	**O, D, P,**	**N, M**	**X**	**P, T, M, O,**	**X**		Upgrade town-owned Class B dam to pass 100-year flood event
Hartford	**NVCOG**	**Bristol**	**P, AS, S, O**	**A, L, E, R**	**T, E, M. D, P**	**N, O**	**X**	**P, T, O**	**X**	**X**	The FEMA Student Tools for Emergency Planning (STEP) program began in May 2015 for local fifth graders. This program teaches students how to prepare for emergencies.
New Haven	**NVCOG**	**Cheshire**	**P, AS, S, O**	**A, L, R, O**	**M, D, P, E, T,**	**N, M**	**X**	**P**	**X**	**X, but status recinded**	
New Haven	**NVCOG**	**Derby**	**S, P, AS**	**R, E, A**	**M**	**M**	**X**	**P, O**	**X**	**Recommended**	Pursue acquisition / demolition or elevation of residential structures that suffer flood damage; prioritize RLPs. Implement drainage improvements to the Gilbert Street area to reduce flooding; acquire properties as needed to facilitate
New Haven	**NVCOG**	**Middlebury**	**P, AS, O**	**A, L, R, O**	**M, P, T, E, D**	**N, M**	**X**	**P, T, M, O,**	**X**	**Joining CRS Recommended**	
New Haven	**NVCOG**	**Naugatuck**	**P, AS, O**	**A, L, R, O**	**M, P, T, E, D**	**N, M**	**X**	**P, T, M, O,**	**X**	**Joining CRS Recommended**	
New Haven	**NVCOG**	**Oxford**	**AS,**	**A, L, E, V,**	**T, M, E,**	**N, M**	**X**	**M, P,**	**X**	**Joining CRS Recommended**	
Litchfield	**NVCOG**	**Plymouth**	**P, AS, S, O**	**R, A, V, E**	**P, E, T, D, M**	**M, N**		**P, T, O, M**	**X**		
New Haven	**NVCOG**	**Prospect**	**P, AS, O**	**A, L, R, O**	**M, P, T, E, D**	**N, M**	**X**	**P, T, M, O,**	**X**		Town of Prospect is a member of the Connecticut Association of Flood Managers (CAFM) and as such, receives quarterly newsletters and notification about special trainings and conferences. This membership will enhance the town's capabilities with regard to flood management.
New Haven	**NVCOG**	**Seymour**	**S, P, AS**	**E, A**	**M, D**	**M**	**X**	**P, O**	**X**	**Recommended**	Pursue acquisition / demolition or elevation of residential structures that suffer flood damage; prioritize RLPs.

Fairfield	**NVCOG**	**Shelton**	**S, P, AS**	**E, A**	**M, E, D**	**M**	**X**	**P, O**	**X**	**Recommended**	Pursue acquisition / demolition or elevation of residential structures that suffer flood damage; prioritize RLPs.
New Haven	**NVCOG**	**Southbury**	**P, AS, O**	**A, L, R, O**	**M, P, T, E, D**	**N, M**	**X**	**P, T, M, O,**	**X**	**Joining CRS Recommended; Town is not interested**	Acquisitions throughout town
Litchfield	**NVCOG**	**Thomaston**	**AS, P, S, O (increase tree inspections)**	**A, L, R, O**	**T, P, M,**	**N, M**	**X**	**P, T, M, O,**	**X**	**Joining CRS Recommended**	Create or assign a new shelter facility outside of dam failure inundation areas of Class C dams **(considered not feasible at this time; this was removed from the task list of the 2015 Thomaston HMP Update Plan)**
New Haven	**NVCOG**	**Waterbury**	**P, AS, O**	**A, L, R, O**	**M, P, T, E, D**	**N, M**	**X**	**P, T, M, O,**	**X**	**Joining CRS Recommended**	City-wide stormwater upgrades (vast areas of the city do not have storm drainage systems)
Litchfield	**NVCOG**	**Watertown**	**AS, P, S, O (tree inspections)**	**A, V**	**T, P**	**N, M**	**X**	**P**	**X**	**"Town does not participate"**	
New Haven	**NVCOG**	**Wolcott**	**P, AS, O**	**A, L, R, O**	**M, P, T, E, D**	**N, M**	**X**	**P, T, M, O,**	**X**	**Joining CRS Recommended - the number of NFIP policies in the town has not yet justified CRS participation and may not justify it.**	
Litchfield	**NVCOG**	**Woodbury**	**P, S**	**V,**	**T, P,**	**N, M**	**X**	**P,**	**X**		Stream bank stabilization project; raise roadway **Completed.**
Litchfield	**LHCEO**	**Barkhamsted**	**AS, P, S**	**R, A, V, E**	**P, T, E, M**	**M, N**	**X**	**T, P, M**	**X**		
Litchfield	**LHCEO**	**Colebrook**	**AS, P, S**	**R, A, V, E**	**P, T, E, M**	**M, N**	**X**	**T, P, M**	**X**		
Litchfield	**LHCEO**	**Goshen**	**AS, P, S**	**R, A, V, E**	**P, T, E, M**	**M, N**	**X**	**T, P, M**	**X**		
Litchfield	**LHCEO**	**Harwinton**	**AS, P, S**	**R, A, V, E**	**P, T, E, M**	**M, N**	**X**	**T, P, M**	**X**		
Litchfield	**LHCEO**	**Litchfield**	**AS, P, S**	**R, A, V, E**	**P, T, E, M**	**M, N**	**X**	**T, P, M**	**X**		
Litchfield	**LHCEO**	**Morris**	**AS, P, S**	**R, A, V, E**	**P, T, E, M**	**M, N**	**X**	**T, P, M**	**X**		
Litchfield	**LHCEO**	**New Hartford**	**AS, P, S**	**R, A, V, E, L**	**P, T, E, M**	**M, N**	**X**	**T, P, M**	**X**		
Litchfield	**LHCEO**	**Norfolk**	**AS, P, S**	**R, A, V, E**	**P, T, E, M**	**M, N**	**X**	**T, P, M**	**X**		
Litchfield	**LHCEO**	**Torrington**	**AS, P, S**	**R, A, V, E**	**P, T, E, M, D**	**M, N**	**X**	**T, P, M**	**X**		Install gauges along the Naugatuck River to better monitor river levels during flooding events
Litchfield	**LHCEO**	**Winchester**	**AS, P, S**	**R, A, V, E**	**P, T, E, M**	**M, N**	**X**	**T, P, M**	**X**		
Litchfield	**NWCOG**	**Canaan**	**AS, P, S**	**R, A, V, E, L**	**P, T, E**	**M, N**	**X**	**T, P, M**	**X**		
Litchfield	**NWCOG**	**Cornwall**	**AS, P, S**	**R, A, V, E, L**	**P, T, E**	**M, N**	**X**	**T, P, M**	**X**		
Litchfield	**NWCOG**	**Kent**	**AS, P, S**	**R, A, V, E, L**	**P, T, E**	**M, N**	**X**	**T, P, M**	**X**		
Litchfield	**NWCOG**	**North Canaan**	**AS, P, S**	**R, A, V, E, L**	**P, T, E**	**M, N**	**X**	**T, P, M**	**X**		
Litchfield	**NWCOG**	**Roxbury**	**AS, P, S**	**R, A, V, E, L**	**P, T, E**	**M, N**	**X**	**T, P, M**	**X**		
Litchfield	**NWCOG**	**Salisbury**	**AS, P, S**	**R, A, V, E, L**	**P, T, E**	**M, N**	**X**	**T, P, M**	**X**		
Litchfield	**NWCOG**	**Sharon**	**AS, P, S**	**R, A, V, E, L**	**P, T, E**	**M, N**	**X**	**T, P, M**	**X**		
Litchfield	**NWCOG**	**Warren**	**AS, P, S**	**R, A, V, E, L**	**P, T, E**	**M, N**	**X**	**T, P, M**	**X**		
Litchfield	**NWCOG**	**Washington**	**AS, P, S**	**R, A, V, E, L**	**P, T, E**	**M, N**	**X**	**T, P, M**	**X**		
Middlesex	**LCRVCOG**	**Chester**	**P, S, AS**	**E (roadway), V, A/O (open space acquisition), R**	**P, D, M, T**	**M**	**X**	**T, P**	**X**		

Middlesex	**LCRVCOG**	**Clinton**	**S, P, AS**	**R, E, A (V zones), V**	**P, D, M, T**	**N, M**	**X**	**P, T, M**	**X**		
Middlesex	**LCRVCOG**	**Cromwell**	**AS, P, O (budget for deadfall removal)**	**E (River Road, Riversedge Drive), R, O (support residents seeking funding to elevate homes), V**	**E**	**N (Levee, River Road), M**	**X**	**P, T, M**	**X**		Raise road or build levee in River Road area to reduce residential flooding
Middlesex	**LCRVCOG**	**Deep River**	**S, P, AS**	**A, R, V, E (encourage)**	**D, M, P, T**	**M, N**	**X**	**P, T**	**X**		
Middlesex	**LCRVCOG**	**Durham**	**AS, P, O (budget for deadfall removal)**	**V, E (roadways), L (relocate EOC)**	**E, D, P**	**N, M**	**X**	**P, T, M**	**X**		
Middlesex	**LCRVCOG**	**East Haddam**	**P, O (budget for deadfall removal)**	**V, A (study 7 properties to acquire for CT River open space)**	**E**	**M**	**X**	**P, M**	**X**		Study acquistion of seven floodprone properties along CT River to convert to open space
Middlesex	**LCRVCOG**	**East Hampton**	**AS, P, O (budget for deadfall removal)**		**E, D, M, P**	**N**	**X**	**P, M**	**X**		
Middlesex	**LCRVCOG**	**Essex**	**S, P, AS**	**R, A (when possible), V, E**	**D, M, P, T**	**M**	**X**	**P, T**	**X**		
Middlesex	**LCRVCOG**	**Haddam**	**P, O (budget for deadfall removal), S**	**V, E (roadways), L (Town Garage)**	**D, E, M, P**	**N**	**X**	**P, M**			
Middlesex	**LCRVCOG**	**Killingworth**	**P, AS, S**	**R, V**	**D, M, P, T**	**M**	**X**	**P**	**X**		
New London	**LCRVCOG**	**Lyme**	**P, S, AS**	**V, R, A**	**D, M, P, T, E**	**M**	**X**	**P, T**	**X**		
Middlesex	**LCRVCOG**	**Middlefield**	**AS, P, O (budget for deadfall removal)**	**V (drainage study of Lake Road); E (elevate Lake Road)**	**E, P**	**N**			**X**		Installation of larger culverts or elevate Lake Road, the only access to hundreds of homes in Lake Beseck area
Middlesex	**LCRVCOG**	**Middletown**	**P, O (budget for deadfall removal), S**	**L (Fire Station, bus station, etc.), E (RLPs), A, V**	**D, E, P**	**O (Roth Wellfield upgrades, relocate WWTP), M, N**	**X**	**P, M**	**X**		City to buyout five properties on Nejako Drive with conversion to open space
New London	**LCRVCOG**	**Old Lyme**	**P, S, AS**	**R, V, A, E**	**D, M, P, T**	**M**	**X**	**P, M**	**X**		
Middlesex	**LCRVCOG**	**Old Saybrook**	**P, S, AS**	**E , R, V, L (utilities), O**	**P, D, M, T, E**	**N, M**	**X**	**T, P, M**	**X**		Construct public pool to enhance swimming ability of emergency responders and residents! (encourage elevation of RLPs, elevate infrastructure); (develop plan on how to handle RL properties that want a buyout)
Middlesex	**LCRVCOG**	**Portland**	**P, O (budget for deadfall removal), AS**		**E, D, M, T, P**	**V**	**X**	**P, M**	**X**		
Middlesex	**LCRVCOG**	**Westbrook**	**S, P, AS**	**R, V, A, E**	**D, M, P, T**	**M**	**X**	**P, T, M**	**X**	**X, but status recinded**	
New Haven	SCRCOG	Bethany	P, S, O	**O**	**E, D, O**	**M, O**					As part of the ongoing project to replace the hanger at the old airport on Amity Road, ensure capabilities exist for the new structure to be used as a local community emergency shelter. This should include backup generator power and necessary facilities for overnight stays .
New Haven	SCRCOG	Branford	S	**A**		**M, O**					Flood gates for cattle crossing on Meadown Street
New Haven	SCRCOG	East Haven	P, S	**A, E, R, V, O**	**E, P, O**	**M, O**	**X**	**T, M, P, O**	**X**	**X**	Investigate funding sources and feasibility of elevating portions of Town-owned roads with an emphasis on those needed for inland evacuation.
New Haven	SCRCOG	Guilford	P, AS, O	**A, L, E, R**	**T, E, M, D, P**	**N, M**	**X**	**T, M, P, O**	**X**	**X**	Construct pile-supported walkways where foot traffic is exacerbating erosion.
New Haven	SCRCOG	Hamden	P, O	**V**	**M, D, P**	**N, M**	**X**	**M, P**			Develop an action plan to significantly increase tree planting, caring for these newly planted trees (including watering when necessary), and protecting our existing healthy trees. Emphasize the essential services that trees provide, which includes natural hazard risk reduction.
New Haven	SCRCOG	Madison	P, AS, S	**R, O**	**E, M, D, P**	**M, N**		**P**	**X**		Adopt a five-year 'look back period' to further efforts to bring non-complying structures into compliance with the FEMA construction standards.

New Haven	**SCRCOG**	**Meriden**	**P, AS, S**	**A, L, V, O**	**D, O**	**N**	**X**	**T, O**	**X**	**No**	Continue the Harbor Brook Flood Mitigation Improvements, broken into specific upcoming project phases
New Haven	SCRCOG	Milford	P, AS	**V**	**D, M, P, T**	**N, M**	**X**	**P**	**X**	**X**	Coastal resiliency plan and permitting project for sand replenishment and outfall replacement /repair.
New Haven	SCRCOG	New Haven	P, AS, S, O	**R, V, L, A, E**	**T, E, D, M,**	**N, M**	**X**	**P,**	**X**		Installation of green infrastructure within the downtown drainage area to alleviate pressure on the storm sewer system
New Haven	SCRCOG	North Branford	S	**A, E**	**T, E**	**M, N**	**X**	**T, M, P**			Increase public awareness regarding the potential for flooding, the areas to be affected, the need for and availability of flood insurance.
New Haven	SCRCOG	North Haven	P	**O**	**E**			**T, P**			Public Education on Dumping in Streams and Other Drainage Systems
New Haven	SCRCOG	Orange	O	**O**	**O**	**M**					Hold EMAC meetings once a month to include discussions on mitigation planning.
New Haven	SCRCOG	Wallingford	AS	**O**	**T, E**	**M**					Install emergency generator at the Well No. 1 production well to maintain water supply to the Town's system during power outages.
New Haven	SCRCOG	West Haven	S	**A, E, O, R**	**T**	**M, N, O**	**X**	**O**		**X**	Perform education and training programs for municipal personnel and staff to identify nexuses between their areas of responsibility and coastal resilience
New Haven	SCRCOG	Woodbridge		**V, O**	**E**	**O**		**O**	**X**		review and validate the data for repetitive loss properties, analyze the causes of flooding and evaluate potential mitigation strategies. This may include an outreach project to inform owners of potential financial assistance for flood mitigation projects.
New London	**SCCOG**	**Bozrah**	**P, AS, S**	**R, V**	**T, E, D, M, P**	**N, M**	**X**	**P, T**	**X**		
New London	**SCCOG**	**Colchester**	**P, AS, S**	**R, V**	**T, E, D, M, P**	**N, M**	**X**	**P, T**	**X**		Work with the homeowners at the end of Caverly Mill Road to formally abandon the road and convert it into a private driveway. The town will continue to warn the two homeowners prior to significant storms of the likelihood of flooding. This recommendation remains from the 2005 Hazard Mitigation Plan Annex, but was mistakenly referred to as the "Savin's Pond" bridge
New London	**SCCOG**	**East Lyme**	**P, AS, S**	**R, V, A, E**	**T, E, D, M, P**	**N, M**	**X**	**P, T**	**X**	**X**	Consider removing a small dam located between Route 1 and Interstate 95 on Latimer Brook if lowering the water surface elevation will help reduce flooding along Route 1
New London	**SCCOG**	**Franklin**	**P, AS, S**	**R, V**	**T, E, D, M, P**	**N, M**	**X**	**P, T**	**X**		
New London	**SCCOG**	**Griswold**	**P, AS, S**	**R, V**	**T, E, D, M, P**	**N, M**	**X**	**P, T**	**X**		Pursue HMGP funding to construct a flood wall around the WWTP to resolve inundation issues;
New London	**SCCOG**	**Groton (City)**	**P, AS, S**	**R, V, A, E**	**T, E, D, M, P**	**N, M**	**X**	**P, T**	**X**		In order to protect areas with marina uses (and preclude heavier marine commercial or industrial uses), consider establishing a new recreational boating zoning classification that would prevent replacing water-dependent uses with residential uses;
New London	**SCCOG**	**Groton (Town)**	**P, AS, S**	**R, V, A, E**	**T, E, D, M, P**	**N, M**	**X**	**P, T**	**X**		Work with the City of Groton to create an open space corridor along Birch Plan Creek (called the "Greenbreak") and add land to the existing Birch Plain Creek Park; Install appropriately designed flood/tide gates at locations such as Groton Long Point and Mumford Cove, with considerations for sea level rise built into the design
New London	**SCCOG**	**Lebanon**	**S, P, O (increase money for tree maintenance), AS**	**E, A, R, V**	**E, D, M**	**M, N**	**X**	**P, O (public access cable channel broadcasts),**	**X**		
New London	**SCCOG**	**Ledyard**	**P, AS, S**	**R, V**	**T, E, D, M, P**	**N, M**	**X**	**P, T**	**X**		
New London	**SCCOG**	**Lisbon**	**P, AS, S**	**R, V**	**T, E, D, M, P**	**N, M**	**X**	**P, T**	**X**		
Unaffiliated	**SCCOG**	**Mashantucket Pequot Tribal Nation**	**P, AS, S**	**R, V**	**T, E, D, M, P**	**N, M**	**X**	**P, T**	**X**		

		Mohegan Tribe	**P, AS, S**	**R, V**	**T, E, D, M, P**	**N, M**	**X**	**P, T**	**X**		
New London	**SCCOG**	**Montville**	**P, AS, S**	**R, V**	**T, E, D, M, P**	**N, M**	**X**	**P, T**	**X**		
New London	**SCCOG**	**New London**	**P, AS, S**	**R, V, A, E**	**T, E, D, M, P**	**N, M**	**X**	**P, T**	**X**		Relocate the Fire Department headquarters from the flood zone; Pursue improvements to the Shaw's Cove pumping system to allow greater flood control through stormwater pumping
New London	**SCCOG**	**North Stonington**	**P, AS, S**	**R, V**	**T, E, D, M, P**	**N, M**	**X**	**P, T**	**X**		
New London	**SCCOG**	**Norwich**	**P, AS, S**	**R, V, A, E**	**T, E, D, M, P**	**N, M**	**X**	**P, T**	**X**		Pursue grant funding for the acquisition of Nutmeg Company, Inc. along the Yantic River and other commercial properties adjacent to the Yantic River and convert the properties to open space; Remove the Upper Falls dam on the Yantic River to eliminate backwater at Sherman Street during flood conditions;
New London	**SCCOG**	**Preston**	**P, AS, S**	**R, V, A, E**	**T, E, D, M, P**	**N, M**	**X**	**P, T**	**X**		
New London	**SCCOG**	**Salem**	**P, AS, S**	**R, V**	**T, E, D, M, P**	**N, M**	**X**	**P, T**	**X**		Pursue funding to install floodproofing measures, including elevations, acquisitions, and/or flood walls, to resolve the inundation problem affecting the area behind the "Salem Town Center" strip mall at the southwest corner of Routes 82 and 85 is in the SFHA of Harris Brook;
New London	**SCCOG**	**Sprague**	**P, AS, S**	**R, V**	**T, E, D, M, P**	**N, M**	**X**	**P, T**	**X**		Pursue funding sources for the addition of a generator for the village of Hanover Sewer Pumping Station; Consider options available to elevate wells in the Sprague Water and Sewer Authority wellfield above the Shetucket River SFHA elevation; Look to acquire an additional approximate 230 acres to add to its approximate 630 acres of open space
New London	**SCCOG**	**Stonington (Borough)**	**P, AS, S**	**R, V, A, E**	**T, E, D, M, P**	**N, M**	**X**	**P, T**	**X**	**X**	
New London	**SCCOG**	**Stonington (Town)**	**P, AS, S**	**R, V, A, E**	**T, E, D, M, P**	**N, M**	**X**	**P, T**	**X**	**X**	Consider investigating the scale and cost of a large-scale diking project to protect Mystic from inland and coastal flooding
New London	**SCCOG**	**Waterford**	**P, AS, S**	**R, V, A, E**	**T, E, D, M, P**	**N, M**	**X**	**P, T**	**X**	**X, Joining CRS Recommended**	Replace culverts and/or elevate sections of Gardiners Wood Road, Route 156, Route 213, Braman Road, Oil Mill Road, Niles Hill Road, and Boston Post Road;
Windham	**SCCOG**	**Windham**	**S, P**	**E, A, R, V**	**E**	**M, N**	**X**	**P, T**	**X**		
Tolland	**CRCOG**	**Andover**	**AS, P**		**D, M, T, E, P**		**X**	**T, M, P**			
Tolland	**CRCOG**	**Bolton**	**AS**	**V, L (power lines)**	**P, E**	**N, M**		**T, M, P**			
Tolland	**CRCOG**	**Ellington**		**V, R**	**E, P**	**N, M**	**X**	**M, P**			
Tolland	**CRCOG**	**Hebron**	**P**	**O (encourage dry hydrants), R**	**P, D**	**N, M**	**X**	**P**	**X**		
Tolland	**CRCOG**	**Somers**	**P**	**O (encourage new developments to include generators), R (dry hydrants and cisterns)**	**P (increase sheltering capacity)**	**O (implement recommendations of Somers Floodplain Management Study), M**	**X**	**P**	**X**	**Joining CRS Recommended**	
Tolland	**CRCOG**	**Stafford**	**AS, P**	**O (encourage dry hydrants), R**	**T, E, D, P**	**N, M**	**X**	**T, M, P**	**X**		
Tolland	**CRCOG**	**Tolland**	**O (increase funding for tree maintenance), P**	**V, R, A**	**E, P, D**	**N, M**	**X**	**T, P, M**	**X**	**Joining CRS Recommended**	
Tolland	**CRCOG**	**Vernon**	**P, AS**	**V**	**E**	**N**		**T, P, M**	**X**	**Joining CRS Recommended**	
Tolland	**WRCOG**	**Columbia**	**S, P, AS**	**E, A, R, V**	**E, D, M**	**M, N**	**X**	**P**	**X**		
Tolland		**Coventry**	**S, P, AS**	**E, A, R, V**	**E, D, M**	**M, N**	**X**	**P, O (public access cable channel broadcasts), T**	**X**		

Tolland		**Mansfield**	**S, P, (increase money for tree maintenance), AS**	**E, A, R, V**	**E, D, M, P, T**	**M, N**	**X**	**P, O (public access cable channel broadcasts), T**	**X**		
Tolland		**Willington**	**S, P**	**E, A, R, V**	**E, D, M**	**M, N**	**X**	**P**			
Windham	NECCOG	Ashford	P	**R, V**	**P, M, D, T, E**	**M**	**X**	**T**	**X**		NECCOG staff provides professional engineering services to Ashford, Brooklyn, Canterbury, Pomfret and Putnam, as well as hired land use planning, comprehensive planning, regulation drafting and GIS assistance to all of its member towns, all in order to aid in haz mitigation efforts while reducing municipal costs of additional staffing.
Windham	**NECCOG**	**Brooklyn**	**P**	**R, V**	**P, M, D, T, E**	**M**	**X**	**T**	**X**		NECCOG staff provides professional engineering services to Ashford, Brooklyn, Canterbury, Pomfret and Putnam, as well as hired land use planning, comprehensive planning, regulation drafting and GIS assistance to all of its member towns, all in order to aid in haz mitigation efforts while reducing municipal costs of additional staffing.
Windham	**NECCOG**	**Canterbury**	**P**	**R, V**	**P, M, D, T**	**M**	**X**	**T**	**X**		NECCOG staff provides professional engineering services to Ashford, Brooklyn, Canterbury, Pomfret and Putnam, as well as hired land use planning, comprehensive planning, regulation drafting and GIS assistance to all of its member towns, all in order to aid in haz mitigation efforts while reducing municipal costs of additional staffing.
Windham	**WRCOG**	**Chaplin**	**S, P, O (increase funding for tree maintenance), AS**	**E, A, R, V**	**E, D, M**	**M, N**	**X**	**P, O (public access cable channel broadcasts), T**	**X**		
Windham	**NECCOG**	**Eastford**	**P**	**R, V**	**P, M, D, T**	**M, N**	**X**	**T**	**X**		
Windham	**NECCOG**	**Hampton**	**S, P, AS**	**E, A, R, V**	**E**	**M, N**	**X**	**P**	**X**		
Windham	**NECCOG**	**Killingly**	**P**	**R, V**	**P, M, D, T**	**M**	**X**	**T**	**X**		
Windham	**NECCOG**	**Plainfield**	**P**	**R, V**	**P, M, D, T**	**M**	**X**	**T**	**X**		
Windham	**NECCOG**	**Pomfret**	**P**	**R, V**	**P, M, D, T, E**	**M**	**X**	**T**	**X**		NECCOG staff provides professional engineering services to Ashford, Brooklyn, Canterbury, Pomfret and Putnam, as well as hired land use planning, comprehensive planning, regulation drafting and GIS assistance to all of its member towns, all in order to aid in haz mitigation efforts while reducing municipal costs of additional staffing.
Windham	**NECCOG**	**Putnam**	**P**	**R, V**	**P, M, D, T, E**	**M**	**X**	**T**	**X**		NECCOG staff provides professional engineering services to Ashford, Brooklyn, Canterbury, Pomfret and Putnam, as well as hired land use planning, comprehensive planning, regulation drafting and GIS assistance to all of its member towns, all in order to aid in haz mitigation efforts while reducing municipal costs of additional staffing.
Windham	**NECCOG**	**Scotland**	**S, P**	**E, A, R, V**	**E**	**M, N**	**X**	**P**			
Windham	**NECCOG**	**Sterling**	**P**	**R, V**	**P, M, D, T, E**	**M, N**	**X**	**T**	**X**		
Windham	**NECCOG**	**Thompson**	**P**	**R, V**	**P, M, D, T**	**M, N**	**X**	**T**	**X**		
Tolland	**NECCOG**	**Union**	**P**	**R, V**	**P, M, D, T**	**M**	**X**	**T**	**X**		
New London	**NECCOG**	**Voluntown**	**P, AS, S**	**R, V**	**T, E, D, M, P**	**N, M**	**X**	**P, T**	**X**		
Windham	**NECCOG**	**Woodstock**	**P**	**R, V**	**P, M, D, T**	**M, N**	**X**	**T**	**X**		

Mitigation Strategy
Appendix 5

APPENDIX 5-1. MITIGATION PRIORITIZATION CRITERIA

APPENDIX 5-2. MITIGATION ACTIVITIES TRACKER FOR 2013 - 2016

APPENDIX 5-3. REPORT ON PAST CT NHMP ACTIVITIES

Appendix 5-1. Mitigation Prioritization Criteria

S Social	• Is the proposed action socially acceptable to the community(s)? • Are there equity issues involved that would mean that one segment of a community is treated unfairly? • Will the action cause social disruption?
T Technical	• Will the proposed action work? • Will it create more problems than it solves? • Does it solve a problem or only a symptom? • Is it the most useful action in light of other community(s) goals?
A Administrative	• Can the community(s) implement the action? • Is there someone to coordinate and lead the effort? • Is there sufficient funding, staff, and technical support available? • Are there ongoing administrative requirements that need to be met?
P Political	• Is the action politically acceptable? • Is there public support both to implement and to maintain the project?
L Legal	• Is the community(s) authorized to implement the proposed action? Is there a clear legal basis or precedent for this activity? • Are there legal side effects? Could the activity be construed as a taking? • Is the proposed action allowed by a comprehensive plan, or must a comprehensive plan be amended to allow the proposed action? • Will the community(s) be liable for action or lack of action? • Will the activity be challenged?
E Environmental	• How will the action affect the environment? • Will the action need environmental regulatory approvals? • Will it meet local and state regulatory requirements? • Are endangered or threatened species likely to be affected?
E Economic	• What are the costs and benefits of this action? • Do the benefits exceed the costs? • Are initial, maintenance, and administrative costs taken into account? • Has funding been secured for the proposed action? If not, what are the potential funding sources (public, non-profit, and private)? • How will this action affect the fiscal capability of the community(s)? • What burden will this action place on the tax base or local economy? • What are the budget and revenue effects of this activity? • Does the action contribute to other community goals, such as capital improvements or economic development? • What benefits will the action provide?

Worksheet #4 Evaluate Alternative Mitigation Actions step 2

1. *Fill in the goal and its corresponding objective. Use a separate worksheet for each objective. The considerations under each criterion are suggested ones to use; you can revise these to reflect your own considerations (see Table 2-1).*
2. *Fill in the alternative actions that address the specific objectives the planning team identified in Worksheet #1.*
3. ***Scoring:** For each consideration, indicate a plus (+) for favorable, and a negative (-) for less favorable.*

When you complete the scoring, negatives will indicate gaps or shortcomings in the particular action, which can be noted in the Comments section. For considerations that do not apply, fill in N/A for not applicable. Only leave a blank if you do not know an answer. In this case, make a note in the Comments section of the "expert" or source to consult to help you evaluate the criterion.

Goal: _____

Objective: _____

STAPLEE Criteria	S (Social)		T (Technical)			A (Administrative)			P (Political)			L (Legal)			E (Economic)				E (Environmental)				
Considerations → for Alternative Actions ↓	Community Acceptance	Effect on Segment of Population	Technical Feasibility	Long-term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/ Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenge	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land/ Water	Effect on Endangered Species	Effect on HAZMAT/ Waste Sites	Consistent with Community Environmental Goals	Consistent with Federal Laws

Source: **Federal Emergency Management Agency. 2003. *State and Local Mitigation Planning How-To Guide: Developing the Mitigation Plan – Identifying Mitigation Actions and Implementation Strategies.* FEMA.** http://www.fema.gov/fima/planning_howto3.shtm

Appendix 5-2. Mitigation Activities Tracker for 2013 - 2016

Activity #	Goal / Strategy	Activity Description	Lead Agency	Support Agencies	Estimated Cost	Potential Funding Sources	Timeframe for Completion	Tropical Cyclone	Tornado	Thunderstorm	Winter Storm	Flood	Dam Failure	Wildland Fire	Drought	Earthquake	Climate Change	Priority Level	Status
1	1.1	Review model ordinances and samples of higher standards language that communities can adopt into existing floodplain ordinances and building codes.	DEEP - Land and Water Resources Division / DCS	COGs	Staff time	Agency Operating Budgets	Evaluate annually					X					X	High	
2	1.1	Conduct technical transfer and training associated with current extreme rainfall data.	USDA / Natural Resources Conservation Service		Staff time	Agency Operating Budgets	1-2 years					X	X				X	Low	
3	1.1	Conduct technical transfer and training associated with available LiDAR data.	USDA / Natural Resources Conservation Service	DEEP / LWRD	Staff time	Agency Operating Budgets	1-2 years					X						Low	
4	1.1	Encourage municipalities to adopt local water use restriction ordinances to ensure that proper water conservation measures are implemented during periods of severe to extreme drought and other water emergencies, in line with the Connecticut Drought Preparedness and Response Plan. Expand the local focus on drinking water vulnerability, with a particular emphasis on private wells.	DPH / Drinking Water Section	Water Planning Council / COGs	Staff time; minimal expense for outreach materials	Agency Operating Budgets	During onset of drought conditions								X			High	

5	1.1	Launch an outreach campaign to promote FEMA's Community Rating System (CRS) as a means for local communities to soften the likely increase in many flood insurance policy rates resulting from new reforms to the National Flood Insurance Program (NFIP) enacted by Federal Legislation.	DEEP - Land and Water Resources Division	USACE / Silver Jackets	Staff time; minimal expense for outreach materials	Agency Operating Budgets	1 Year					X							High	
6	1.1	Encourage local hazard mitigation plans to consider continuity of agricultural operations during and following hazard events.	DESPP / Emergency Management and Homeland Security		Staff time; minimal expense for outreach materials	Agency Operating Budgets	1-5 years, initiated at each updated plan review				X				X		X		Low	
7	1.2	Communicate the importance of natural hazard mitigation to agricultural producers through the Department of Agriculture's weekly newsletter. This would consist of articles with links to useful websites such as DEEP and “ReadyAg” (available from PSU website).	DAG / Bureau of Agricultural Development & Resource Preservation / COGs / Working Lands Alliance		Staff time; minimal expense for outreach materials	Agency Operating Budgets	6 months, then annually thereafter	X	X	X	X	X	X	X	X	X	X		Low	
8	1.2	Develop a body of customizable presentations, social media templates, Flood Insurance factsheets and short workshop educational materials that could be utilized on a scheduled basis. While these could be developed for multiple hazards, the emphasis of this activity is on flood mitigation and climate change adaptation.	Connecticut Association of Flood Managers / DEEP - Land and Water Resources Division	DEEP Land and Water Resources Division / USACE / Silver Jackets / CT Insurance Department	Staff time; minimal expense for outreach materials	Agency Operating Budgets	1 year, then 1 presentation annually					X						X	High	
9	1.2	Investigate the possibility of holding the CFM exam and CFM courses on an annual basis for interested persons.	Connecticut Association of Flood Managers	DEEP/LWRD	Staff time	Agency Operating Budgets	Annually					X							Low	

10	1.2, 1.3, 3.2	Develop educational tools to inform decision makers on the value of acquiring, maintaining, and increasing climatological data collection, including hydrologic (e.g. stream gage) data, and the continuation of the Land and Water Resources Division (previously OLISP) sentinel monitoring program to help provide early warning of climate change impacts. Communicate with USGS to maintain monitoring systems. This activity is linked to Activity #28.	CHMC and Water Planning Council / CIRCA	DEEP / Land and Water Resources Division / SAFR	Staff time; minimal expense for outreach materials	Agency Operating Budgets	1-2 years	X	X	X	X	X			X		X	Medium	
11	1.3	Continue to mitigate and reduce the number of repetitive loss properties. As noted in this plan, CT will do the following: Seek Federal funds to mitigate through elevation and acquisition, RL and SRL properties; Encourage sub applicants to prioritize RL and SRL properties; As grantee, give priority to RL and SRL properties; When BCAs of RL and SRL property applications are even, priority ranking will be given to RL and SRL properties; Identify outside funding for mitigating RL and SRL properties; Continue to advocate for NRCS and State Bond Funding for mitigating RL and SRL properties; Communicate acquisition process to municipalities; and Assist municipalities with Benefit Cost Analysis for RL and SRL properties	DESPP / Emergency Management & Homeland Security	DEEP / Land and Water Resources / Flood Management Section	$20-40k	FEMA (FMA, PDM, or HMGP); in-kind staff resources	1-2 years					X						High	

12	2.1	Develop implementation strategy for Public Act 13-15, which requires consideration of the ways in which a water pollution control project mitigates the effects of sea level rise. The Act also requires that the list of priority water quality projects include the necessity and feasibility of implementing measures designed to mitigate the impact of a rise in sea level over the projected life span of such project.	DEEP / Municipal Water Pollution Control Section	DEEP / Land and Water Resources Division / OPM / DAS	Staff Time	CT Clean Water Fund	1-2 years	X				X						X	Medium	
13	2.1	Develop project category priorities for hazard mitigation funding administered by the State regardless of funding source, and then design consistent evaluation criteria to be used during application reviews for various programs as required (i.e., HMGP Administrative Plan), recognizing there will be differences in program eligibility, etc.	DESPP / Emergency Management & Homeland Security / CT Interagency Hazard Mitigation Committee	DAS / Division of Construction Services / DEEP / DOH	Staff time	Agency Operating Budgets	Annually and post-disaster, whichever is more frequent	X	X	X	X	X	X	X	X	X	X	High	
14	2.1	Through communications with other state agencies and communities with FEMA-approved Natural Hazard Mitigation Plans, develop a list of potential mitigation projects that can be maintained and assessed for further development upon availability of funding sources. This will also help assist in future NHMP planning by identifying when areas and facilities of concern exist, and developing metrics ahead of time.	DESPP / Emergency Management & Homeland Security	DAS / Division of Construction Services / DOH / COGs	Staff time	Agency Operating Budgets	Annually and post-disaster, whichever is more frequent, and routinely during plan reviews	X	X	X	X	X	X	X	X	X	X	High	
15	2.2	Acquire and install emergency backup generators and/or renewables and alternate energy sources at state-owned critical facilities and gas stations.	DAS / Division of Construction Services	DEEP / OPM / Department of Consumer Protection / DOT	<$75k/ generator	FEMA (HMGP)	5 years	X	X	X	X	X	X	X	X	X	X	High	

16	2.2	Conduct phragmites control/invasive plant control (herbicide and mowing) on state-owned land tidal and freshwater marshes to reduce fuel load and wildfire risk in tidal areas for three year period to control this invasive species. Reduce phragmites by 50% in year one; 40% in year two; 10% in year three with 100% reduction after three years.	DEEP / Bureau of Natural Resources	DAS / Division of Construction Services / DOT	$600/acre. Total estimated cost is $2.7 million over three years	Annual Operating Budgets	3 years							X				Low	
17	2.3	Continue to direct communities to tools to support improved local vulnerability and risk assessments to support hazard mitigation planning and the development of fundable hazard mitigation projects including RL and SRL acquisitions. Build on successful delivery of online Adaptation Resource Toolkit (ART) and maintain related training workshops.	DESPP / Emergency Management & Homeland Security	DEEP / Land and Water Resources / Flood Management Section	Staff time	Agency Operating Budgets, Federal Grants	1-3 years	X	X	X	X	X	X	X	X	X	X	Medium	
18	2.3	Convene a forum of state agencies to coordinate and evaluate gaps in policies and in climatalogical data, to establish priorities, and to identify strategies to secure funding for necessary enhancements. This activity is linked to Activity #10.	SAFR	DEEP / Land and Water Resources, Water Planning Council / CIRCA	Staff time	Agency Operating Budgets	1 year	X	X	X	X	X	X	X	X		X	Medium	
19	2.3	Promote the capture and use of hydrologic monitoring data for improved Benefit-Cost Analysis (BCA) model population at the state and local level (e.g. high water marks, gauge data, historical damages from all events, recurrence intervals, etc.). Also, expand efforts to include similar data for other hazards, and include the quantification of	DESPP / Emergency Management & Homeland Security	USGS / DEEP	Staff Time	Agency Operating Budgets	Annually, or, as data becomes available and in conjunction with BCA reviews					X						Medium	

		environmental benefits (according to FEMA Mitigation Policy #FP-108-024-01) to increase Benefit to Cost Ratios for eligible projects.																		
20	2.3	Assist owners/operators of critical facilities, such as municipal water pollution control facilities (WPCFs), and emergency facilities, to pursue grant funds to relocate, flood proof, or otherwise protect electrical and mechanical systems to minimize or eliminate service disruption during and after potential hazard events.	DEEP- Land and Water Resources Division	Municipalities / COGs	Staff time	Agency Operating Budgets	Conduct outreach on an annual basis, and incorporate into all notifications of funding availability	X			X	X					X	High	
21	2.4	Create a central repository and web-based portal dedicated to identifying and procuring funding from all available sources. This activity is linked to Activity #17 and Activity #22.	Governor's Office / OPM	LTR Committee	Staff time	Agency Operating Budgets	1 year	X	X	X	X	X	X	X	X	X	X	Low	
22	2.4	Through working with the CT IHMP Planning Team, develop a list of potential funding sources available on a state and federal level for natural hazards mitigation planning activities and projects with emphasis on RL and SRL properties. This activity is linked to Activity #21.	DESPP / Emergency Management & Homeland Security	DEEP / Land and Water Resources / Flood Management Section / LWRD / DOT	Staff time	Agency Operating Budgets	1 year	X	X	X	X	X	X	X	X	X	X	Low	

23	2.4	Assist communities and state agencies to pursue funding opportunities to develop advanced research and plans in the area of natural hazards mitigation. Planning activities included under this section would be: standalone plans which can assist in enhancing existing Natural Hazards Mitigation Plans (e.g., debris management plans, evacuation and sheltering plans, hazards studies and evaluations (including recommendations) which are not part of existing approved plans). Promote comprehensive inclusion and connectivity of state, regional, and local hazard mitigation planning, to help strengthen coordination and incorporation of ideas and BMPs and avoid conflicts between various planning efforts.	DESPP / DEMHS	DEEP / Land and Water Resources Division	Staff time	Agency Operating Budgets	1-3 years, in sync with review or EM and MT plans, and during CAVs, workshops and other outreach activities	X	X	X	X	X	X	X	X	X	X	Low	
24	2.4	Encourage communities to pursue funding opportunities to develop FEMA approved Natural Hazards Mitigation Plans which promote addressing RL and SRL properties as well as the integration of climate adaptation strategies with conventional hazard mitigation techniques.	DEEP	DESPP / Emergency Management & Homeland Security; DEEP / Land and Water Resources Division	Staff time	Agency Operating Budgets	1-5 years as plan updates are completed and reviewed	X	X	X	X	X	X	X	X	X	X	High	
25	2.5	Maintain a tracking system of submitted FEMA grant project/planning applications, to help analyze the types of projects and the mitigation needs that continue to exist within the State. This Activity is linked to Activity #27.	DESPP / Emergency Management & Homeland Security		$60-80k	FEMA (HMGP)	1-2 years	X	X	X	X	X	X	X	X	X	X	Low	

26	2.5	Develop an evaluation process and implement said process to measure the results from the implementation of various activities as listed in the State NHMP.	DEEP / SAFR / CIRCA	DESPP / DEMHS	Staff time	Agency Operating Budgets	1 year	X	X	X	X	X	X	X	X	X	X	Low	
27	3.1	Continue planning and development of a database to assist with the storage and maintenance of risk and hazard information from local and multi-jurisdictional hazard mitigation plans. This Activity is linked to Activity #25.	DEEP / OPM	CIRCA / COGs	Staff time	Agency Operating Budgets	1-5 years, with annual assessment during plan monitoring	X	X	X	X	X	X	X	X	X	X	Low	
28	3.1	Encourage municipalities and COGs to conduct watershed-based hydrologic and hydraulic studies to evaluate potential flood mitigation alternatives along river and stream corridors.	DEEP- Land and Water Resources Division	University pf Connecticut / COGs	Staff time	State Bond Funds or other sources – although funding for implementation will have to be sought	1-5 years					X						Low	
29	3.1	Develop a system to facilitate the rapid capture, delivery, and documentation of post-storm impacts to coastal areas by local teams and citizens in the field and develop an interactive webpage or other medium for collecting flood information from the general public or other entities. This would include photos and other types of information which would be a valuable asset in documenting impacts from natural hazards, collected through various means such as social networking. Use the latest technology, such as iPads and community GIS, to support these initiatives.	DEMHS	DEEP / Land and Water Resources / Flood Management Section; DESPP / Emergency Management & Homeland Security	Staff time	Agency Operating Budgets	2 years	X			X	X					X	Medium	

30	3.1	Upon completion of DOT's systems-level vulnerability assessment in support of the Climate Change and Extreme Weather pilot project in Litchfield County, repeat the process in the remainder of the state. This activity is linked to Activity #32.	DOT	HUA / Uconn	High	FHWA	5 years			X		X					X	Low	
31	3.1	Increase hydrologic monitoring in the state relative to precipitation, surface groundwater, and tidal gauges to enhance the statewide data collection effort and improve long term trend analysis for climate change assessments, predictive modeling and hazard mitigation. Communicate with USGS to maintain monitoring stations. This activity is linked with Activity #35.	CIRCA	U.S.G.S	High	Legislative Appropriation	5 years					X			X			X	Low	
32	3.1	Develop updated/improved storm surge hazard modeling to supplement sea level rise inundation scenarios. Share this modeling with state agencies and municipalities.	CIRCA	DESPP / Emergency Management & Homeland Security; DEEP – Land and Water Resources Division	Staff time	Agency Operating Budgets / $1 Million for Study $300K?	3 years	X			X								Medium	
33	3.1	Use shoreline transect data to map coastal erosion zones and develop applicable outreach products.	DEEP		Staff time	Agency Operating Budgets	3 years					X						X	Low	
34	3.1	Continue to identify head-of-tide habitat within Connecticut and monitor the change in this habitat due to climate change through sentinel monitoring in order to determine those communities that may endure increased risk from coastal storms and associated flooding. LWRD is currently funding multiple monitoring and data	DEEP - Land and Water Resources Division – Coastal Resources Section		Staff time	Agency Operating Budgets	1-2 years					X						X	Low	

		synthesis projects in support of this activity.																	
35	3.1	Identify and map the locations of headwater, main stem and coastal dams, culverts, bridges, and other structures or land modifications that contribute to flood damage and act as barriers to habitat connectivity, and assess the feasibility of removal or modification of these structures. This activity is linked to Activity #55.	DEEP - Land and Water Resources Division		Staff time	Agency Operating Budgets	3 years					X						Medium	
36	3.1	Create a database of survey elevation points in coastal areas.	DOT		Medium	Agency Operating Budgets	3 years	X				X					X	Medium	
37	3.2	Create a literature review of various FEMA publications to be placed on CT DEEP's flood management webpage. Include a short description of the publication and a direct link for convenient downloading of the document, or a note to contact CT DEEP's Flood Management Section to obtain a copy.	DEEP - Land and Water Resources Division	DEMHS	Staff time	Agency Operating Budgets	3-5 years					X					X	Low	
38	3.2	Finalize StormSmart Coasts CT site and perform outreach to encourage use by local communities and others to reduce risk.	DEEP - Land and Water Resources Division		Staff time	Agency Operating Budgets	2 years	X			X	X					X	Low	

39	3.3	In coordination with local communities, recommend categorical (e.g., wastewater, energy) and site-specific options for adaptation from the projected impacts of climate change and occurrence of natural hazards for public infrastructure (including flood protection structures). Adaptation and hazard mitigation alternatives should include the estimated costs associated with the options evaluated to be the most viable for implementation purposes.	DEEP - Land and Water Resources Division	OPM	Staff time	Agency Operating Budgets	2-5 years					X			X		X		X	Low	
40	3.3	Encourage education and community participation in adaptation, low impact development, and flood management through existing networks and partnerships including the CT Climate Education Communication Committee. This includes coordinating LWRD's coastal community adaptation and risk mitigation work with educational place based student experiences through CT Green Leaf in K-12 to increase participation and maximize local solutions.	DEEP - Land and Water Resources Division	CT Green LEAF	Staff time	Agency Operating Budgets	1-3 years	X			X	X					X	Low	
41	3.4	Develop and deliver Micro-grid Pilot Program Trainings.	DEEP / Bureau of Energy and Technology	Utilities	$25,000	Microgrid Grant and Loan Pilot Program; participating electric utilities	2 years	X	X	X	X							Medium	
42	3.4	Coordinate with water utilities to more actively promote water conservation measures with their customers, especially now that new legislation allows them to recover revenue while	DPH / Drinking Water Section	Water Planning Council	Staff time	Agency Operating Budgets	Annually, but particularly during drought conditions or other water emergencies								X			Medium	

		encouraging conservation.																	
43	1.1, 1.4, 2.1, 2.2, 2.3, 3.3	Local School Construction Grant Program and School Safety Infrastructure Council: • Identify and assess existing public school facilities that could be impacted by natural hazards (including climate change). Correlate identified schools with the School Building Project Priority Lists; identify mitigation strategies for these projects early on in the grant process. • Should facilities be located within natural hazard areas, request an assessment of “no feasible or prudent alternative;” encourage higher design standards above minimum criteria for new schools or “renovated as new.” • For new grants involving siting a new school, provide and encourage the use of an interactive web based mapping portal for local school districts to use during site selection. Encourage early coordination with DAS Environmental Planning and GIS Services Unit. • Identify long-term climate change adaptation strategies for each structure/facility.	DAS / Office of School Facilities	DEEP / LWRD/ Flood Management Section	Staff time	Agency Operating Budgets	1-5 years		X		X	X	X				X	Medium	

44	1.1, 1.4, 2.1, 2.2, 2.3, 3.3	Sustainable State Facilities Initiative: • Identify, develop, and prioritize a plan for state facilities' potentially impacted by natural hazards (including climate change). • Assess the risks in relation to the physical structures, the agency's long-term capital planning plans, building life span, etc. • Develop specific mitigation strategies for each structure/facility as part of the plan utilizing existing hazard data, identify timeframe for implementing the strategies, and include estimated mitigation costs. • Identify long-term climate change adaptation strategies for each structure/facility.	DAS / Environmental Planning & GIS Services Unit		Staff time	Agency Operating Budgets	1-5 years		X		X	X	X				X	High	
45	1.1, 1.3, 1.4, 2.2, 2.3, 3.1, 3.3	Conduct geophysical research to investigate, classify, and map soil stability and susceptibility to liquefaction during seismic events to assist with future hazard mitigation planning efforts.	DEEP / Geological Survey	USGS	$~50K/yr for 3 years	FEMA (NEHRP)	3 years from support received, with annual progress reporting					X			X	X		Medium	
46	1.3, 1.4, 2.2, 2.3, 3.1, 3.3	Improve identification of escarpments susceptible to landslide and fluvial erosion risk, utilizing geologic, soils, and elevation data. This activity will provide improved landslide and mass wasting risk estimates, to produce a more comprehensive view of landscape stability during extreme weather events and subsequent impacts.	DEEP / Geological Survey	USDA / Natural Resources Conservation Service	$40-50K	USDA, FEMA	2 years from support received, with annual progress reporting					X			X	X	X	Medium	

47	1.1, 1.3	Identify and map extent of historic underground mining operations in the State; assess reclamation and current land use relative to risk of land subsidence and mine collapse for the estimated 23 historic underground mining operations in Connecticut. Project deliverables will include georeferenced site maps and assessment reports, as well as a summary of current conditions and potential ground collapse hazards in these areas.	DEEP / Geological Survey	Office of the State Archeologist; State Historic Preservation Office	$40k	Agency Operating Budgets	12-18 months, contingent on funding and resource availability					X			X	X	X	Low	
48	1.11 .2	Promote consumer awareness of the NFIP and private flood insurance in order to mitigate against the economic impact of natural hazards.	Insurance Department		Staff Time	Agency Operating Budgets	1 year					X						Medium	
49	2.3, 3.2, 3.5	Compile recent plans that include independent climate change assessments (State Water Plan [Water Planning Council] and Drinking Water Vulnerability Assessment and Resiliency Plan [CIRCA/UConn/CT DPH]) and then use the combined resources to support the action items within those plans.	SAFR	DPH / Water	Staff Time	Agency Operating Budgets	Ongoing	X	X	X	X	X	X	X	X		X	Low	
50	1.13 .1	Evaluate slope failure, soil erosion potential, and escarpment identification hazards in Connecticut through integrated mapping.	DEEP / State Geological Society		$40k	Agency Operating Budgets	1 year					X					X	Medium	
51	2.6	Support New England Seismic Network with a new technical assistance and maintenance agreement with Weston Observatory of Boston College. This will provide local expertise and rapid response to seismic events in CT.	DEEP / State Geological Society		$45k for five years	NESEC	5 years									X		Low	

52	1.42.63.1	Integrate mitigation plan requirements and actions into other appropriate planning mechanisms such as comprehensive plans and capital improvement plans.	OPM	DESPP / DEMHS	Staff Time	Agency Operating Budgets	Annually	X	X	X	X	X	X	X	X	X	X	High	
53	1.13.1	Support mitigation projects that will result in protection of public or private property from natural hazards. Eligible projects include but are not limited to: 1. Acquisition of flood prone property 2. Elevation of flood prone structures 3. Minor structural flood control projects 4. Relocation of structures from hazard prone areas 5. Retrofitting of existing buildings, facilities, and infrastructure 6. Retrofitting of existing building and facilities for shelter 7. Critical infrastructure protection measures 8. Stormwater management improvements 9. Advanced warning systems and hazard gauging systems (weather radios, reverse-911, stream gauges, I-flows) 10. Targeted hazard education 11. Wastewater and water supply system hardening and mitigation.	CT Interagency Hazard Mitigation Committee / DESPP/DEMHS / DEEP	DCS	Staff Time	Agency Operating Budgets	Annually	X	X	X	X	X	X	X	X	X	X	High	
54	1.22.43.1	Conduct new or updated surveys of historic resources to better understand their vulnerability to natural hazards.	DECD-SHPO		Staff / Consultant Time	Agency Operating Budgets	3-years					X					X	Medium	
55	1.22.23.2	Undertake a targeted outreach of owners and stewards of historic properties to reduce the vulnerability of these assets to natural hazards.	DECD-SHPO		Staff / Consultant Time	Agency Operating Budgets	3-years					X					X	Low	

56	1.2, 1.33 .4	Develop educational materials and conduct outreach to businesses throughout the state promoting toxic chemical reduction, increased safety and use of best management practices in order to increase resilience, reduce potential for pollution from chemical releases and protect public health and the environment especially during flooding events, as well as increase continuity/viability of business operations after a hazard event..	DEEP - Pollution Prevention	DESPP/ DEMHS / Regional Emergency Planning Teams	Staff Time	Agency Operating Budgets	1 year	X		X		X	X			X	Medium	
57	1.2, 1.33 .4	Encourage COGs and municipalities to identify businesses at risk from natural hazards and promote utilizing educational materials targeted towards toxic chemical reduction, increased safety and best management practices in order to reduce contamination, mitigate impacts of natural hazards especially during flooding events, as well as increase continuity/viability of business operations after a hazard event.	DEEP - Pollution Prevention	DESPP/ DEMHS / COGs	Staff Time	Agency Operating Budgets	Annually	X		X		X	X			X	High	
58	1.32 .2, 2.4	Through the recently institutionalized Silver Jackets initiative, identify at least one to two projects for funding annually in coordination with all members.	DESPP/ DEMHS / USACE	DEEP	Staff Time	Agency Operating Budgets/ USACE	Annually	X	X	X	X	X	X	X	X	X	X	Medium	
59	1.3	Increase support for state-level cultural and natural resources initiatives to increase resiliency of cultural and natural resources from disasters. Expand SHPO resiliency-focused technical assistance project completed in 2018 to northern four counties.	DECD-SHPO	DEEP	Staff / Consultant Time	Agency Operating Budgets/ Disaster Supplementals / CIRCA	3-years	X	X	X	X	X	X	X	X	X	X	Medium	

60	1.3	Develop standards for building nature-based solutions. This activity is linked to Activity #26.	DAS / DEEP		Staff Time	Agency Operating Budgets	5-years	X	X	X	X	X	X	X	X	X	X	Low	
61	1.3	Integrate considerations of Public Health into all resilience planning and emergency response. Examples of considerations include drinking water access, widespread contamination and pollution post-natural hazard event, and debris management by municipalities.	DPH / DESPP/ DEMHS	DOT / DPW	Staff Time	Agency Operating Budgets	Annually	X	X	X	X	X	X	X	X	X	X	Medium	
62	1.2, 1.3, 1.4	Evaluate and improve CT emergency response planning. Considerations should include improvement of rapid communication regarding extreme events (with coordination with organizations such as NWS), quickly reopening blocked roads and evacuation routes, efficient and safe transportation to shelters, use of resilient corridors. Ensure effective winter storm management, including snow removal and salt use. Focus on vulnerable populations in all emergency response planning.	DESPP/ DEMHS / DPW / DOT	NWS	Staff Time	Agency Operating Budgets	Annually	X	X	X	X	X	X	X	X	X	X	Medium	
63	1.43 .1	Update all state and local plans relating to hazard mitigation planning and resilience. Incorporate the latest data on hazards, climate change, land use, build environment, etc. Includes plans such as the CT Climate Preparedness Plan and the State Data Plan.	DESPP/ DEMHS / DEEP / Connecticut Data Analysis Technology Advisory Board	DPW / DOT	Staff Time	Agency Operating Budgets, HMA	Annually	X	X	X	X	X	X	X	X	X	X	High	

64	3.1	Bedrock fracture mapping in the Plainfield and Danielson area to better characterize the subsurface nature of the geology in the area of recent Eastern CT seismic swarm.	DEEP / State Geological Society		$40K	USGS National Cooperative Geologic Mapping Program, NEHRP	1 year, from onset of funding									X		Low	
65	3.1	Depth of unconsolidated materials mapping from LIDAR digital elevation models (depth to bedrock)	DEEP / State Geological Society		$45k per year, for 3 years	FEMA, USGS, NESEC	3 years, from onset of funding									X		Low	
66	3.1	In all state and local hazard mitigation plans and updates, include sea level rise scenarios for consideration and analysis, as required by PA 18-82. Plan mitigation efforts to include this analysis as a factor of safety.	DEMHS / COGs	Municipalities / DEEP	Staff Time	Agency Operating Budgets / FEMA HMGP Grants	Ongoing					X				X		Medium	

Appendix 5-3. Report on past CT NHMP Activities