

Name of the Attachment: **AttEMapsAndDrawings**

Name of the applicant: **The State of Connecticut**

Name of the file: **AttEMapsAndDrawings**

Figure 1. Number of homes damaged by Hurricane Sandy for coastal municipalities in the most impacted and distressed target areas (Analysis of Communities Impacted by Hurricane Sandy in Connecticut; HUD: PD&R; March 7, 2013).

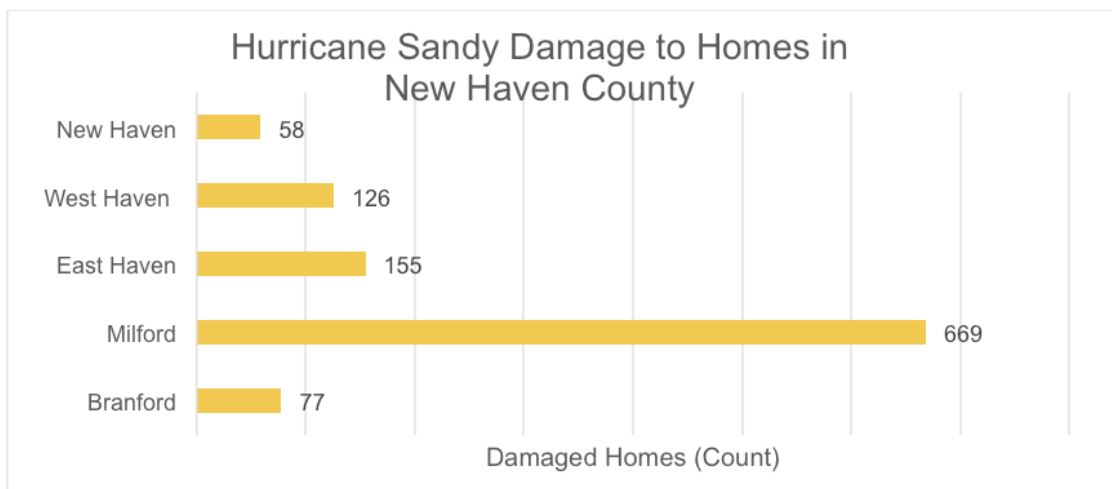
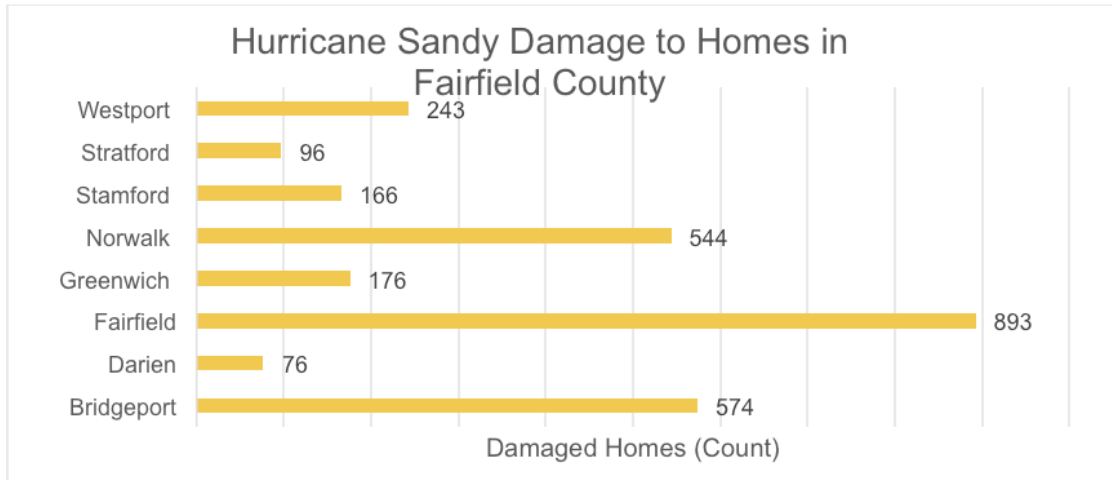


Figure 2: Hurricane Sandy Impacts – total unmet housing needs

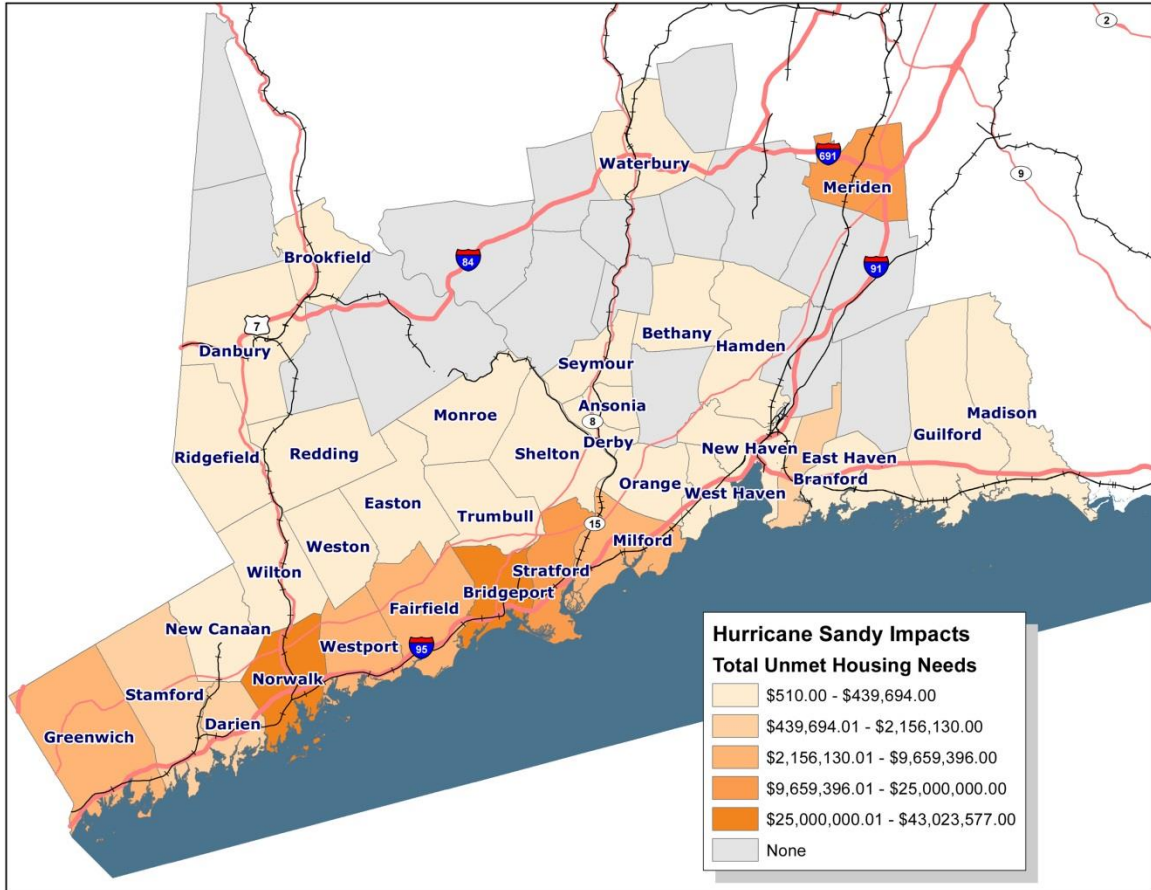


Figure 3: Hurricane Sandy Impacts – unmet needs for owner-occupied housing

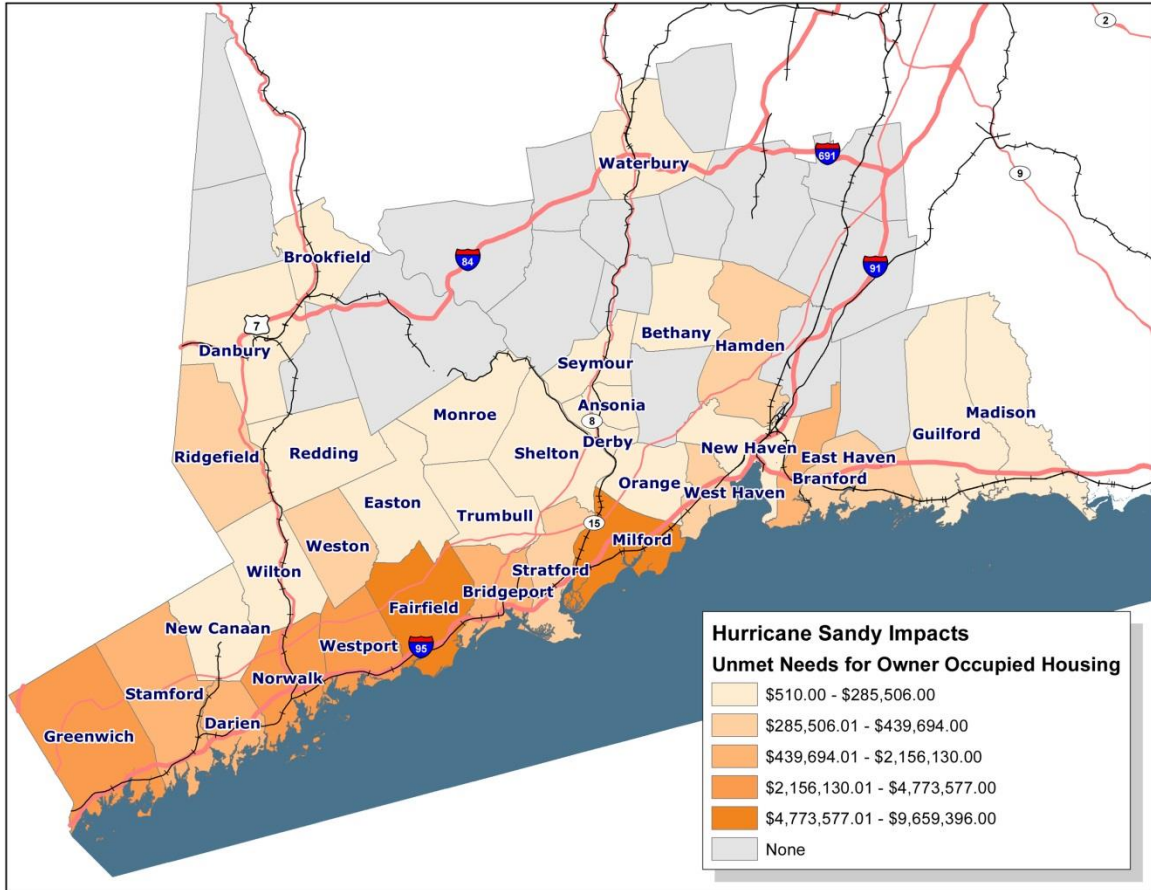


Figure 4: Hurricane Sandy Impacts – unmet needs for multi-family housing

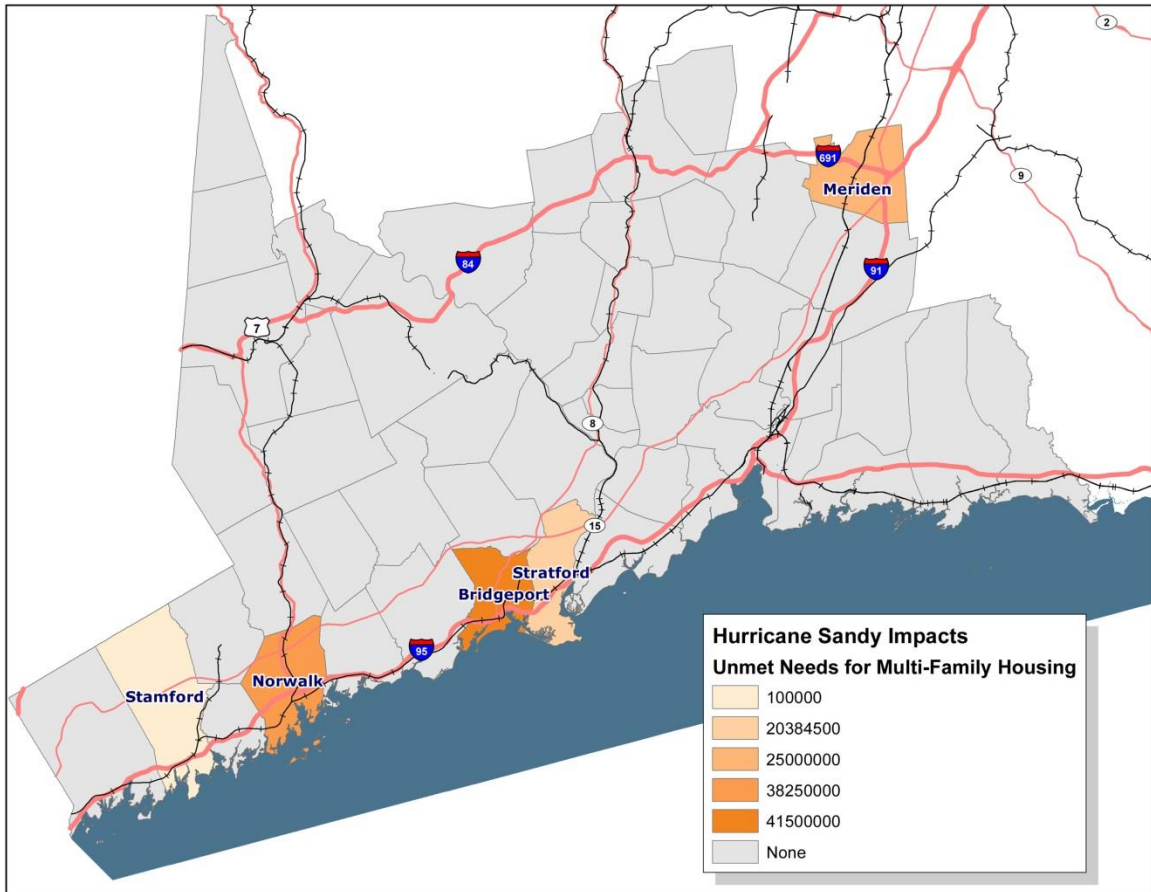


Figure 5. Average rent for coastal municipalities in the most impacted and distressed target areas (Zillow Rent Index, April 29, 2013).

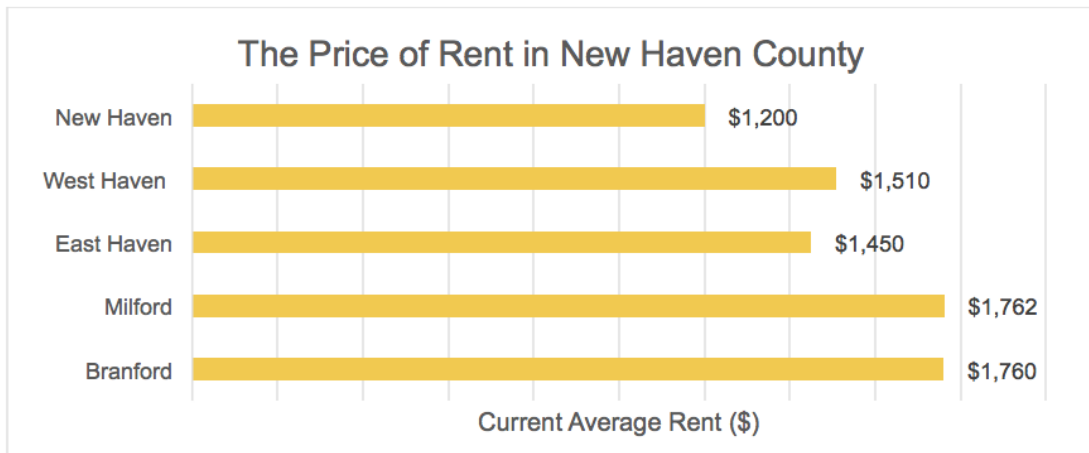
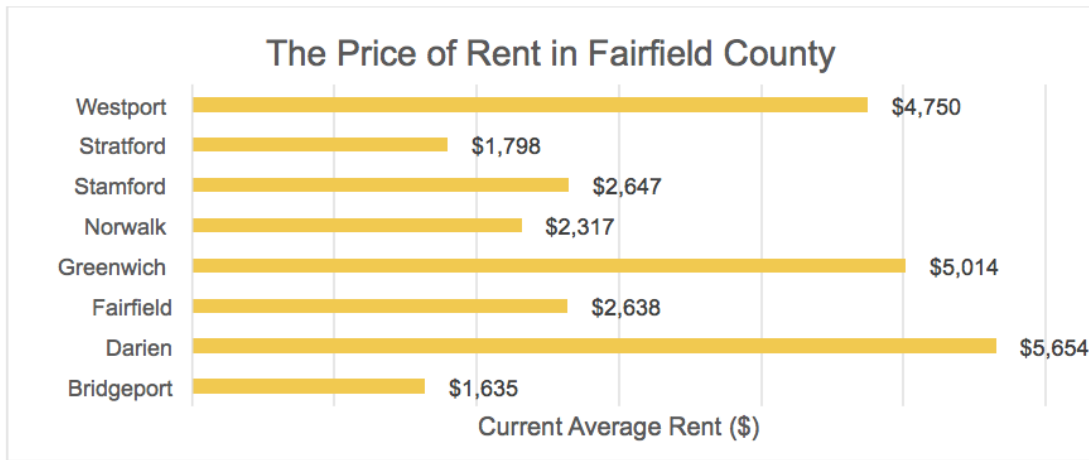


Figure 6. Current median home value and median income of residents in the most impacted and distressed target areas (Zillow Home Value Index, April 29, 2013; CT CDBG-DR Sandy Action Plan, June, 2013).

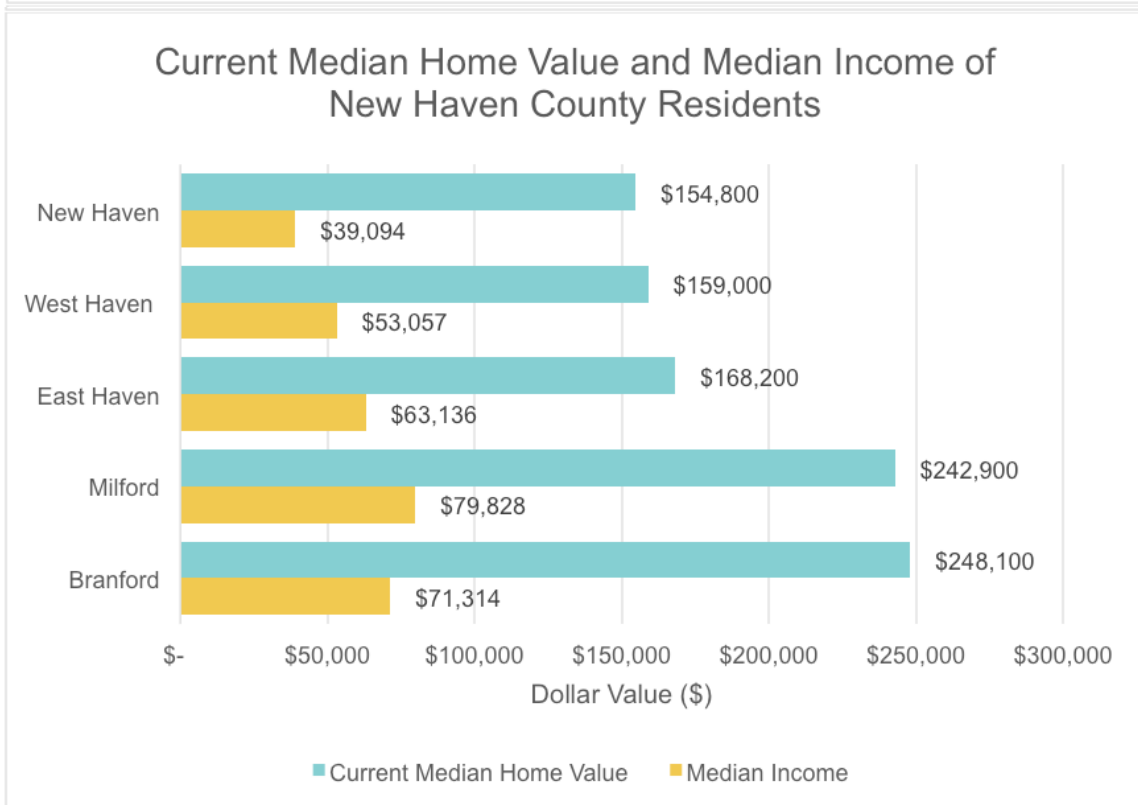
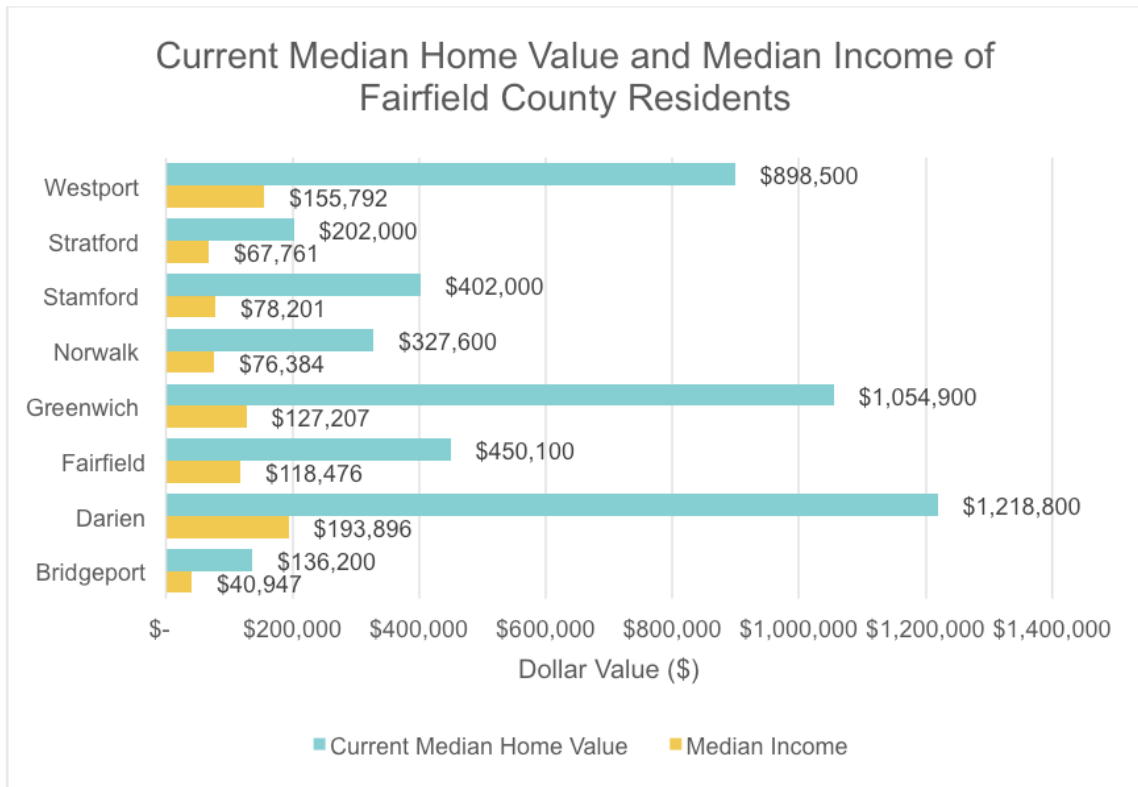


Figure 7. Population of coastal municipalities in the most impacted and distressed target areas (American Community Survey 2007-2011 Five Year Survey).

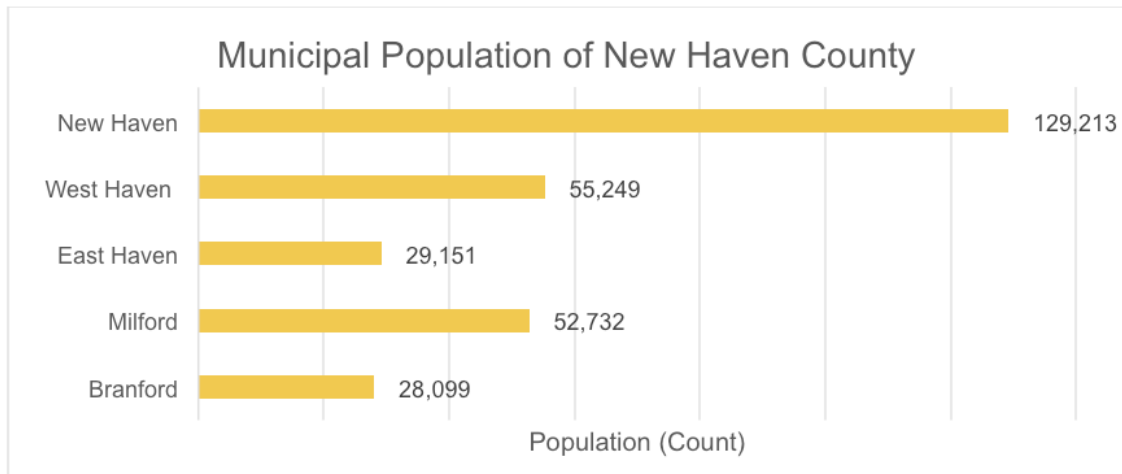
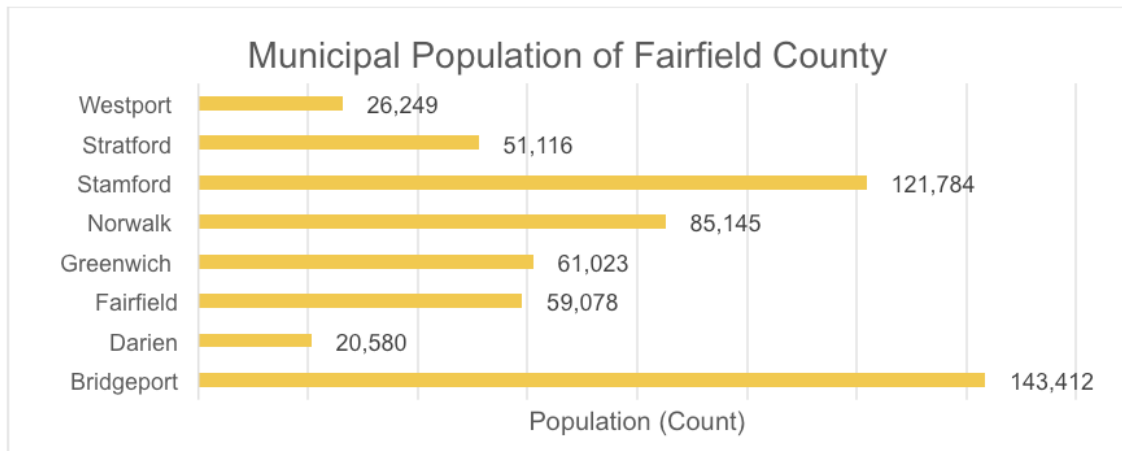


Figure 8. Percentage of the population that is a racial/ethnic minority and elderly and the poverty rate and home ownership rate for coastal municipalities in the most impacted and distressed target areas (American Community Survey 2007-2011 Five Year Survey; CT CDBG-DR Sandy Action Plan, June, 2013).

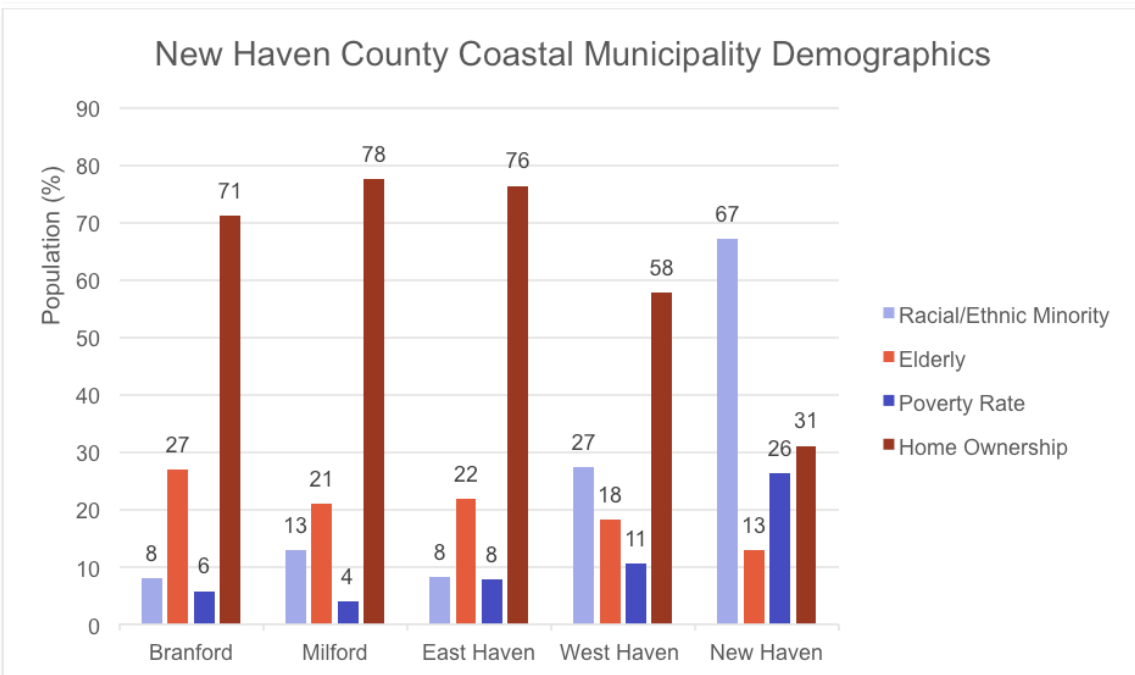
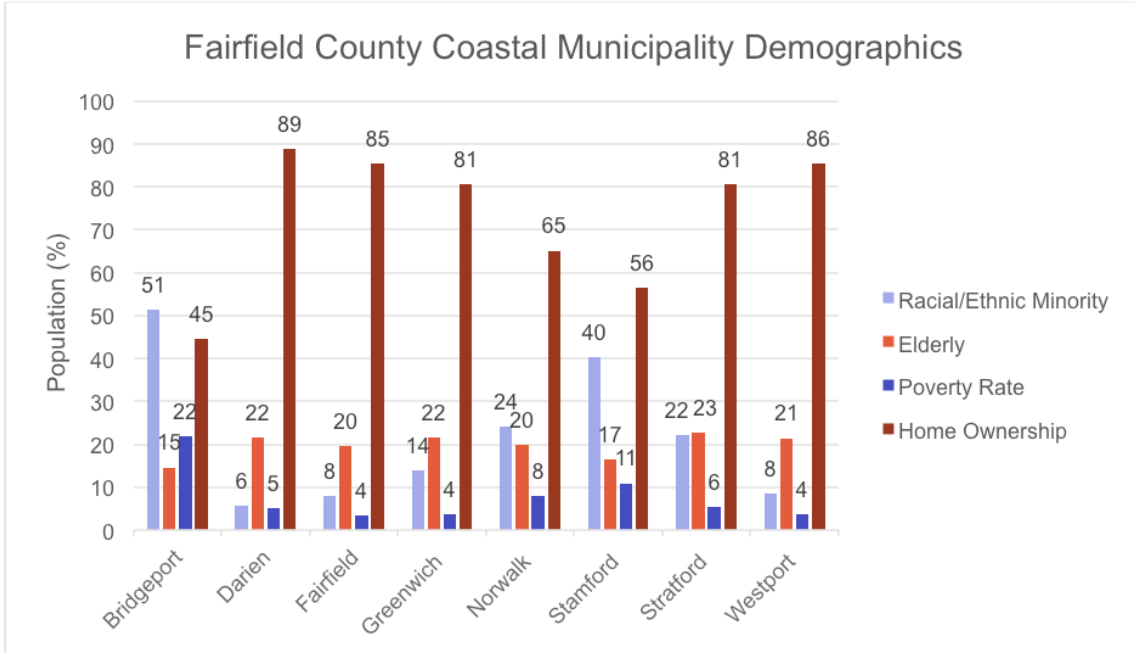


Figure 9: Percentage of persons with low or moderate income in Fairfield County

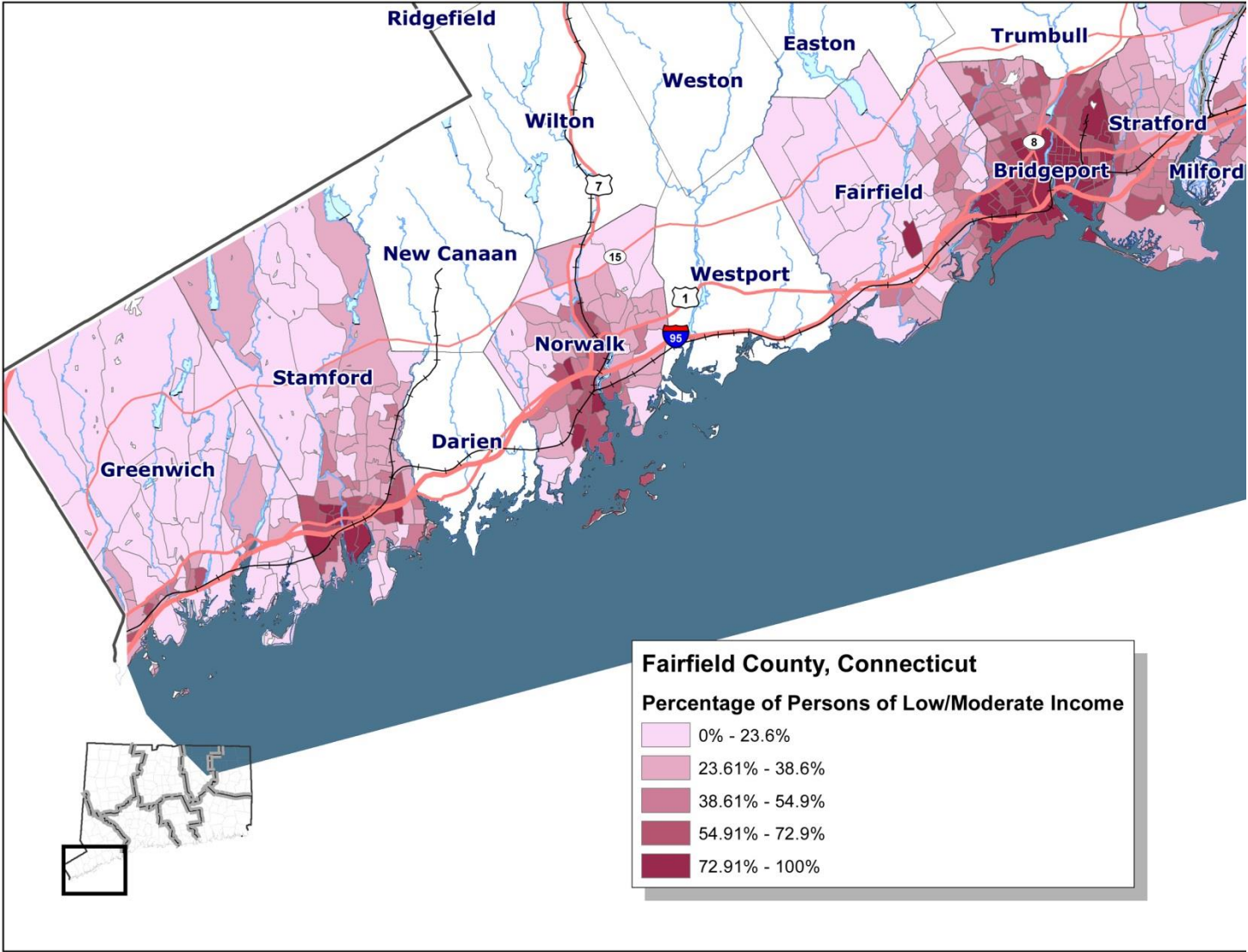


Figure 10: Percentage of persons with low or moderate income in New Haven County

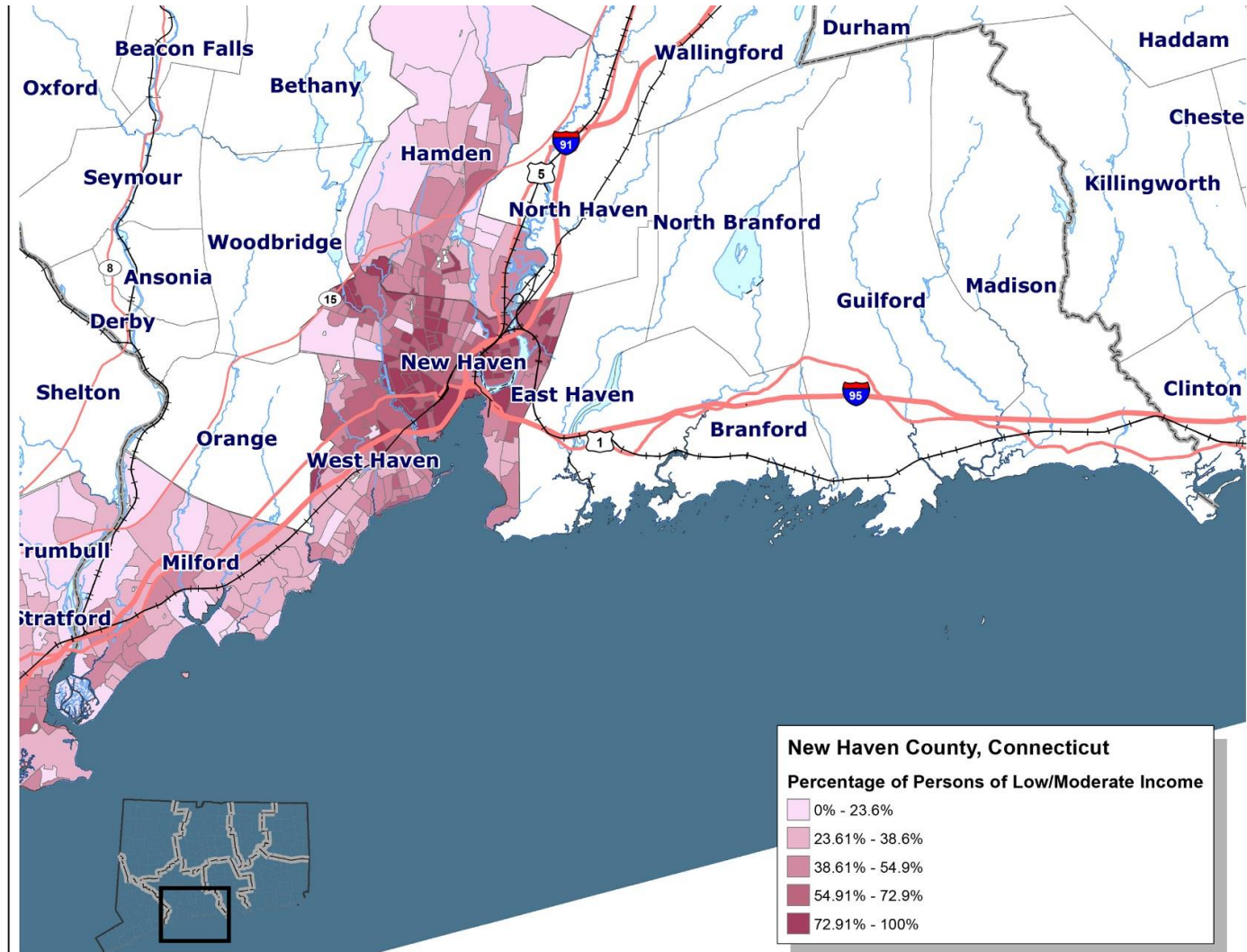


Figure 11: Social Vulnerability Index for Connecticut at the census tract level in Fairfield County (2010)

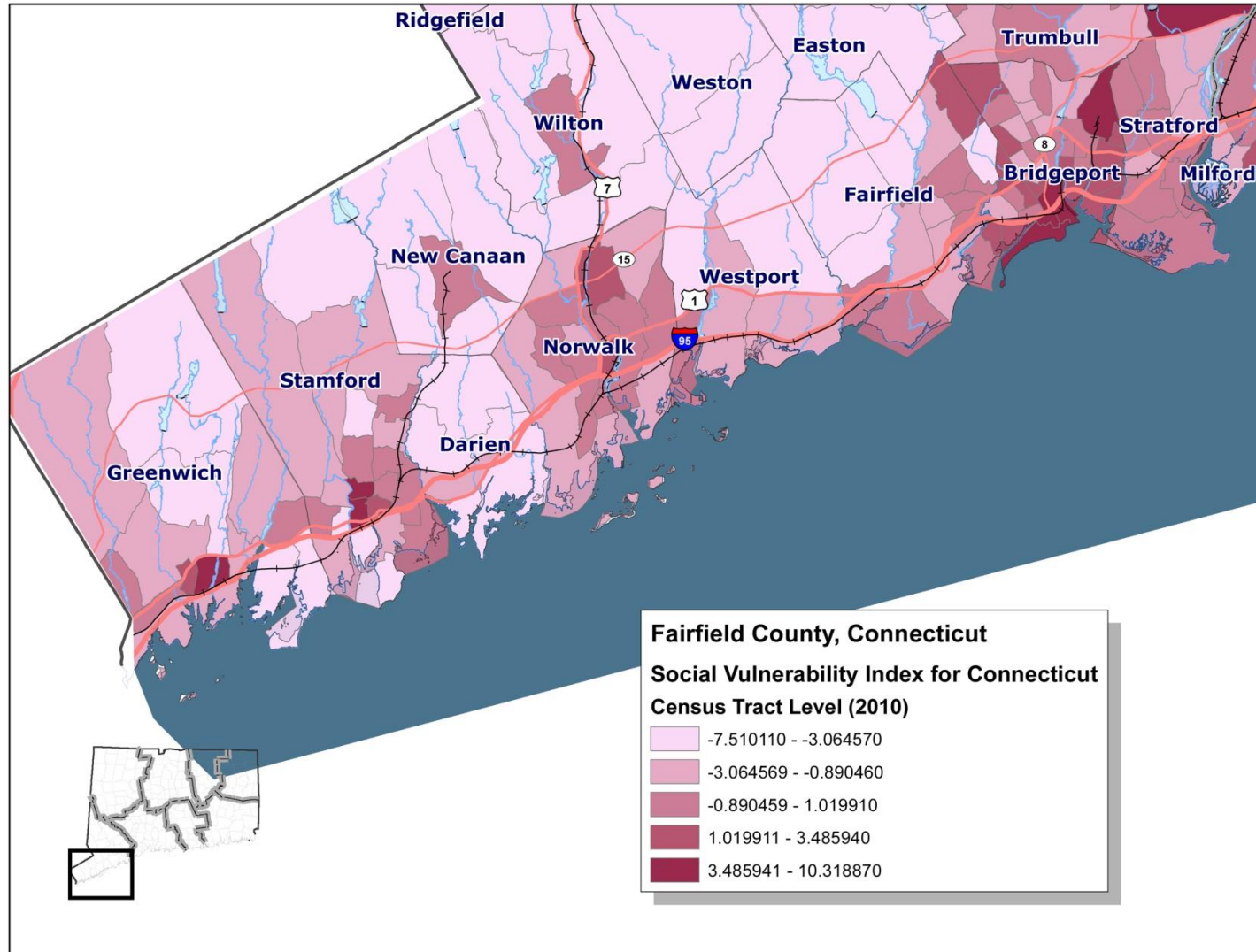


Figure 12: Social Vulnerability Index for Connecticut at the census tract level in New Haven County (2010)

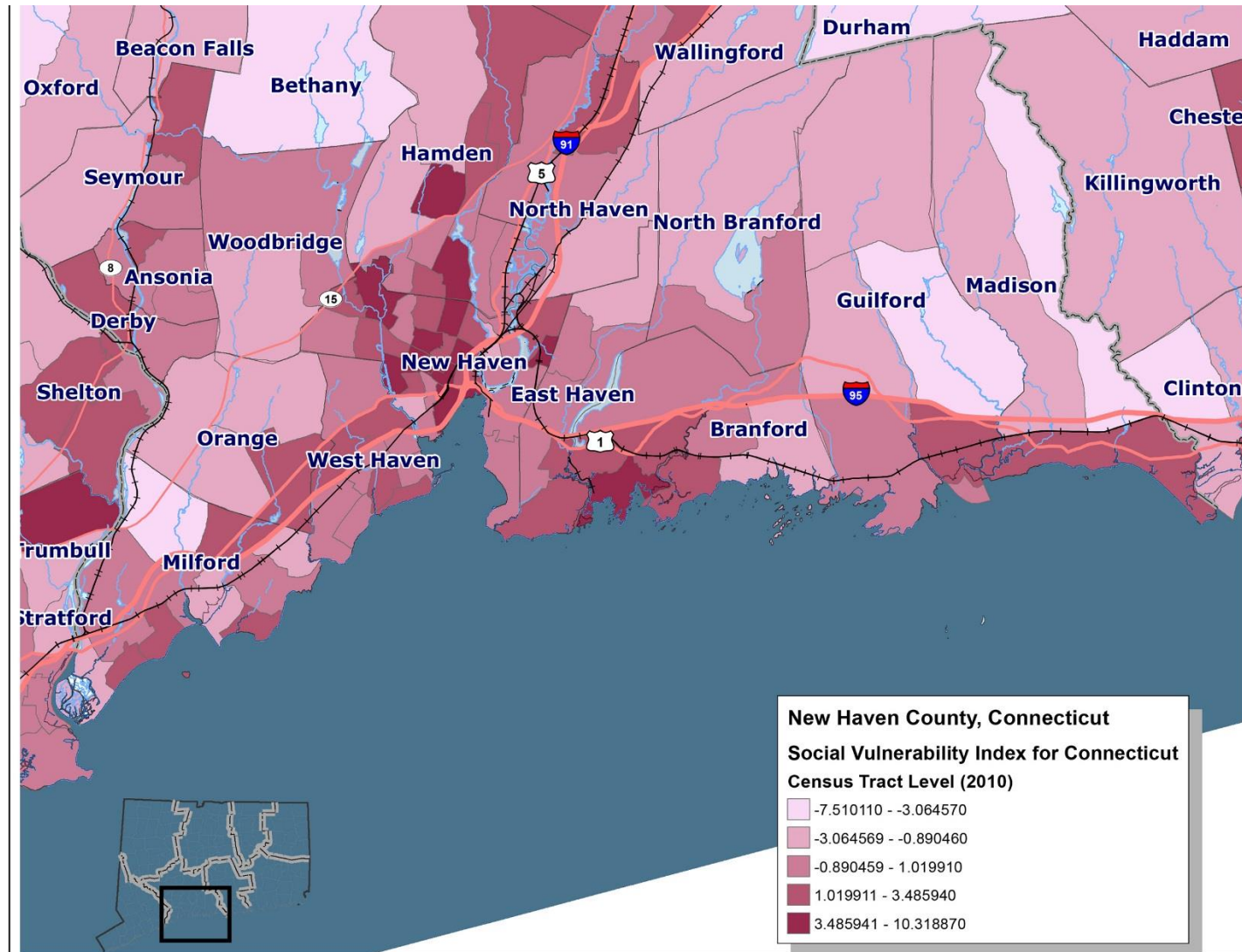


Figure 13: Social Vulnerability Index with Hurricane Surge overlay in Fairfield County

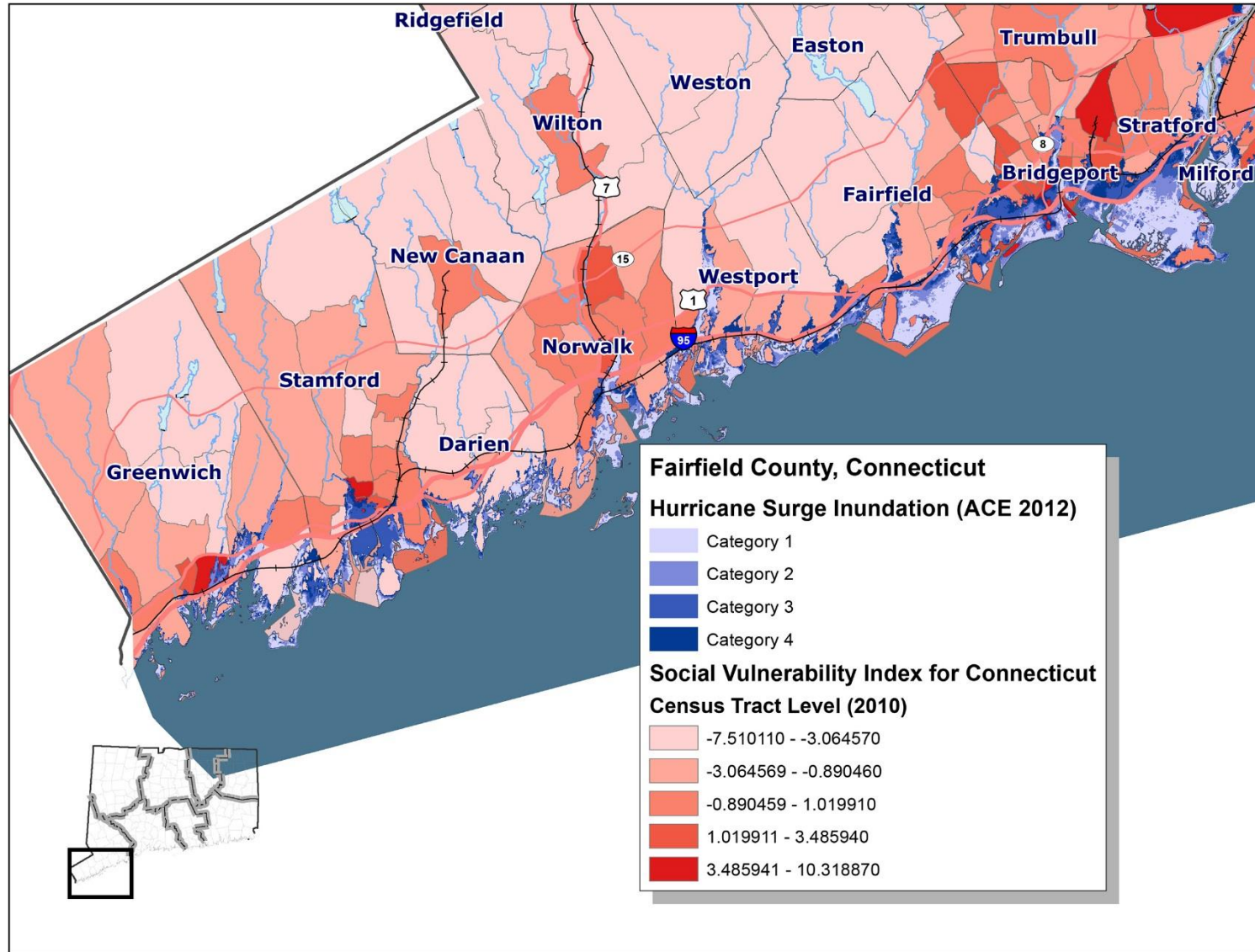
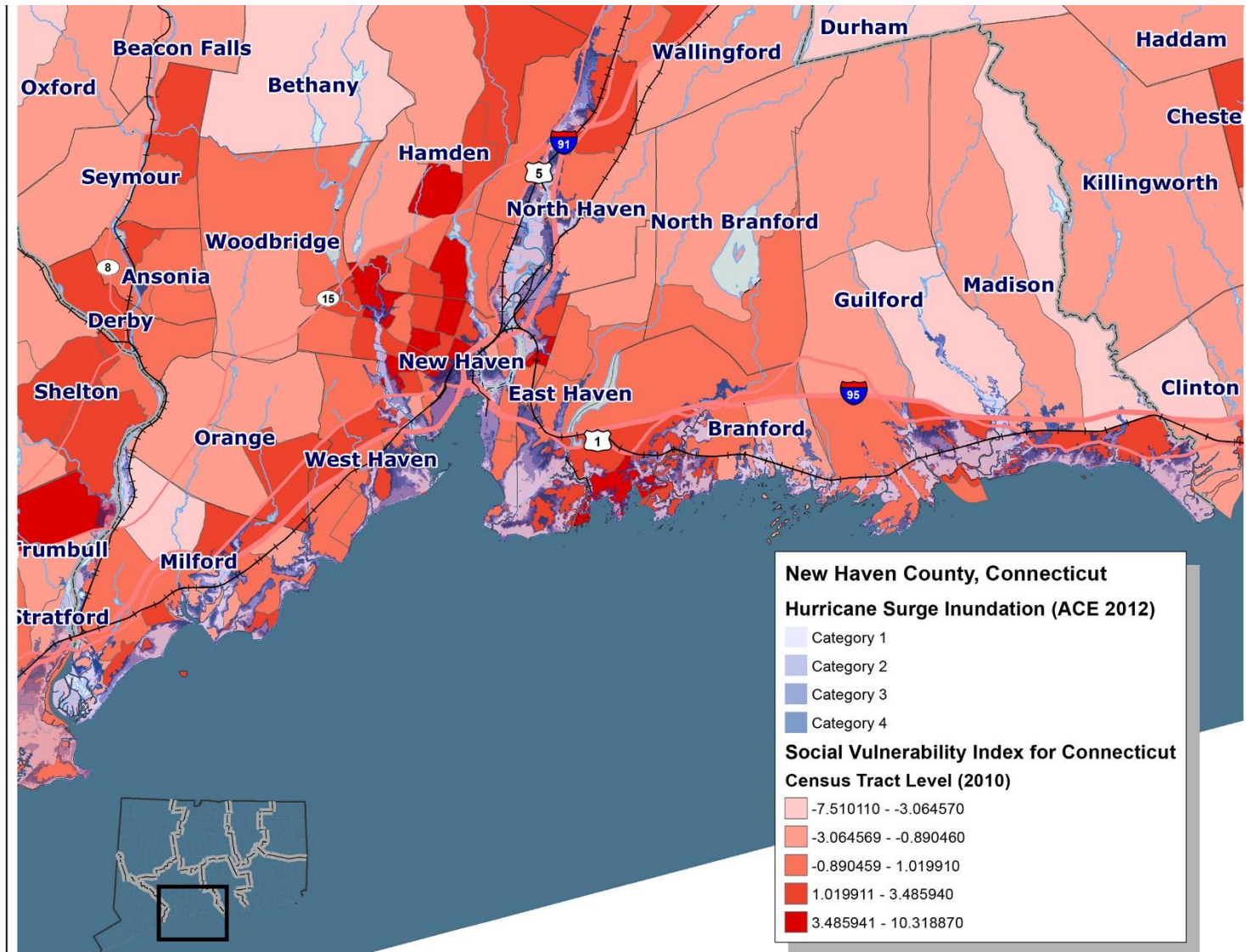


Figure 14: Social Vulnerability Index with Hurricane Surge overlay in in New Haven County







Legend Enlargement for Figures 16-30

Infrastructure Sites

-  Energy Facilities
-  Wastewater Treatment Facilities
-  Marine Terminals
-  Train Stations

**FEMA Individual Assistance (IA) Household Inspection Damage
Damage Classification (Hurricane Sandy Impacts)**

-  Affected – Total Full Verified Loss (FVL) greater than \$0 to \$5,000
-  Minor – Total Full Verified Loss (FVL) \$5,000 to \$17,000
-  Major – Total Full Verified Loss (FVL) more than \$17,000
-  Destroyed - If indicated by IA Inspector

FINAL - High Resolution Storm Surge Extent

 Hurricane Sandy (FEMA Modeling Task Force (MOTF) Impact Analysis)

Projected Hurricane Surge Inundation Areas

 Category 3 Hurricane (Army Corps of Engineers 2012 Surge Model)

Figure 16: Hurricane Sandy and Anticipated Category 3 Inundation Town of Greenwich (see Legend Enlargement p. 18)

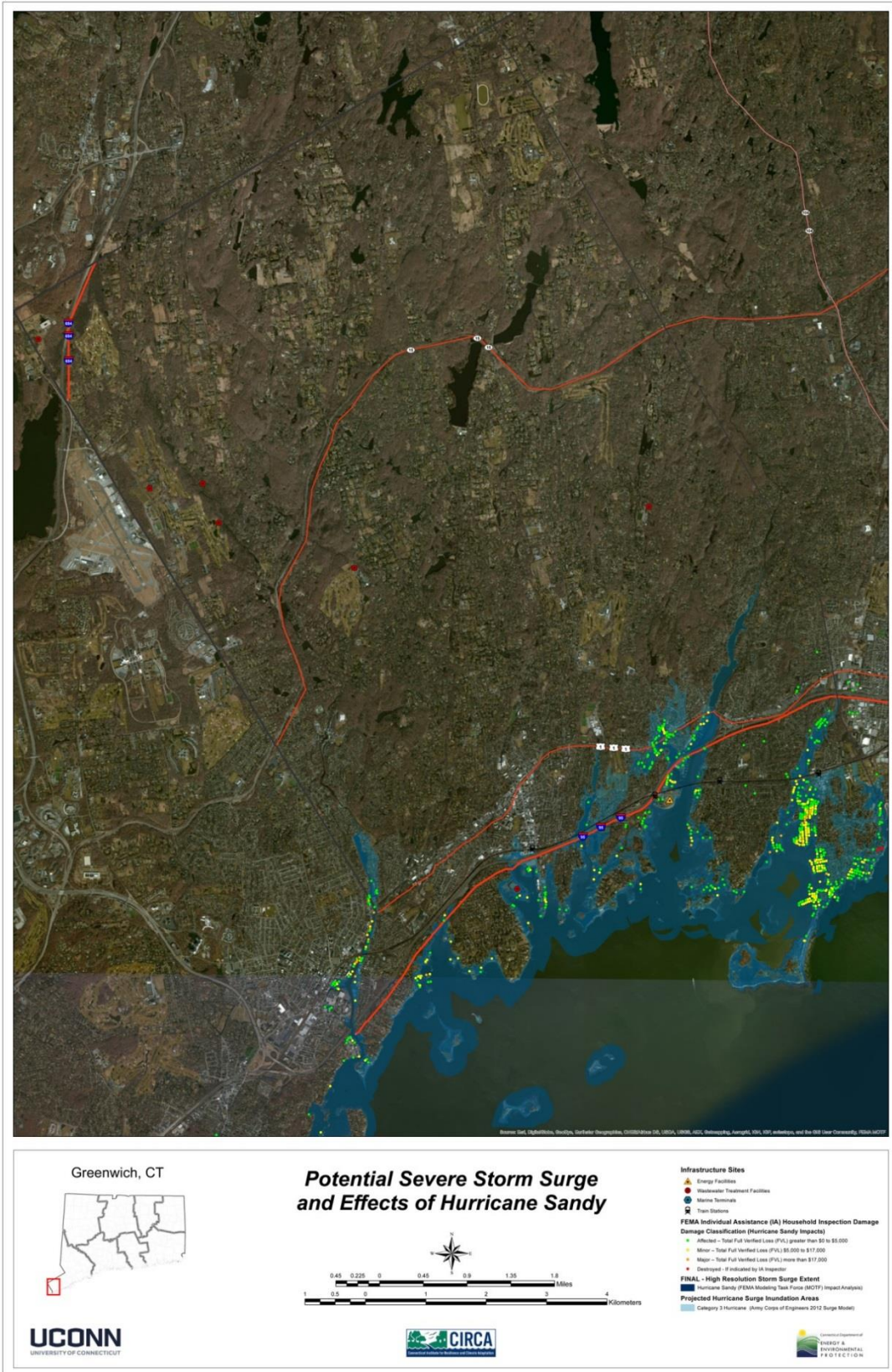


Figure 17: Hurricane Sandy and Anticipated Category 3 Inundation City of Stamford (see Legend Enlargement p. 18)

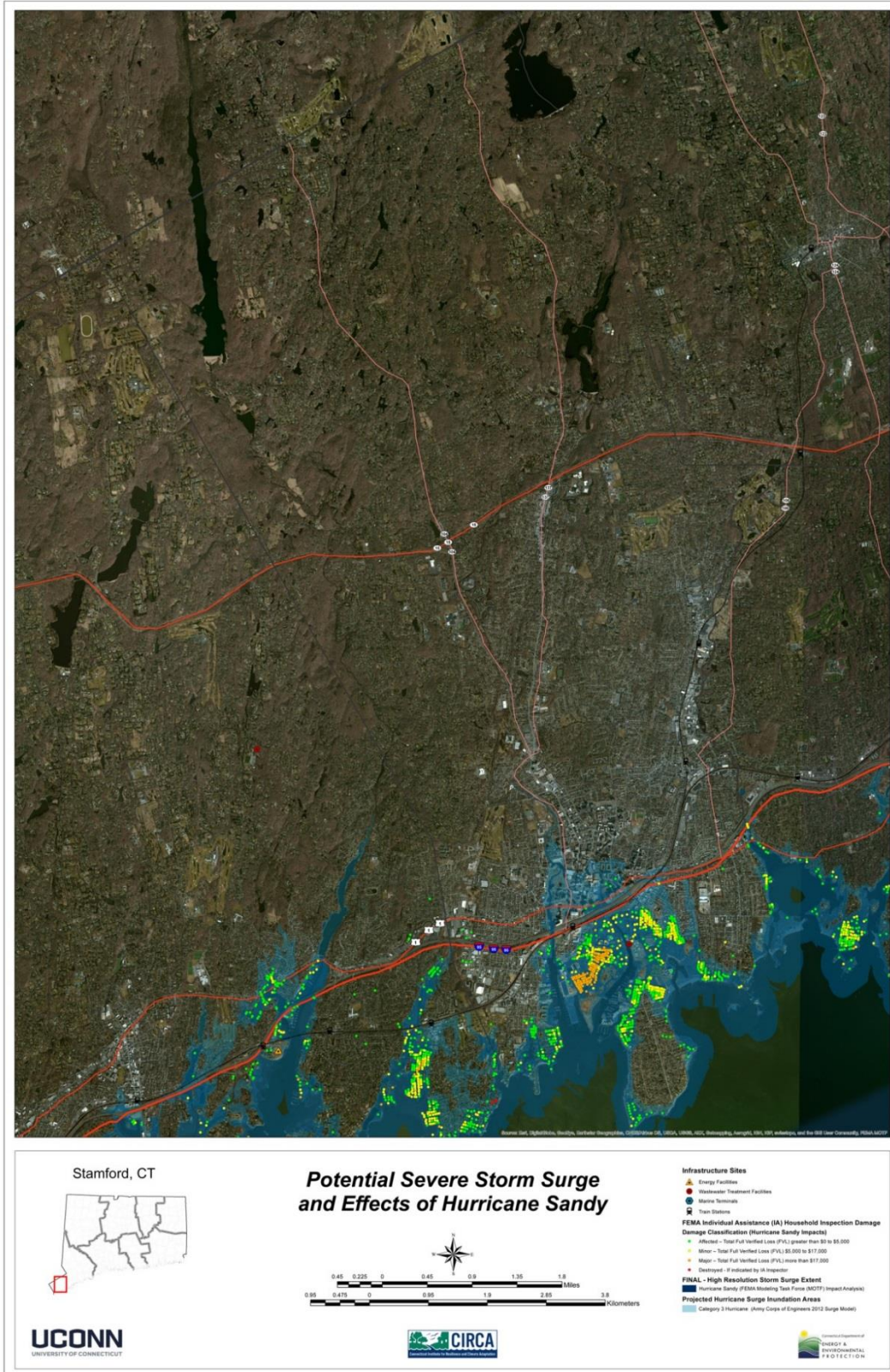


Figure 18: Hurricane Sandy and Anticipated Category 3 Inundation Town of Darien (see Legend Enlargement p. 18)

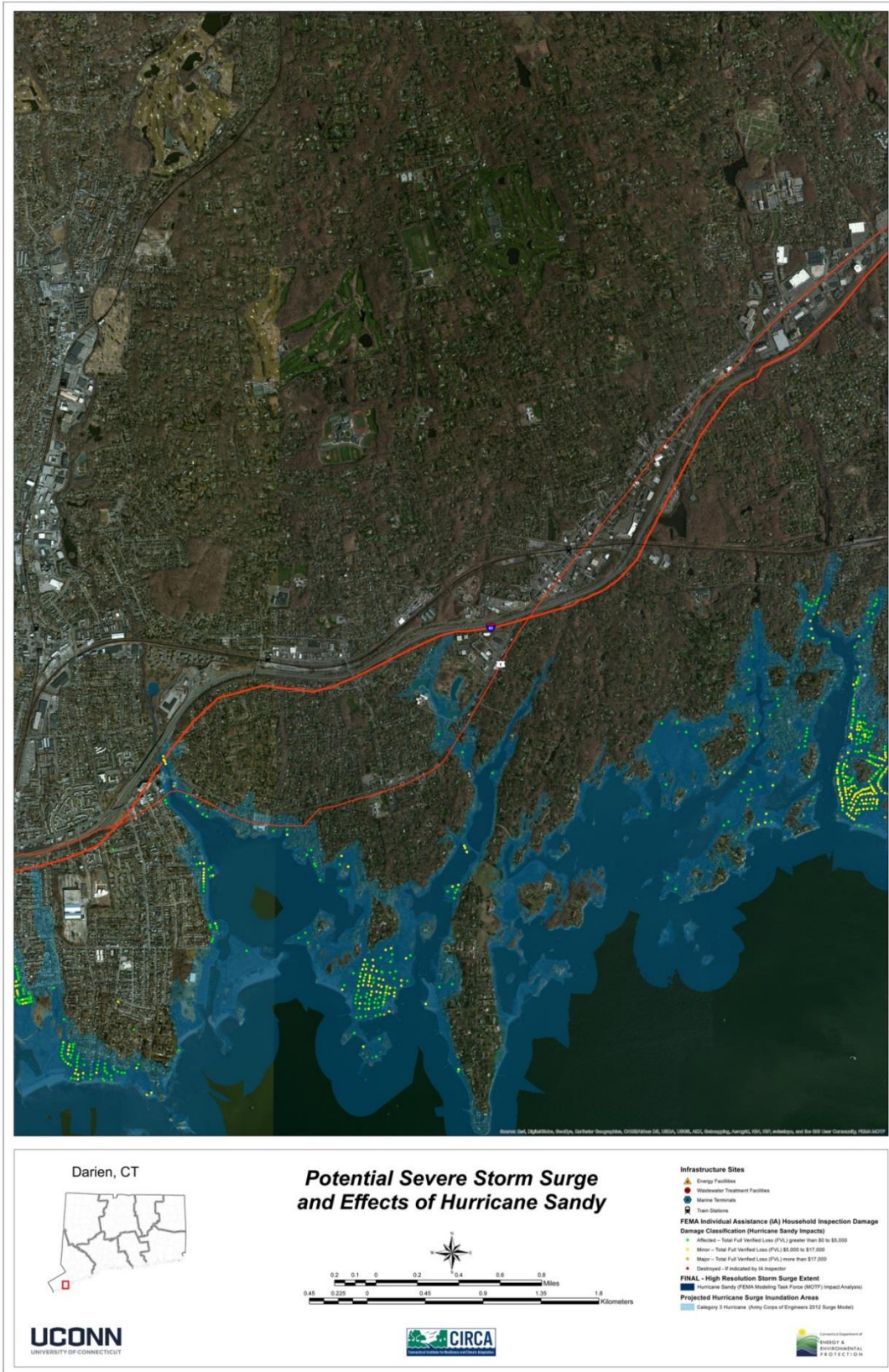


Figure 19: Hurricane Sandy and Anticipated Category 3 Inundation City of Norwalk (see Legend Enlargement p. 18)

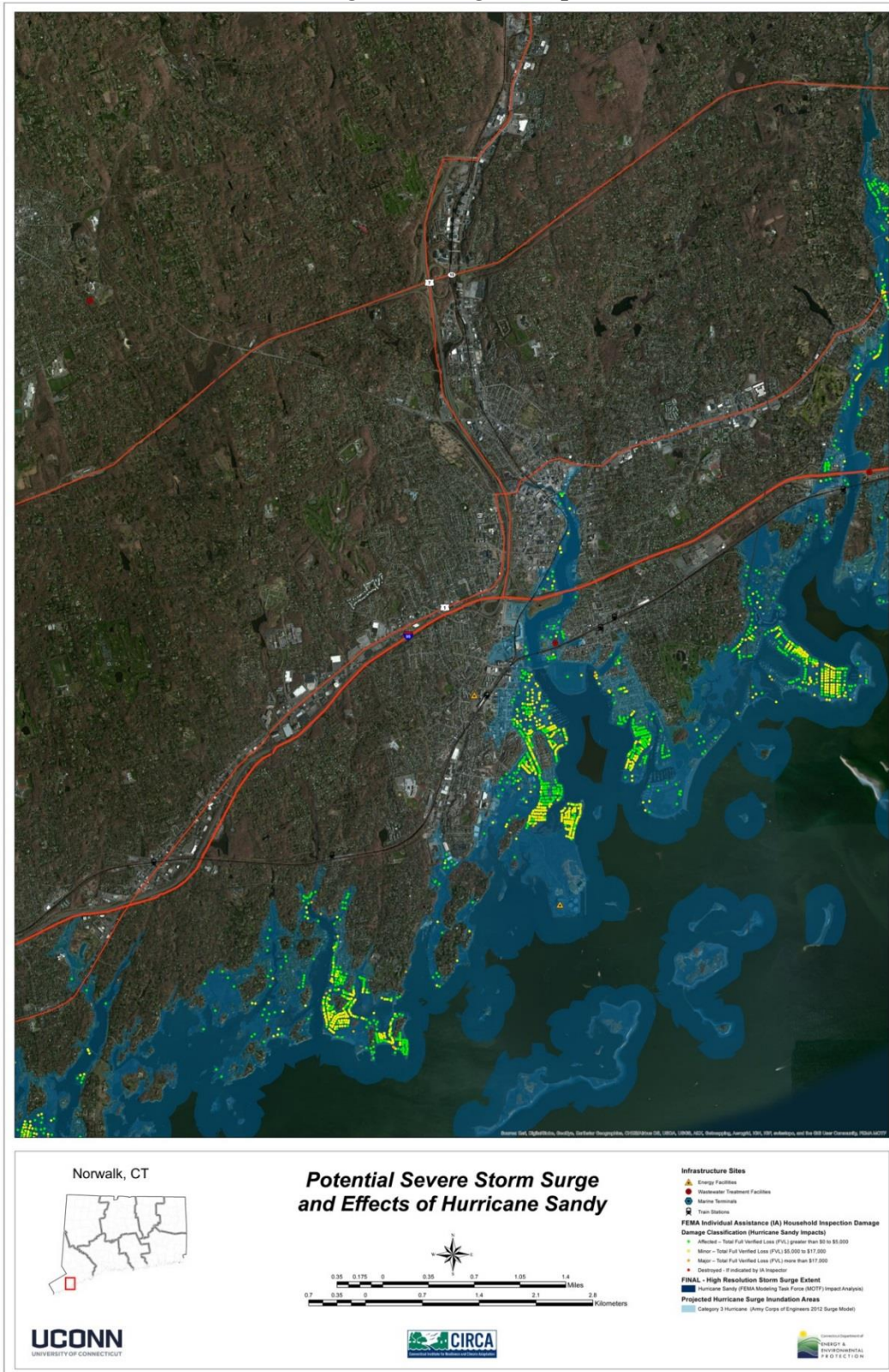


Figure 20: Hurricane Sandy and Anticipated Category 3 Inundation Town of Westport (see Legend Enlargement p. 18)

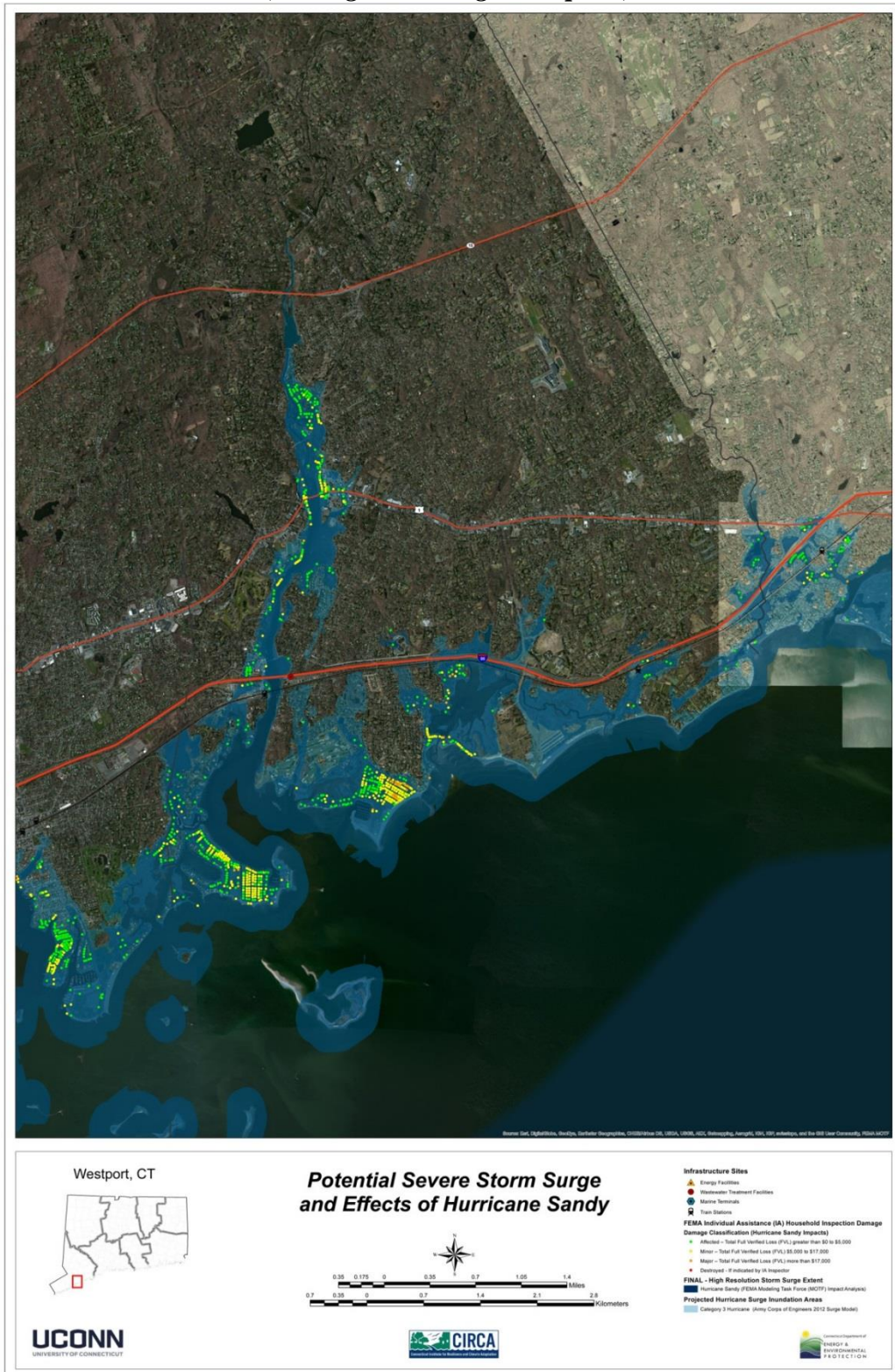
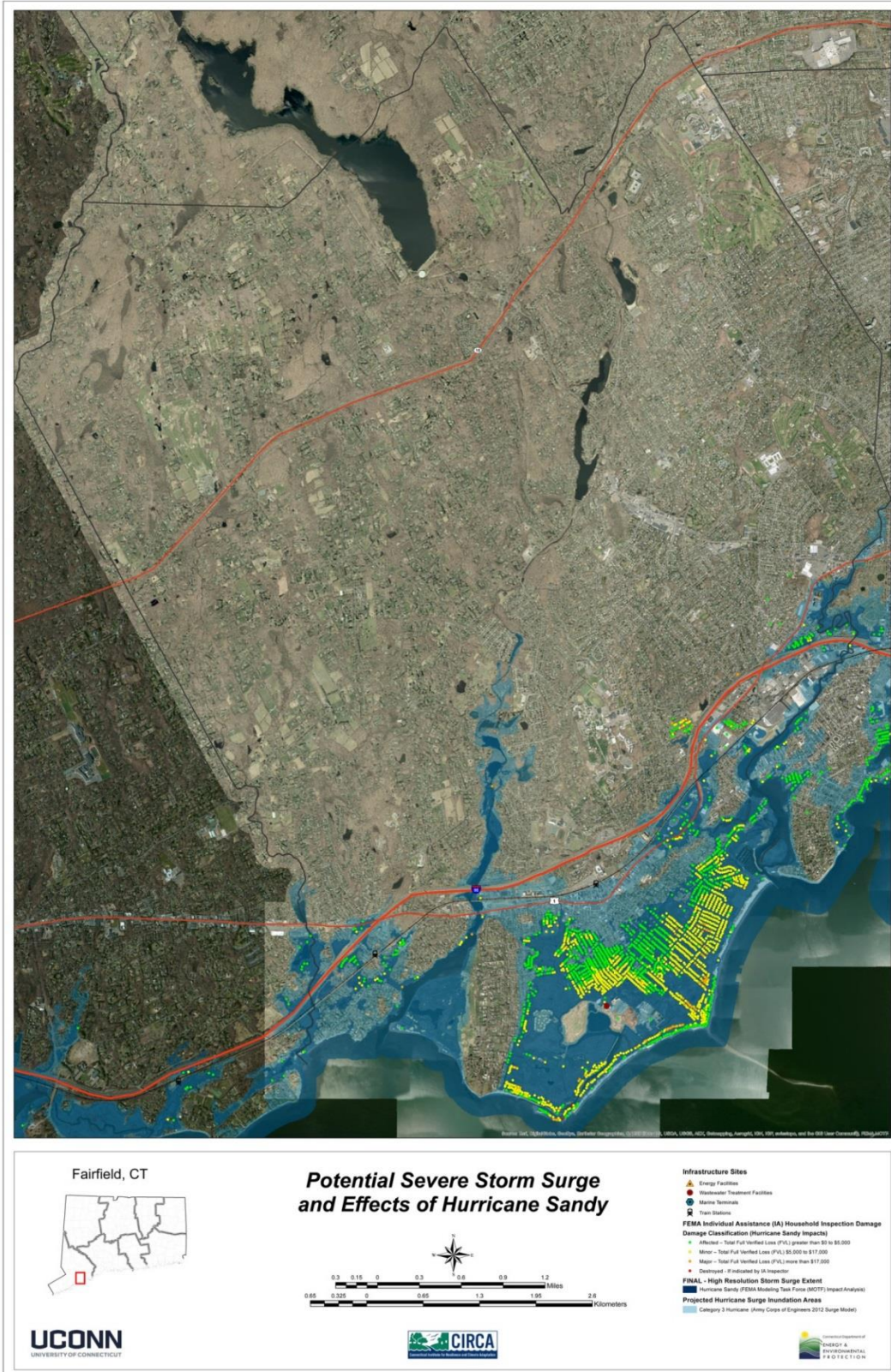


Figure 21: Hurricane Sandy and Anticipated Category 3 Inundation Town of Fairfield (see Legend Enlargement p. 18)



**Figure 22: Hurricane Sandy and Anticipated Category 3 Inundation City of Bridgeport
(see Legend Enlargement p. 18)**

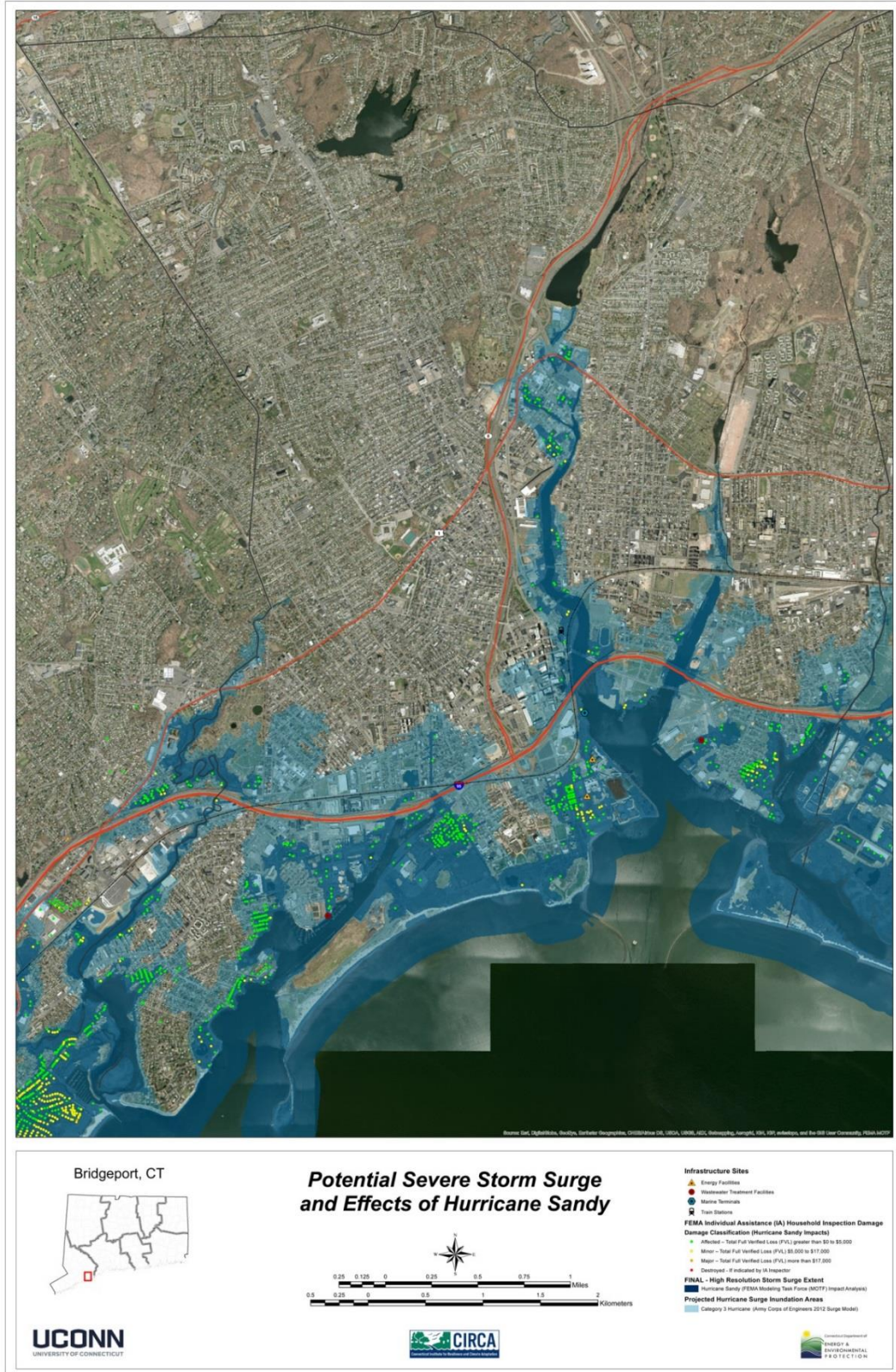


Figure 23:: Hurricane Sandy and Anticipated Category 3 Inundation Town of Stratford (see Legend Enlargement p. 18)

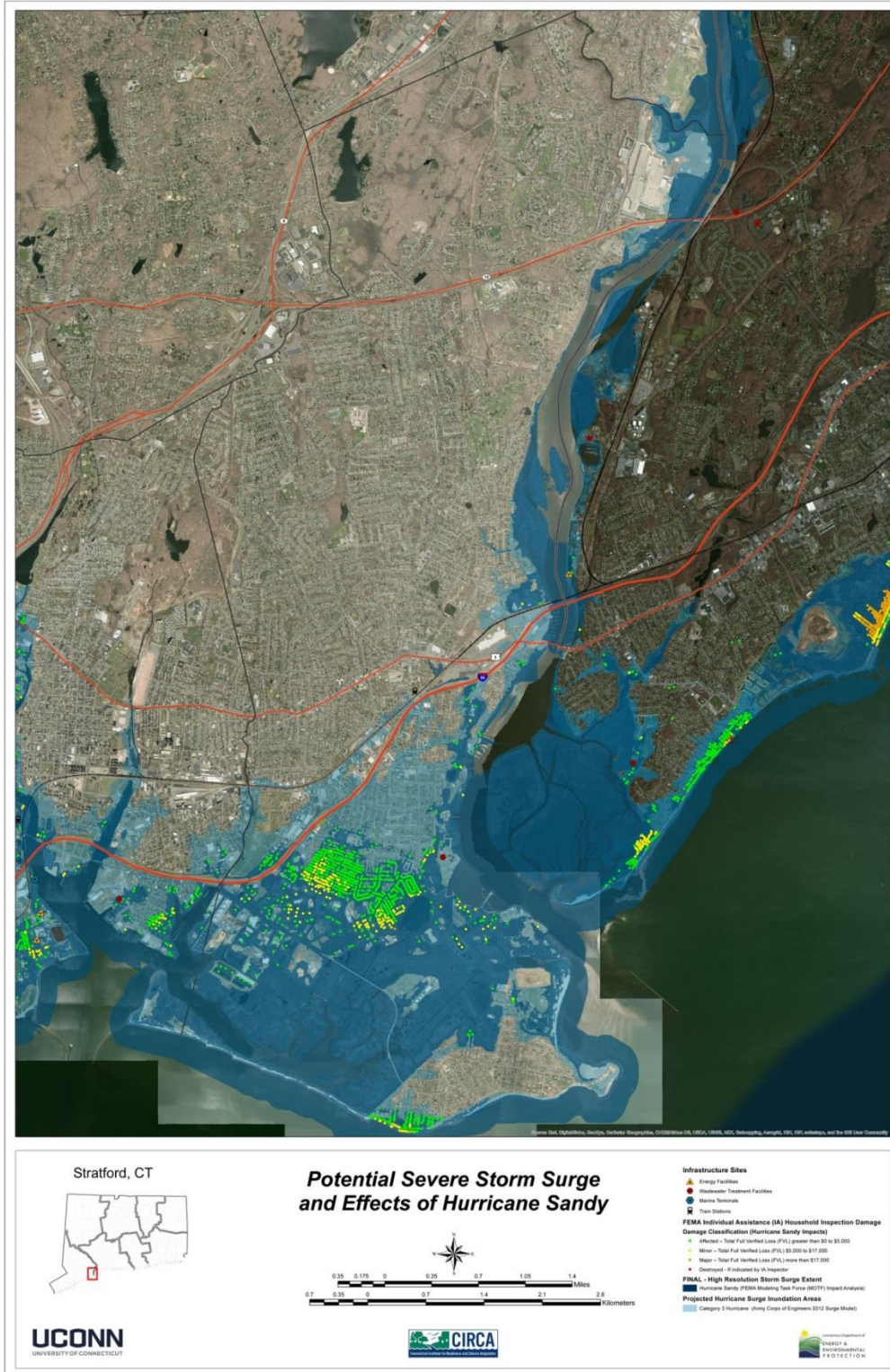


Figure 24: Hurricane Sandy and Anticipated Category 3 Inundation City of Milford (see Legend Enlargement p. 18)

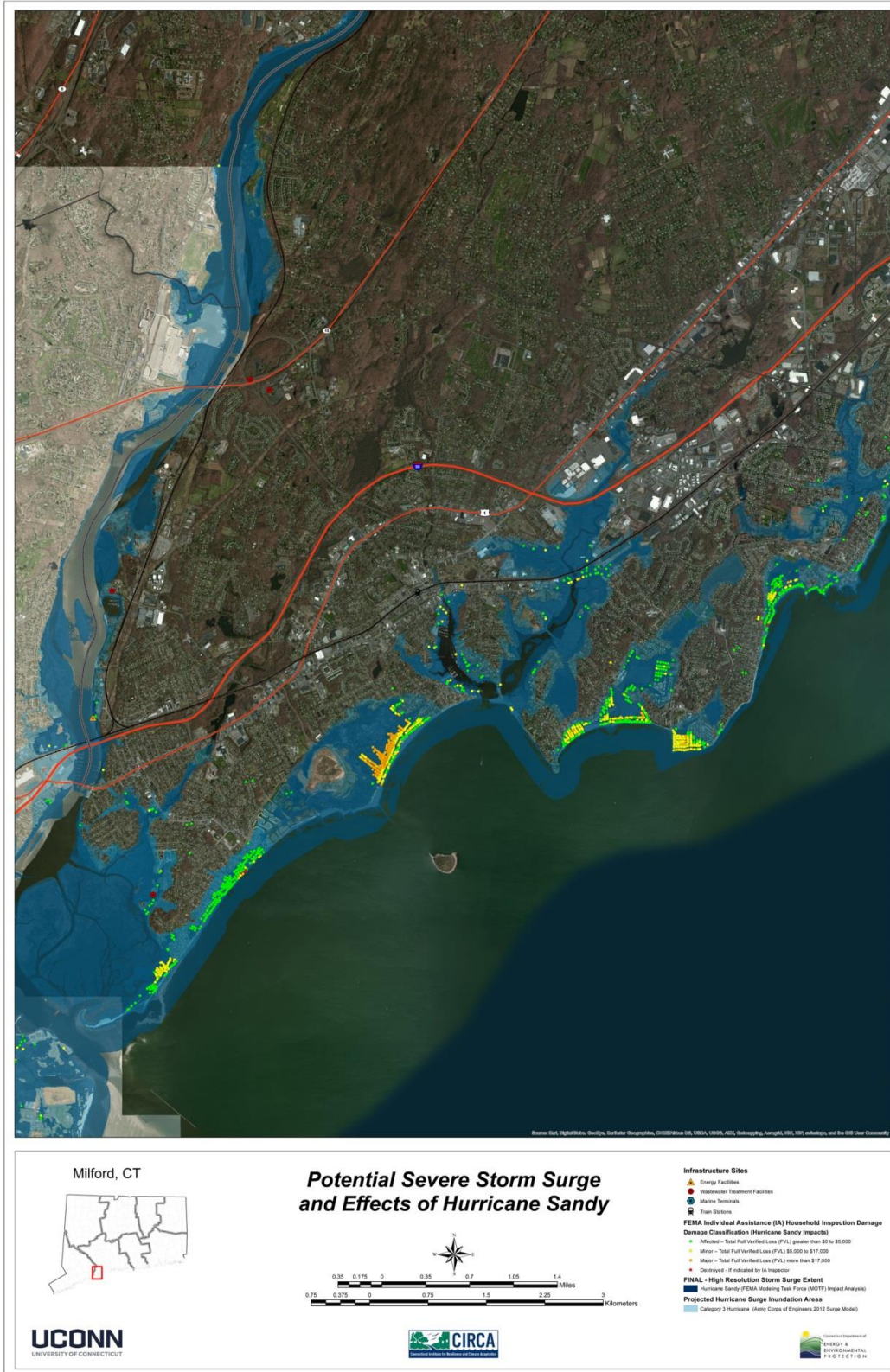


Figure 25: Hurricane Sandy and Anticipated Category 3 Inundation City of West Haven (see Legend Enlargement p. 18)

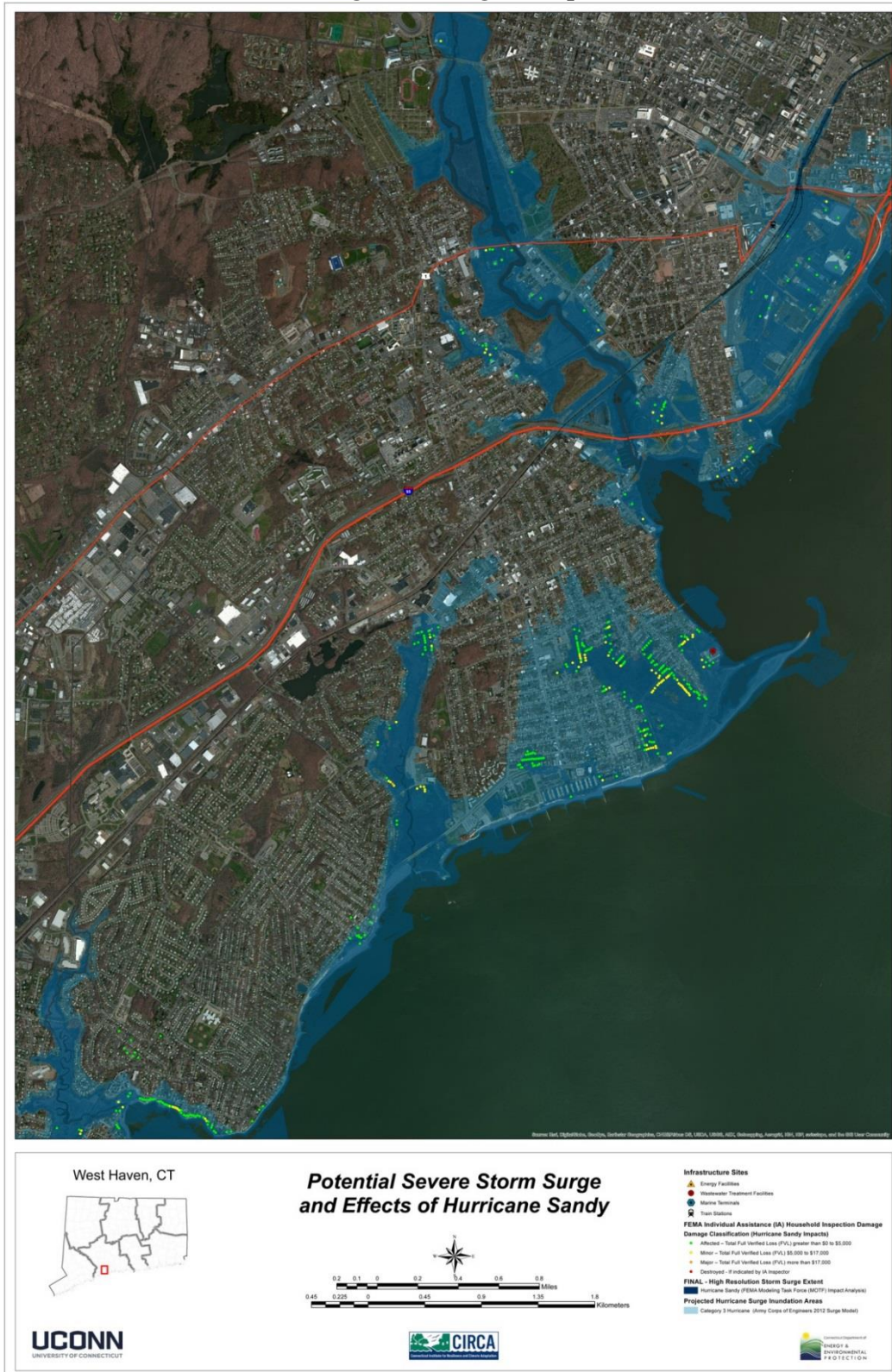
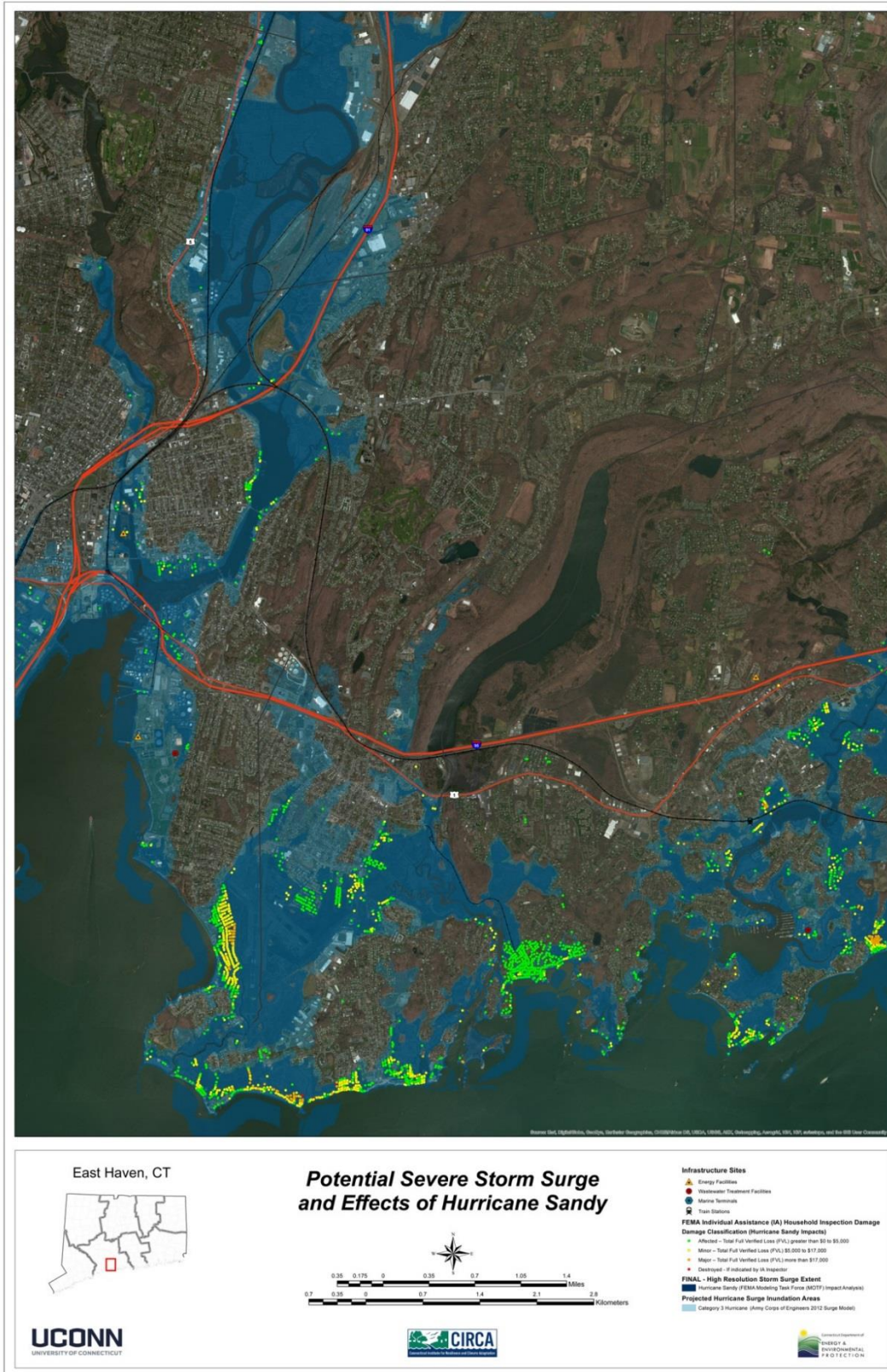


Figure 26: Hurricane Sandy and Anticipated Category 3 Inundation City of New Haven (see Legend Enlargement p. 18)



Figure 27: Hurricane Sandy and Anticipated Category 3 Inundation Town of East Haven (see Legend Enlargement p. 18)



**Figure 28: Hurricane Sandy and Anticipated Category 3 Inundation Town of Branford
(see Legend Enlargement p. 18)**

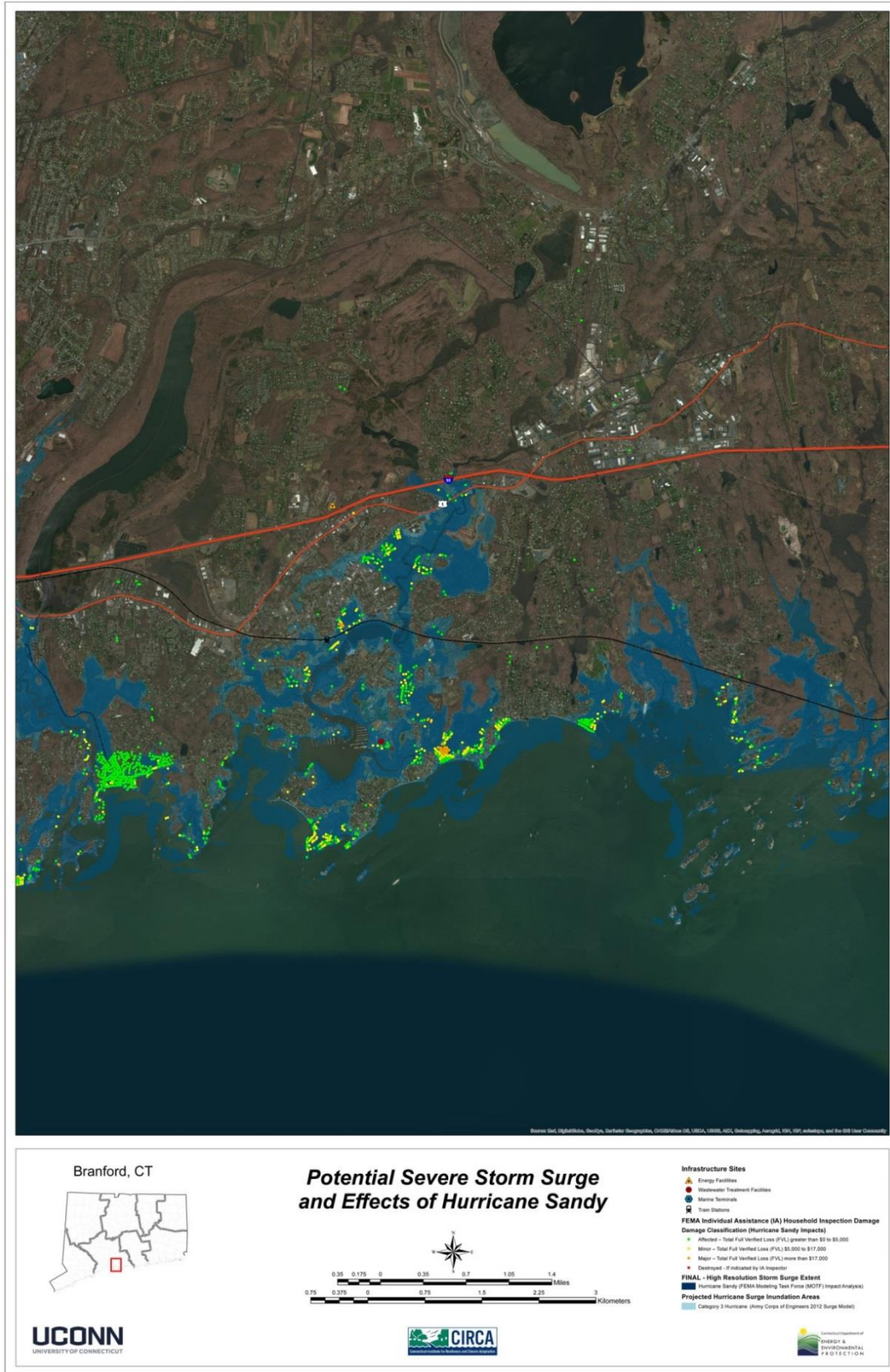


Figure 29: Hurricane Sandy and Anticipated Category 3 Inundation Town of Guilford (see Legend Enlargement p. 18)

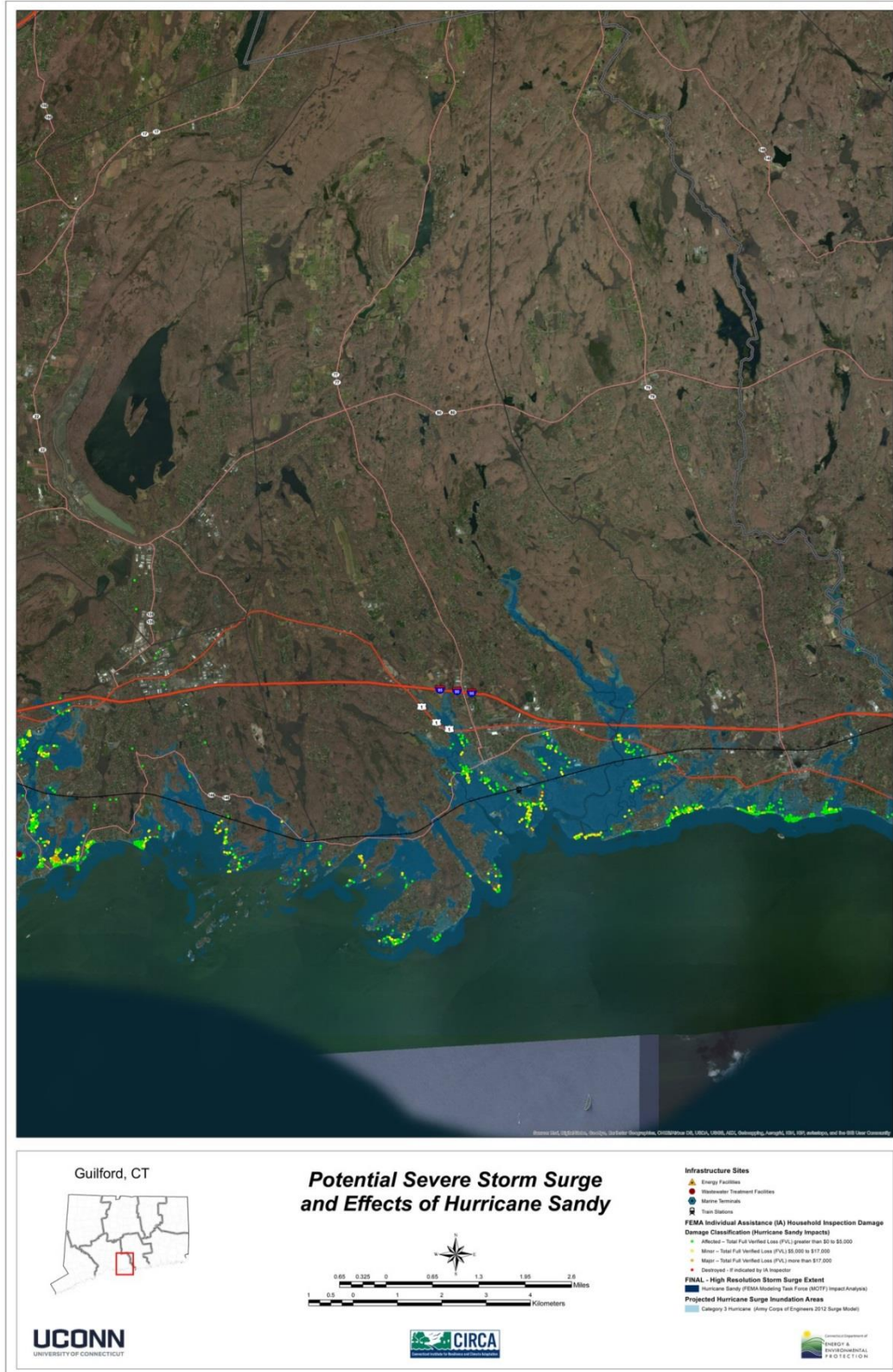


Figure 30: Hurricane Sandy and Anticipated Category 3 Inundation Town of Madison (see Legend Enlargement p. 18)



Figure 31: An example of an area expected to be affected by sea level rise (12")

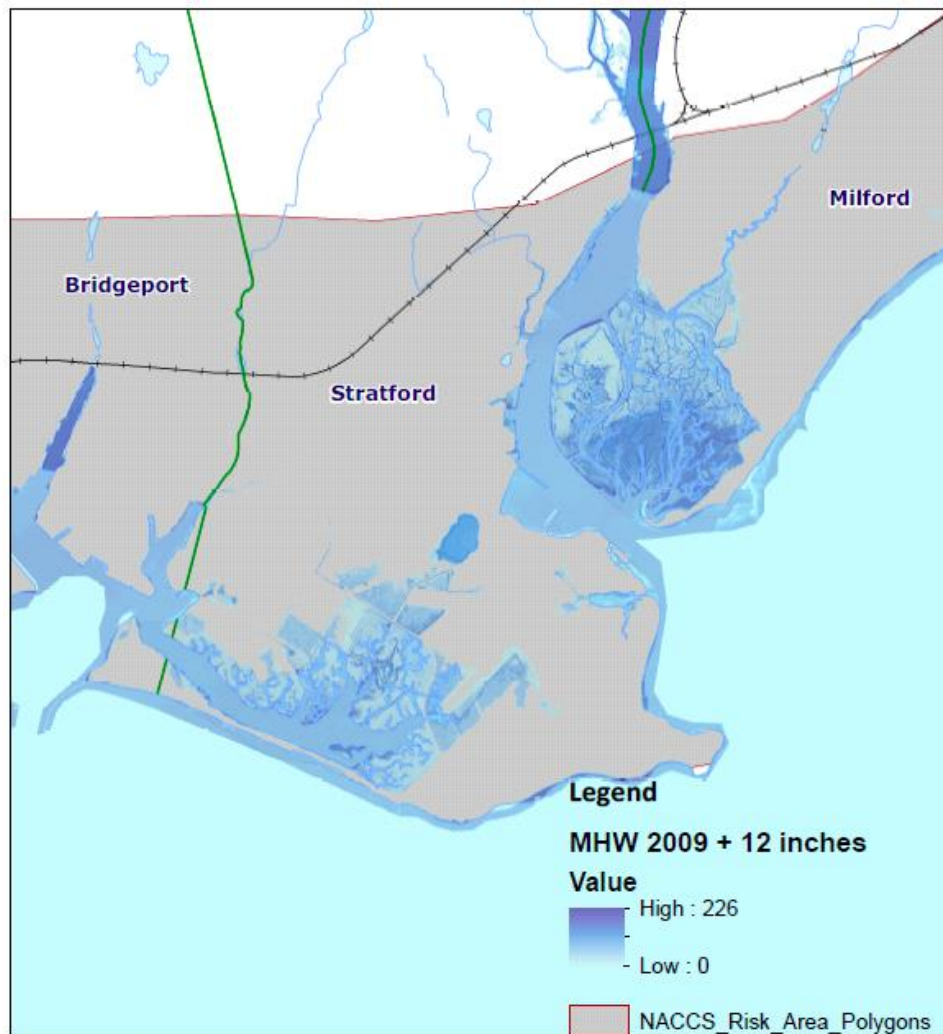


Figure 32: FEMA Flood Hazard Areas for Fairfield County

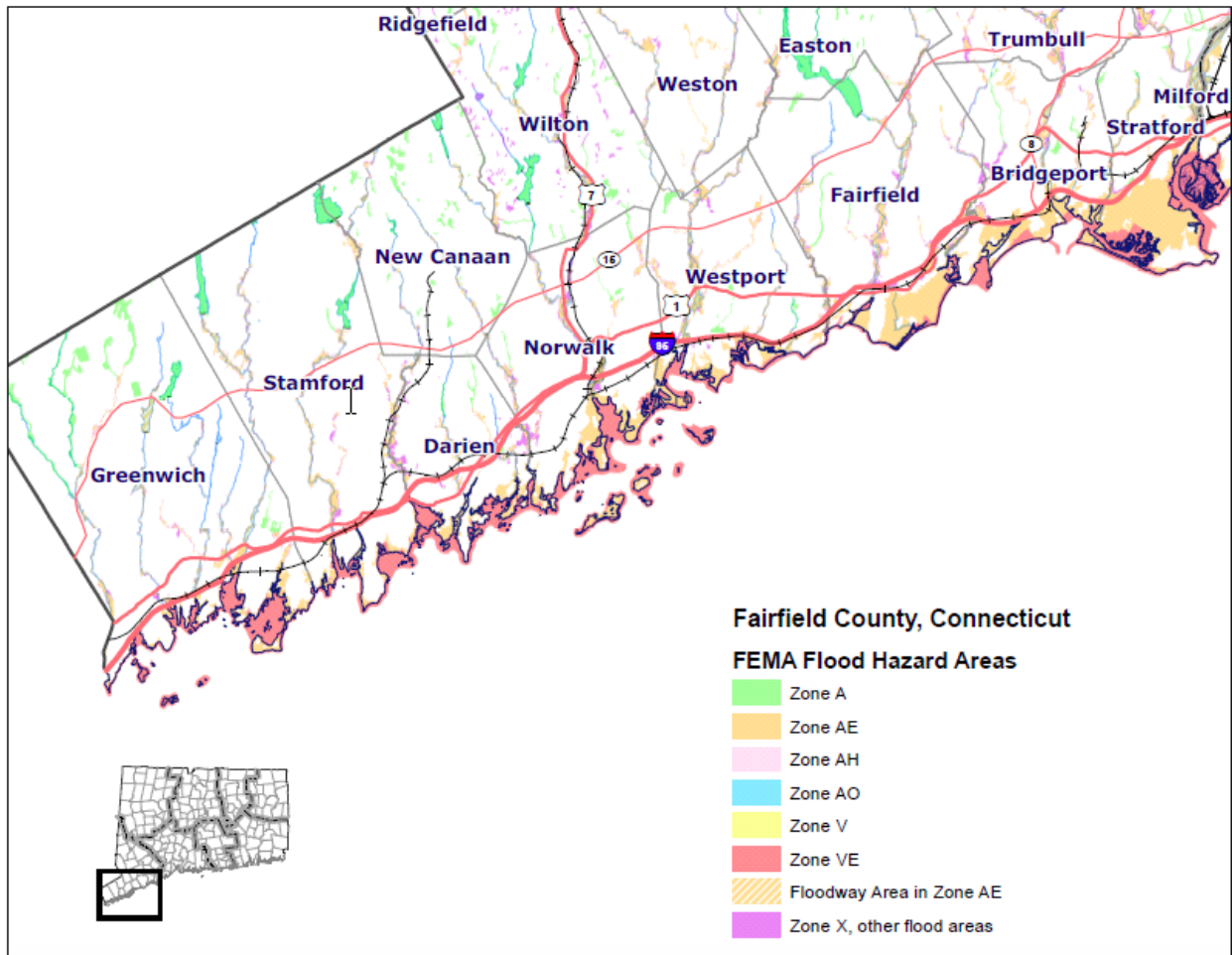


Figure 33: FEMA Flood Hazard Areas for New Haven County

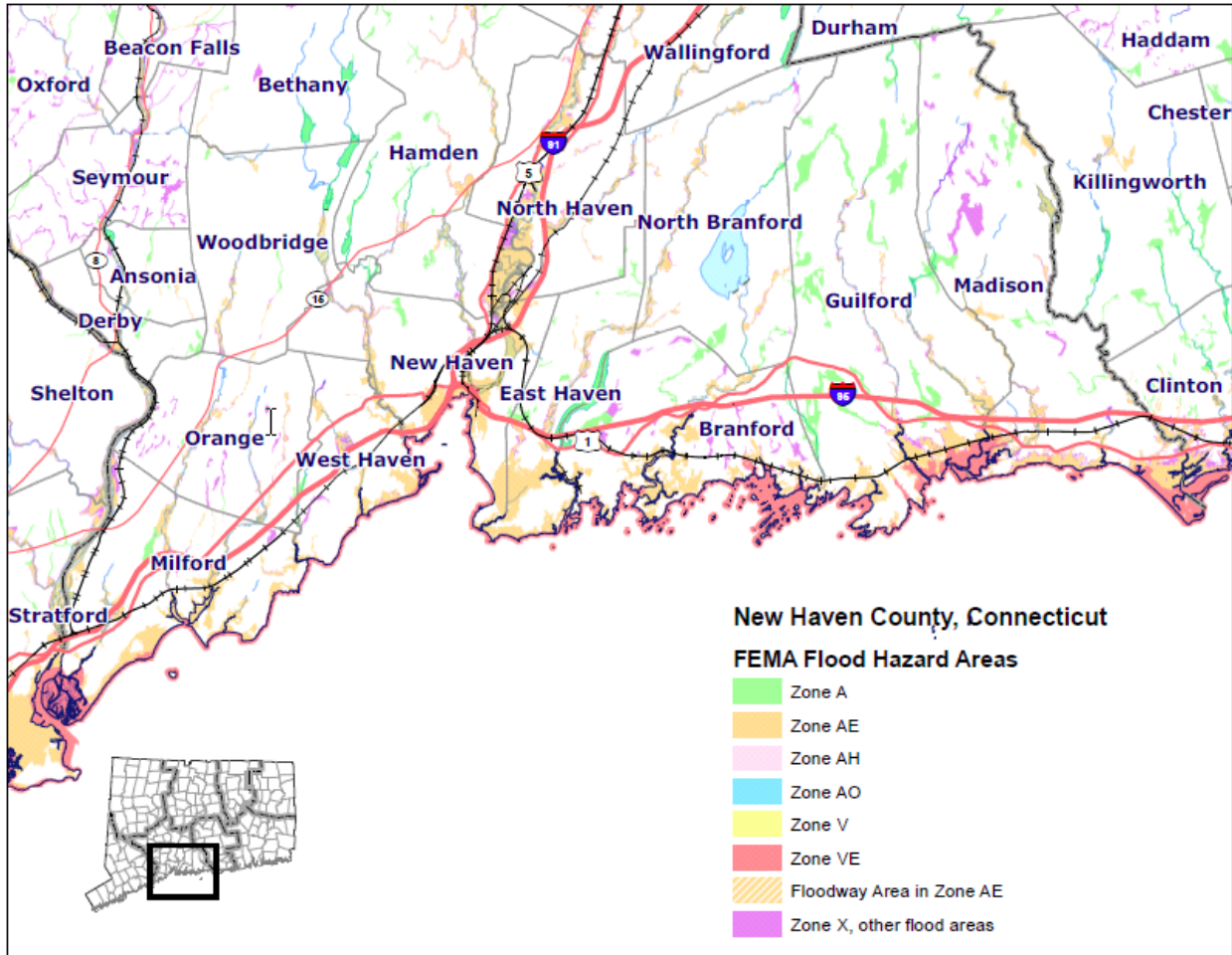


Figure 34: Hurricane Inundation Areas as predicted by the Sea, Lake, and Overland Surges from Hurricanes (SLOSH) model in Fairfield County

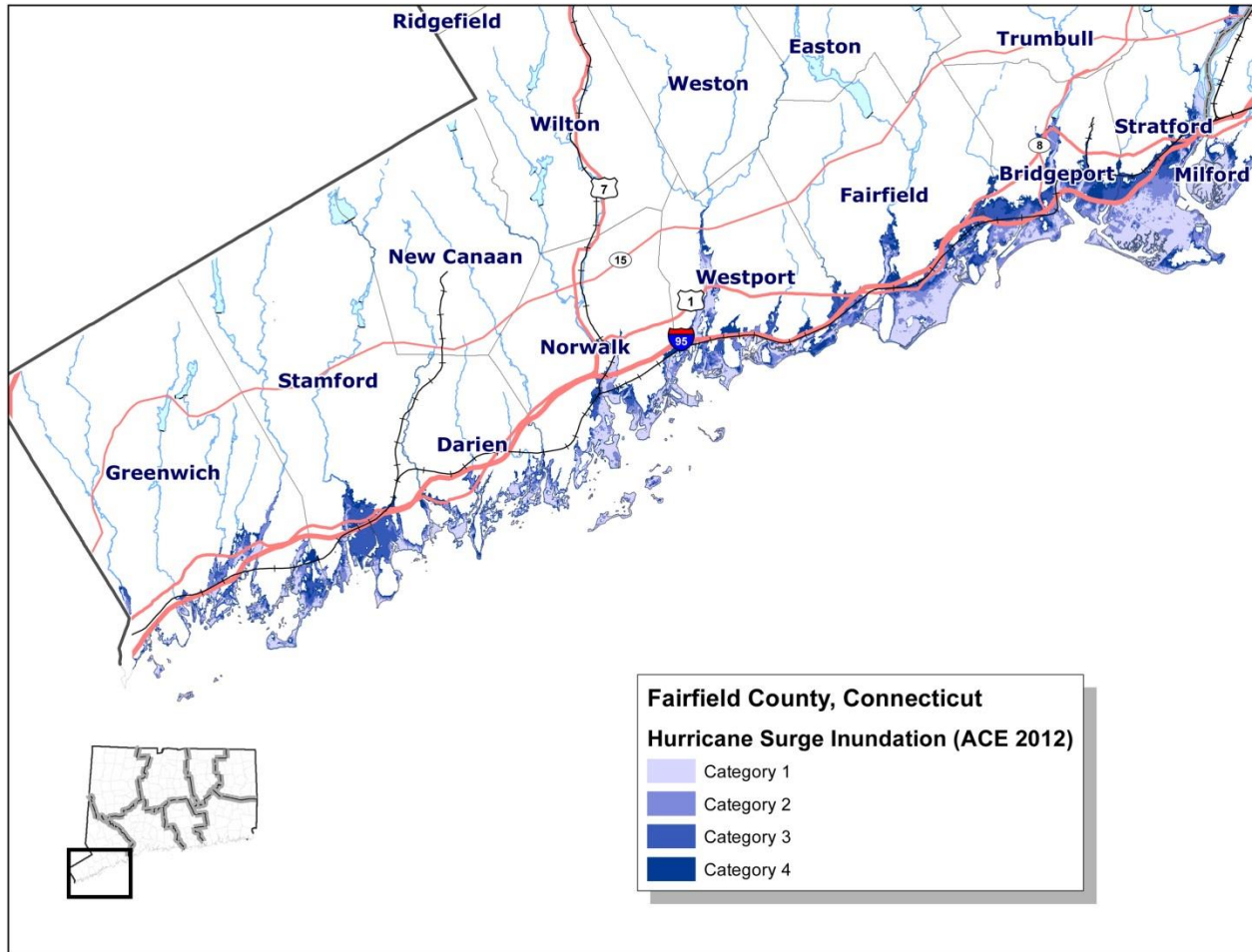


Figure 35: Hurricane Inundation Areas as predicted by the Sea, Lake, and Overland Surges from Hurricanes (SLOSH) model in New Haven County

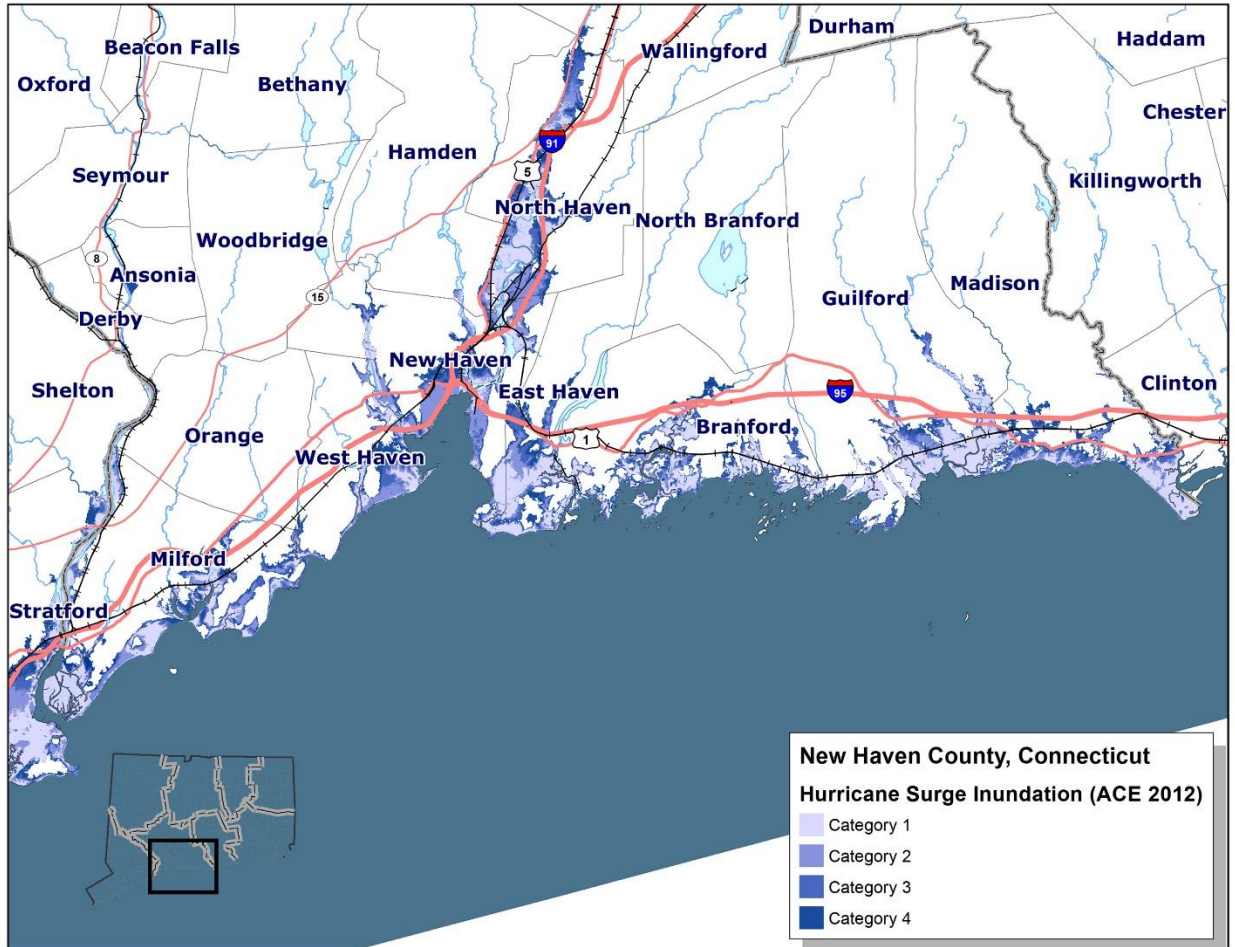


Figure 36. Observed Change in Very Heavy Precipitation. (Walsh, J., D. Wuebbles, K. Hayhoe, J. Kossin, K. Kunkel, G. Stephens, P. Thorne, R. Vose, M. Wehner, J. Willis, D. Anderson, S. Doney, R. Feely, P. Hennon, V. Kharin, T. Knutson, F. Landerer, T. Lenton, J. Kennedy, and R. Somerville, 2014: Ch. 2: Our Changing Climate. *Climate Change Impacts in the United States: The Third National Climate Assessment*, J. M. Melillo, Terese (T.C.) Richmond, and G. W. Yohe, Eds., U.S. Global Change Research Program, 19-67. doi:10.7930/J0KW5CXT

Observed Change in Very Heavy Precipitation

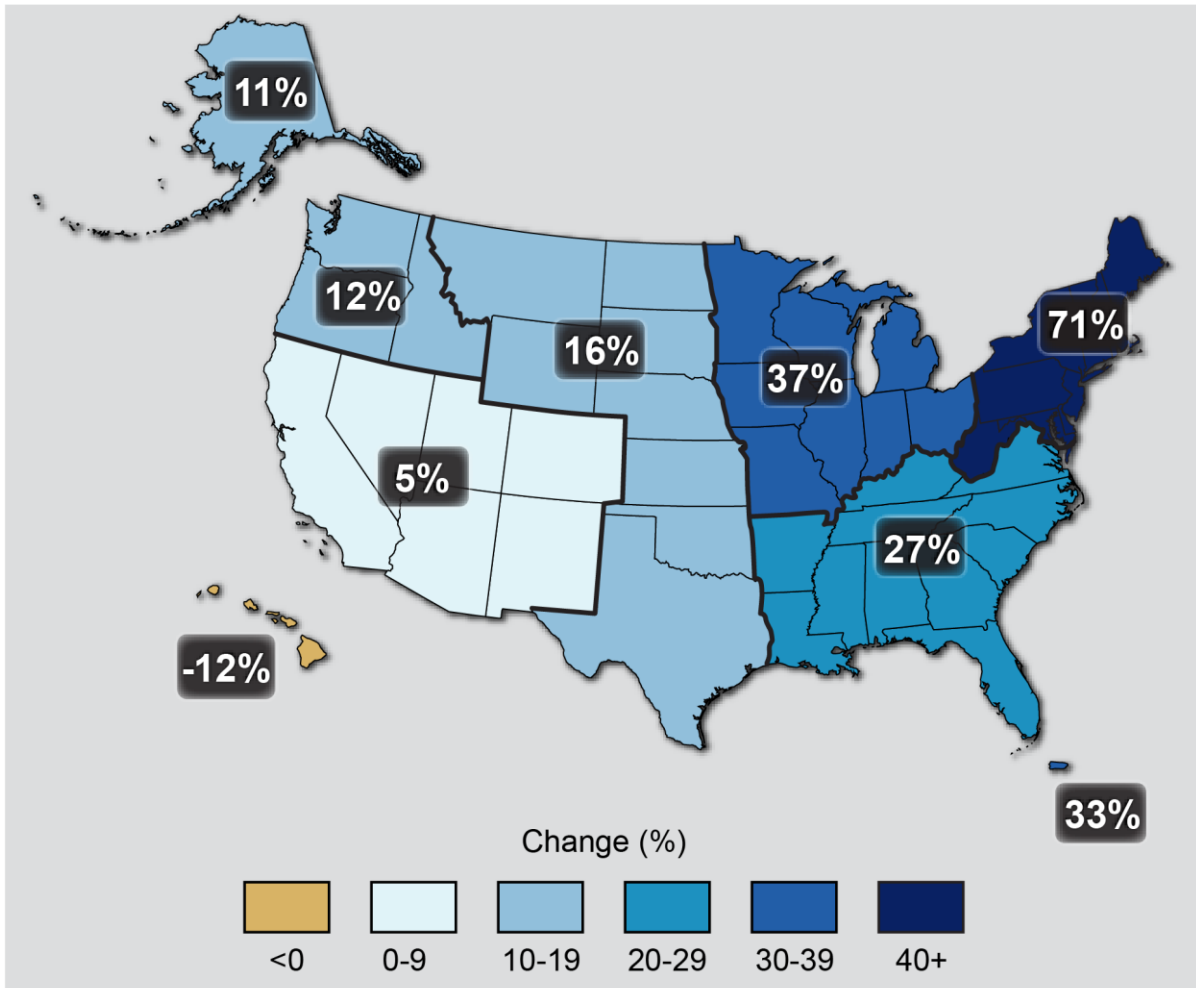
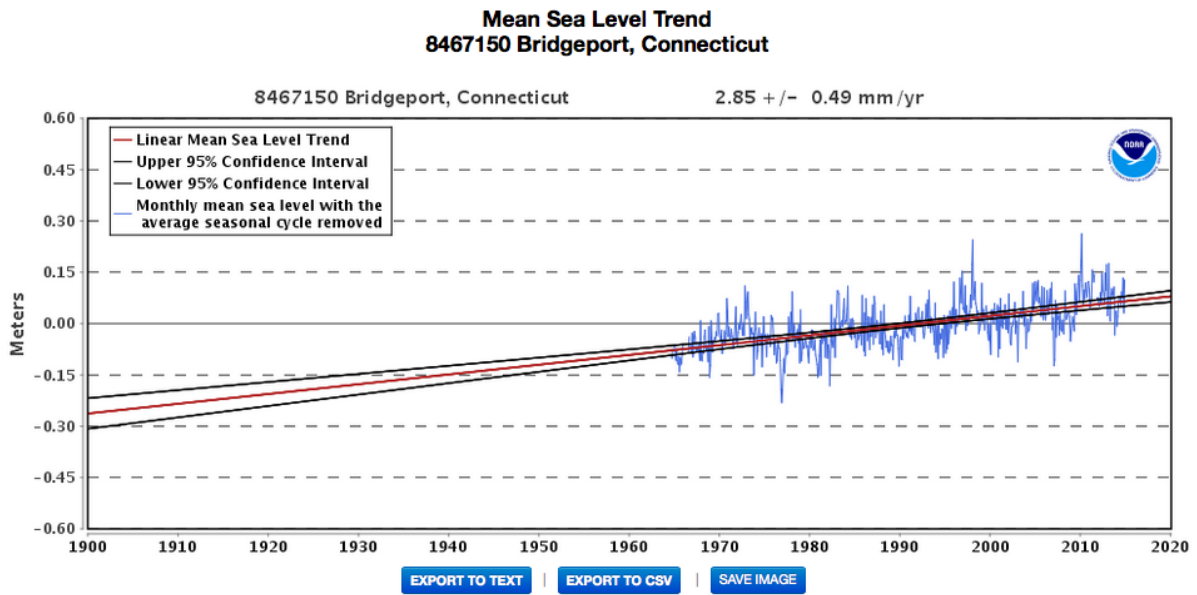


Figure 37: Mean Sea Level trend for Bridgeport, CT



The mean sea level trend is 2.85 millimeters/year with a 95% confidence interval of +/- 0.49 mm/yr based on monthly mean sea level data from 1964 to 2013 which is equivalent to a change of 0.94 feet in 100 years.

Figure 38: Army Corps of Engineers Environmental Risk Index for Fairfield County

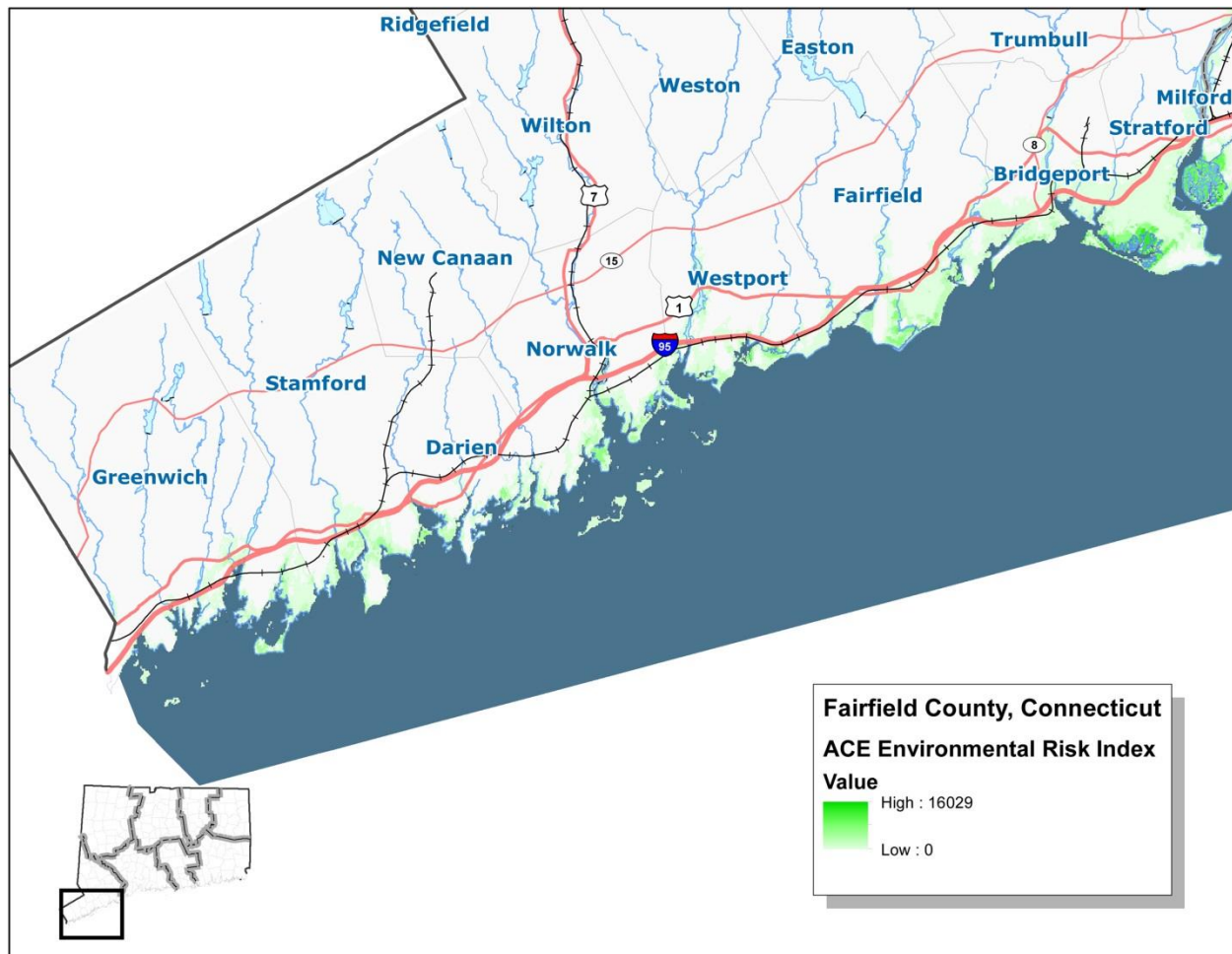


Figure 39: Army Corps of Engineers Environmental Risk Index for New Haven County

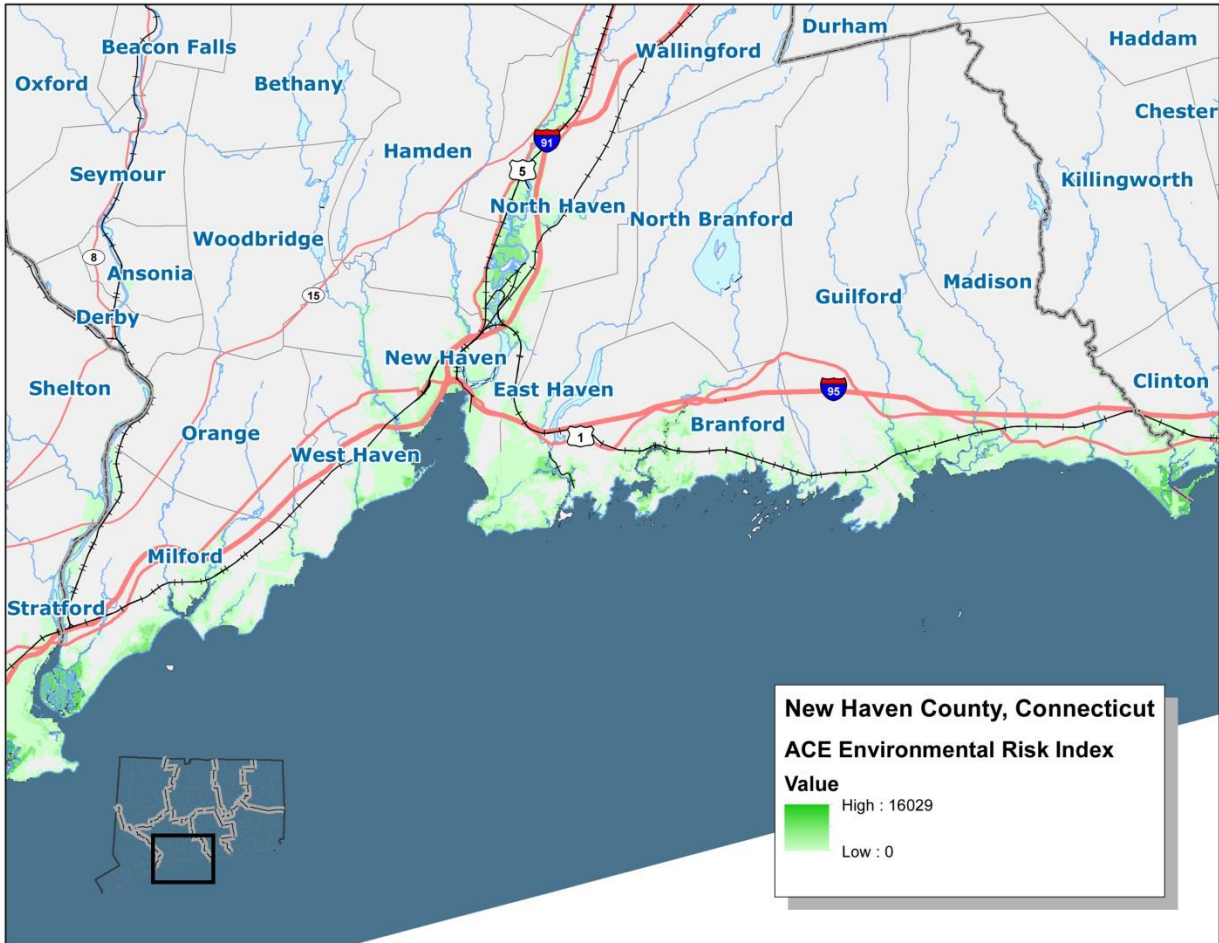


Figure 40: Army Corps of Engineers Social Vulnerability Risk Index for Fairfield County

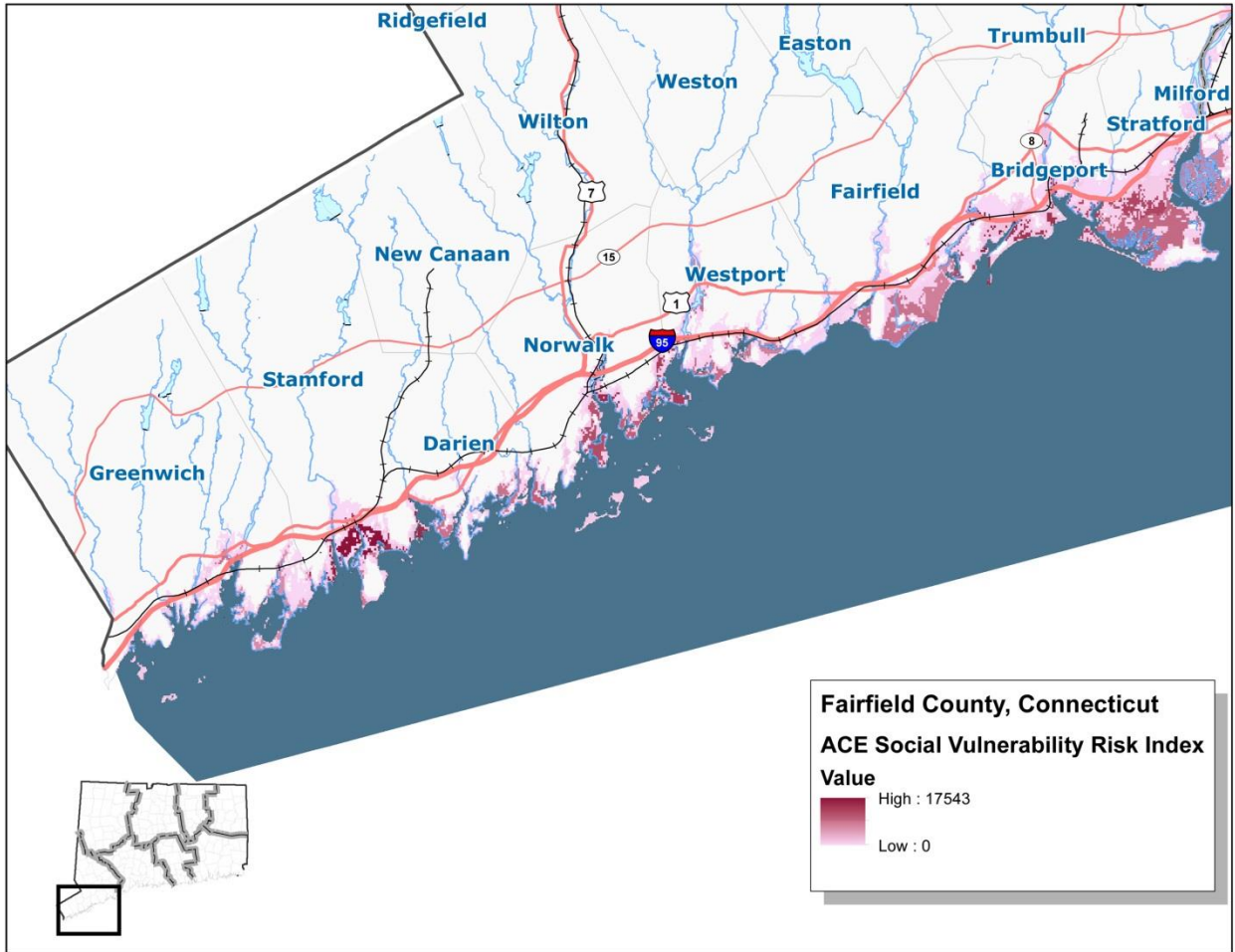


Figure 41: Army Corps of Engineers Social Vulnerability Risk Index for New Haven County

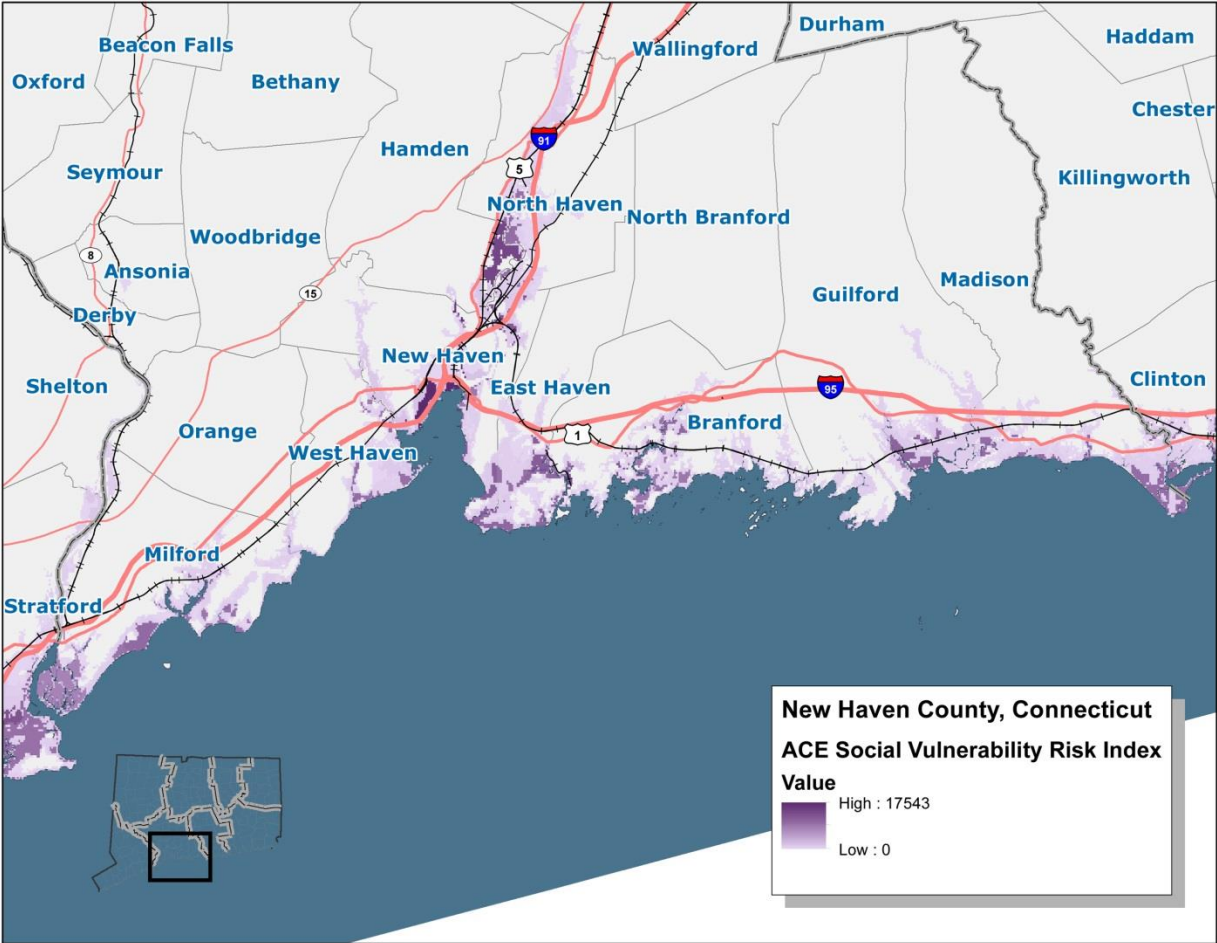


Figure 42: Army Corps of Engineers Infrastructure Risk Index for Fairfield County

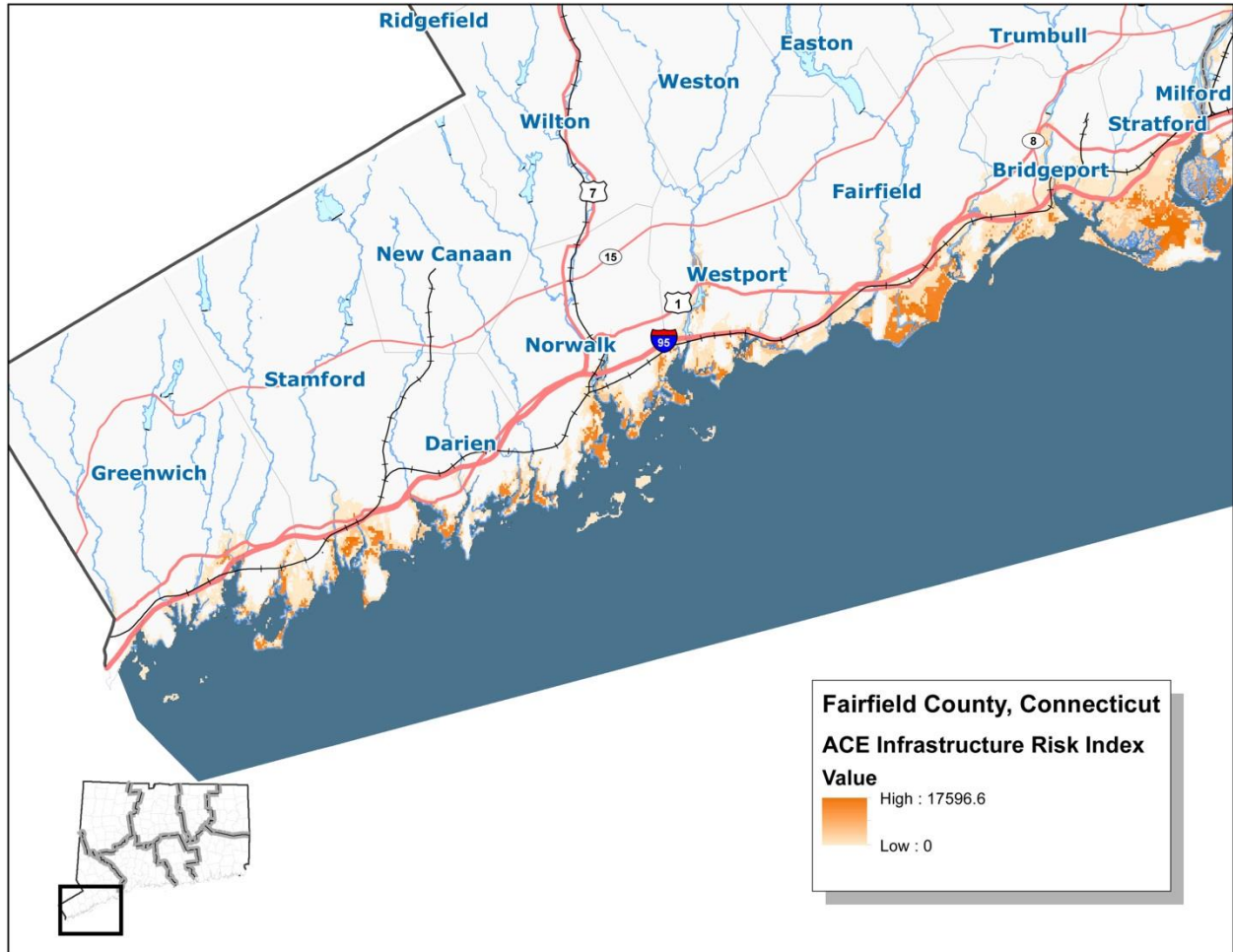


Figure 44: Army Corps of Engineers Composite Risk Index Value for Fairfield County

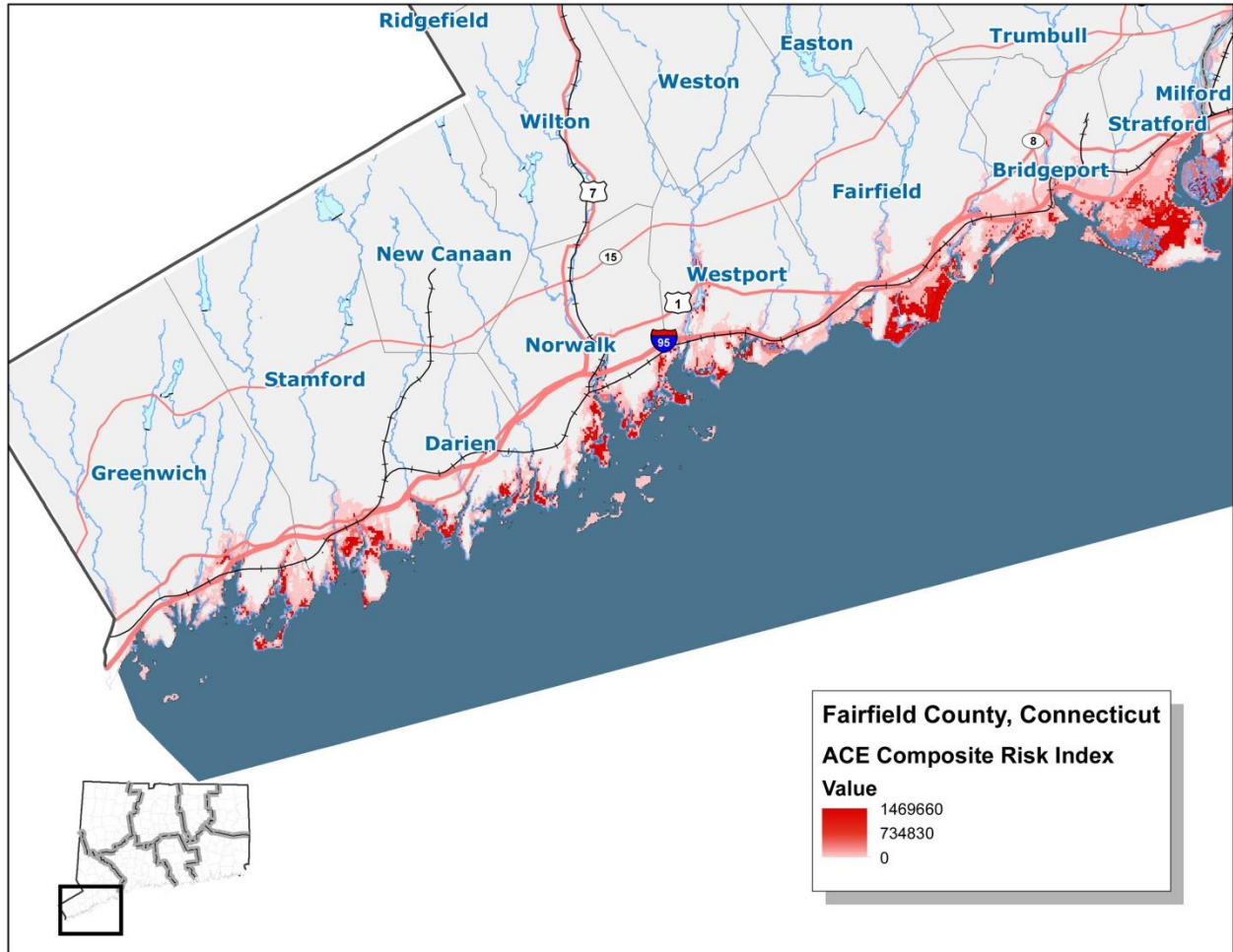


Figure 45: Army Corps of Engineers Composite Risk Index Value for New Haven County

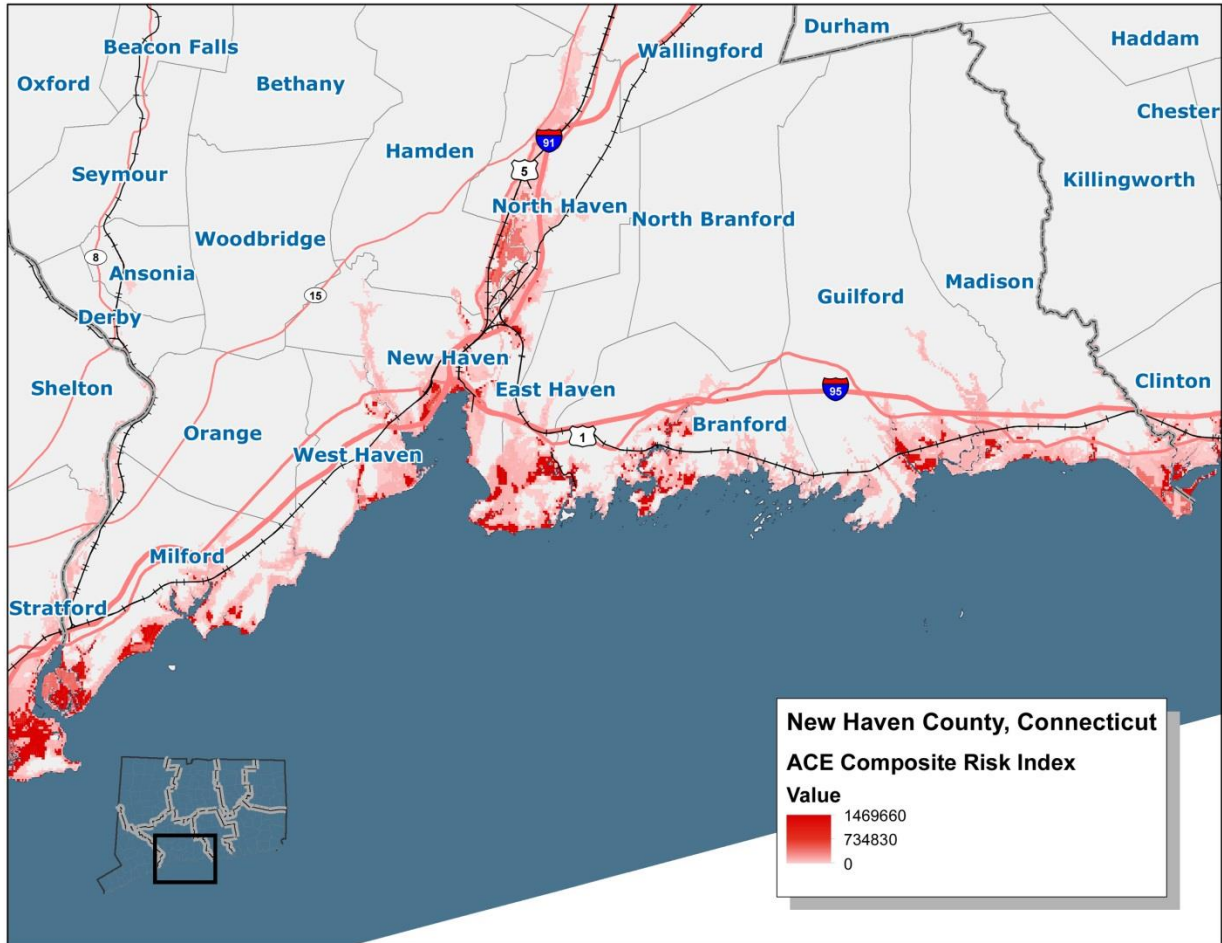


Figure 46: Army Corps of Engineers Risk Areas Fairfield County

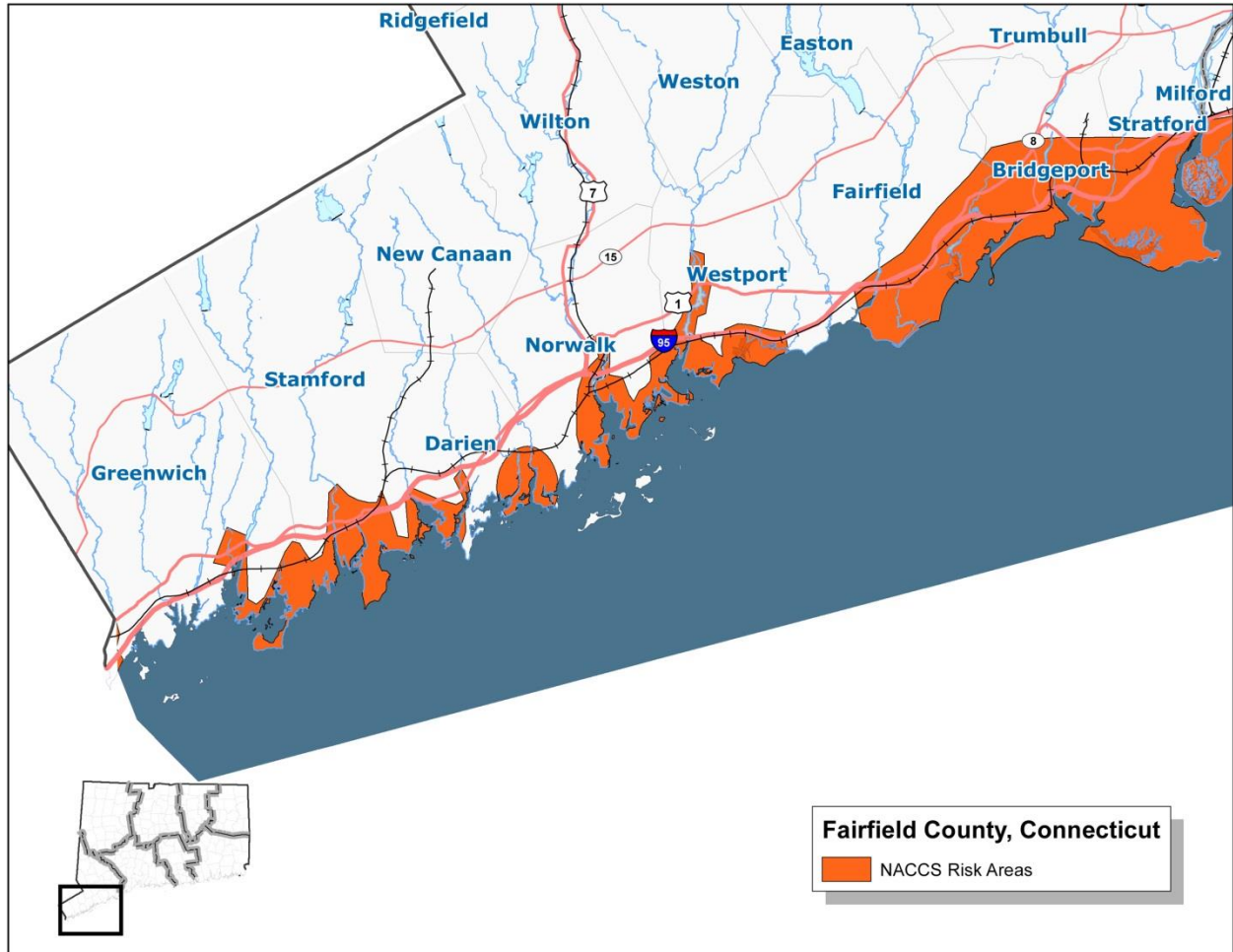


Figure 47: Army Corps of Engineers Risk Areas New Haven County

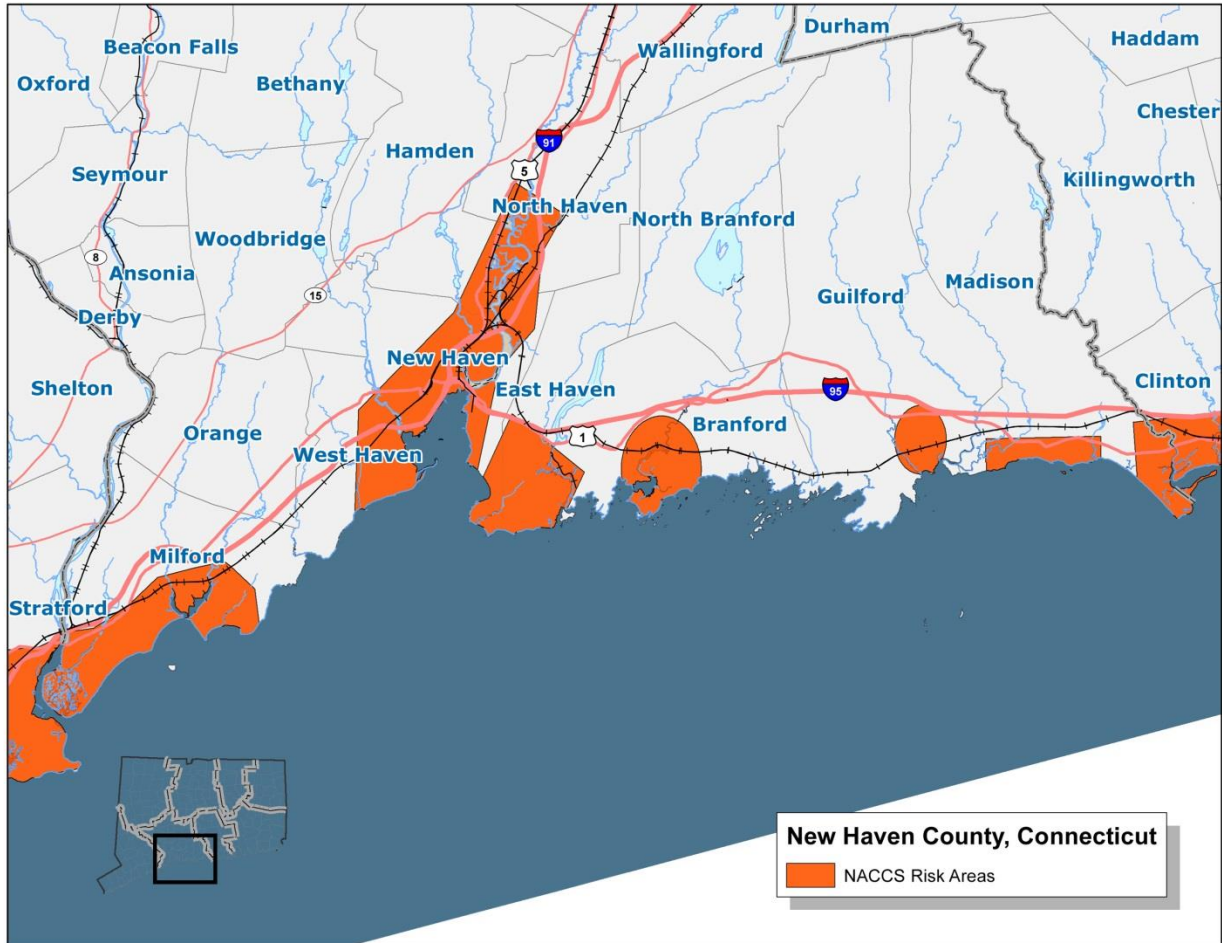


Figure 48: Site-specific Mapping Technique to Guide Project Selection

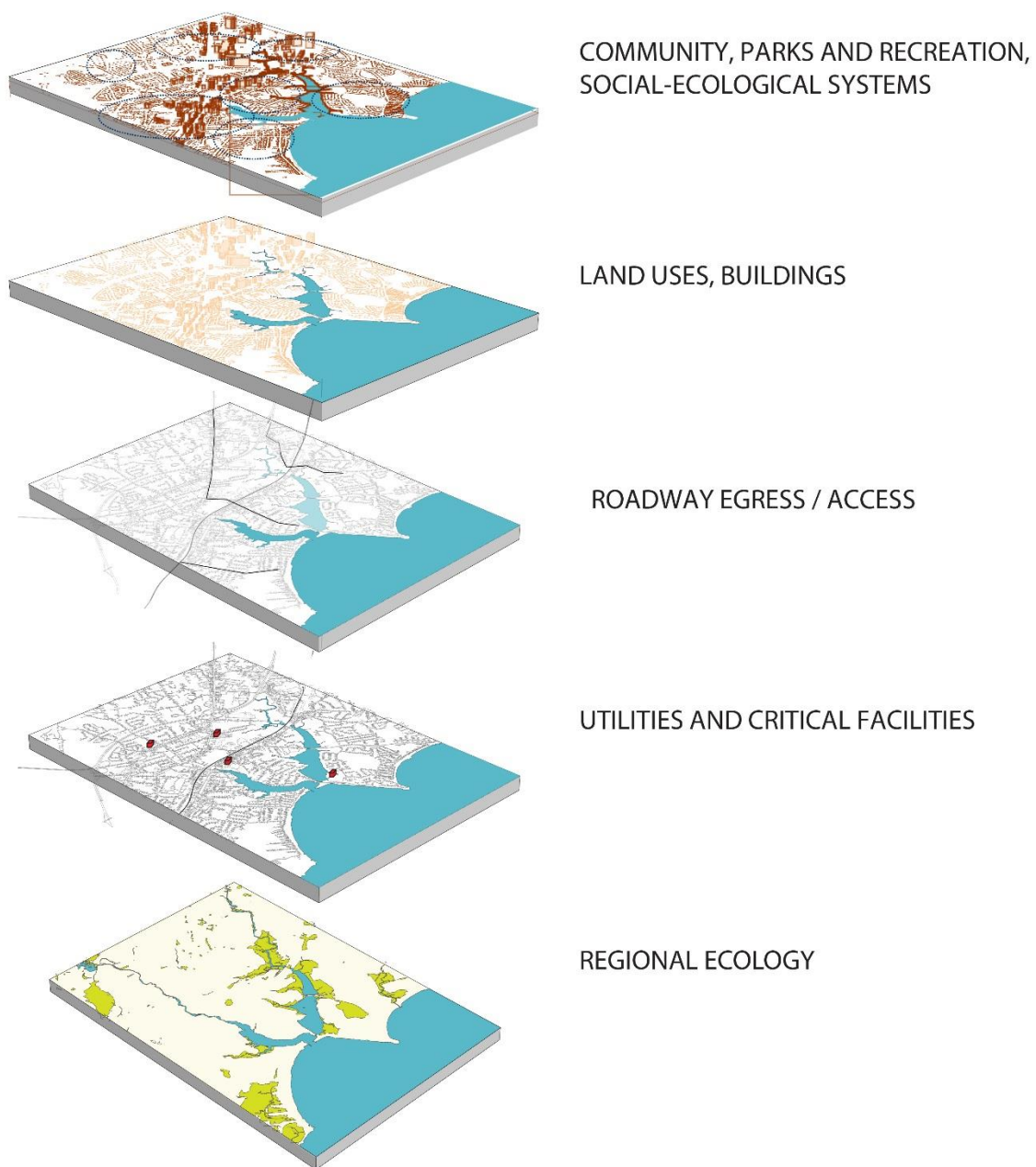


Figure 49: Egress typologies Vulnerable to Flooding; Potential “Pinch Points” in Evacuation Routes



Figure 50: Properties Damaged by Hurricane Sandy in Fairfield County

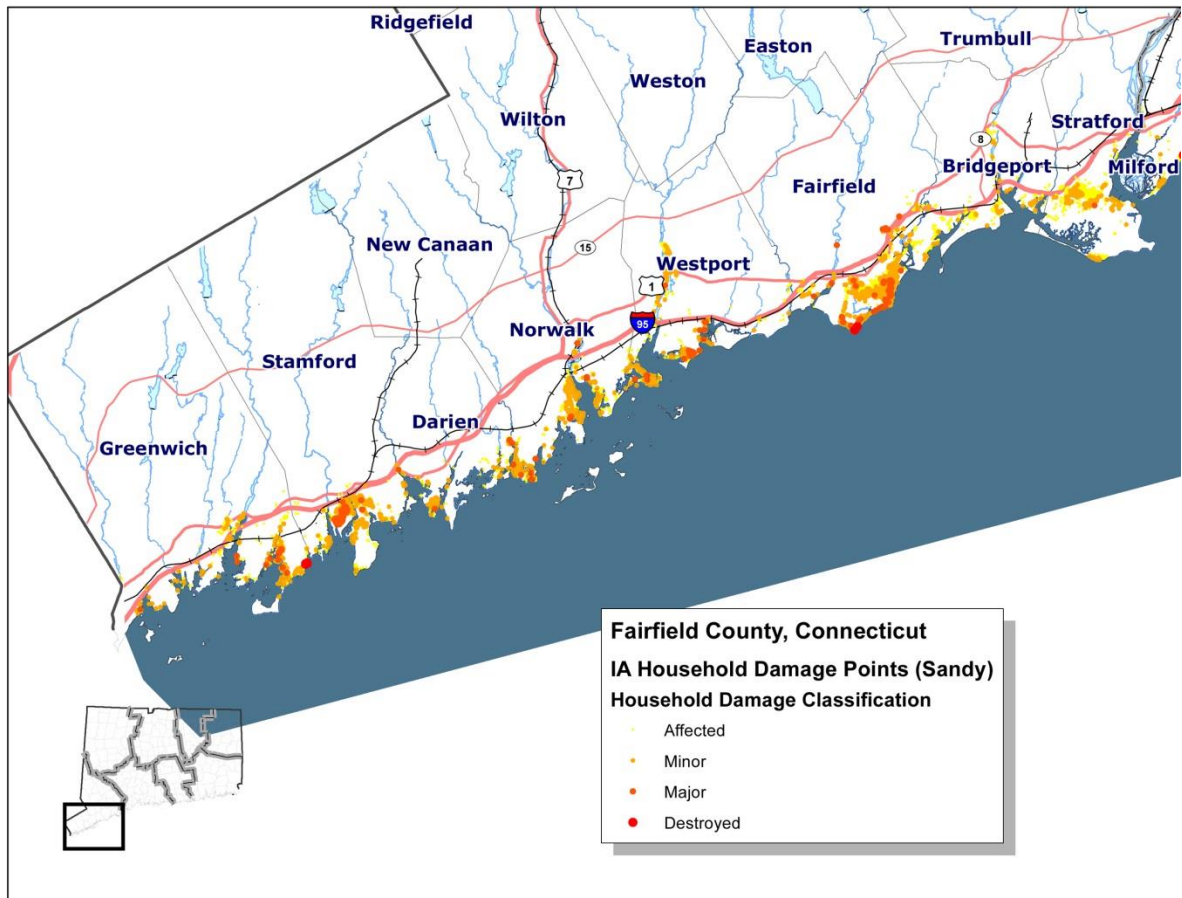


Figure 51: Properties Damaged by Hurricane Sandy in New Haven County

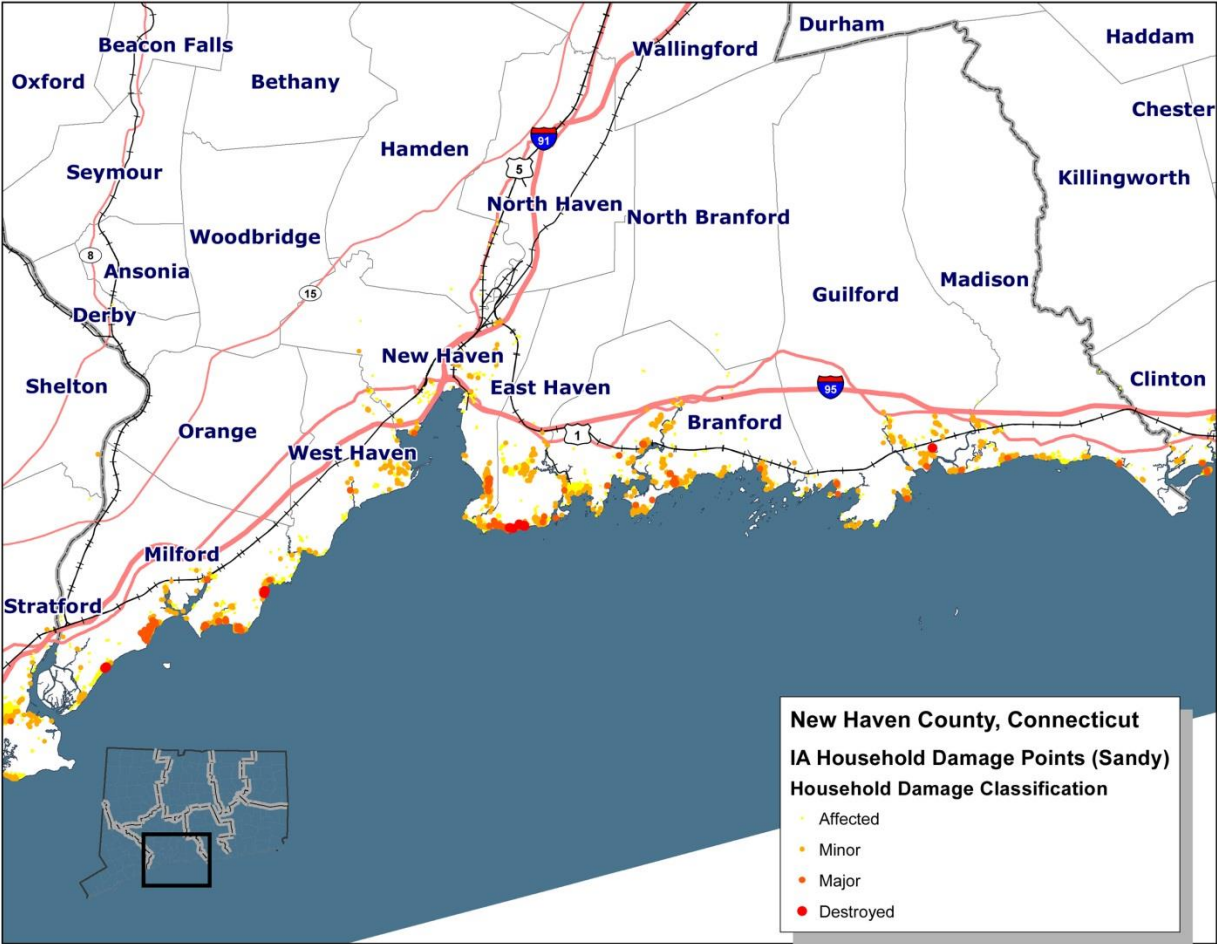


Figure 52: Areas of Repetitive Loss Properties in Fairfield and New Haven Counties

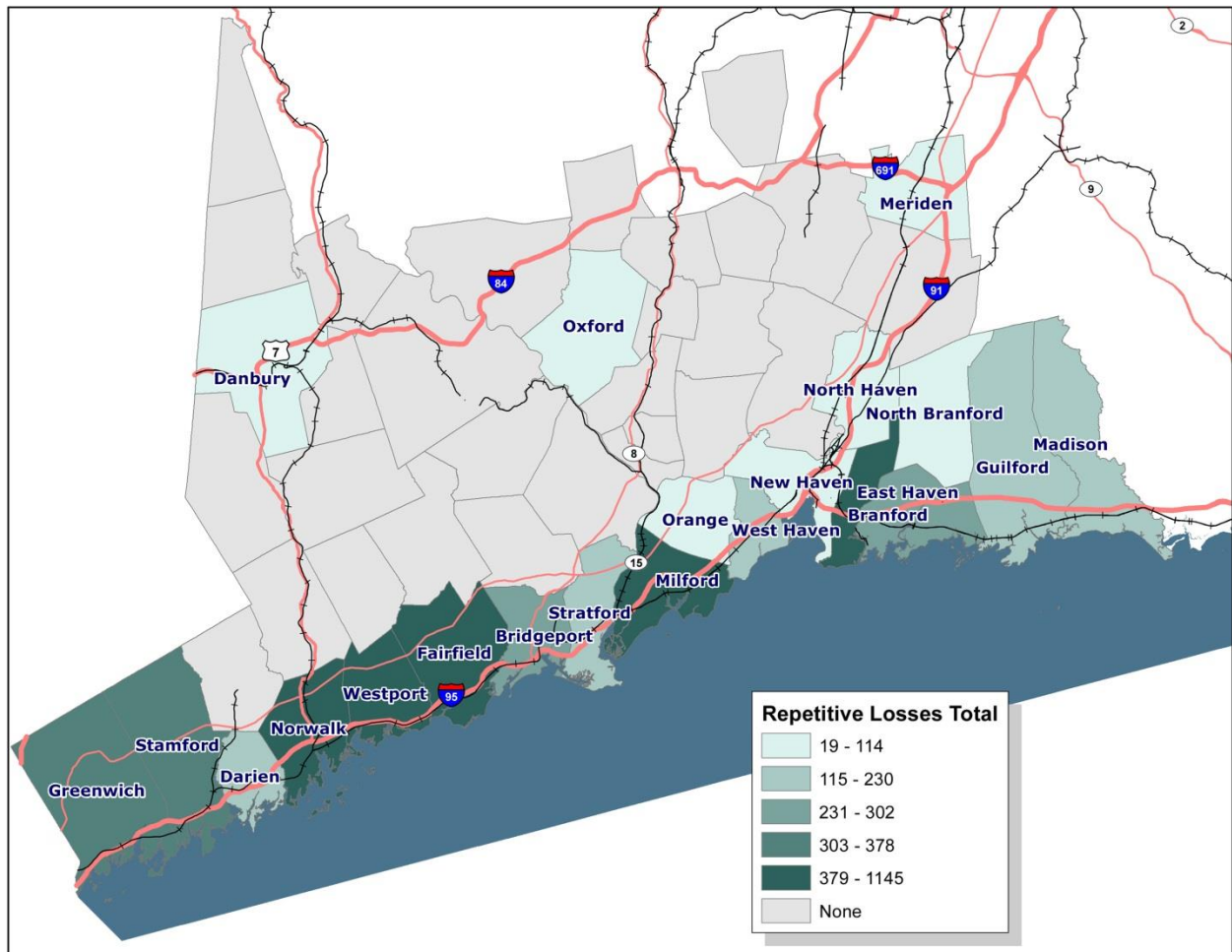


Figure 53: Repetitive Loss Costs in Fairfield and New Haven Counties

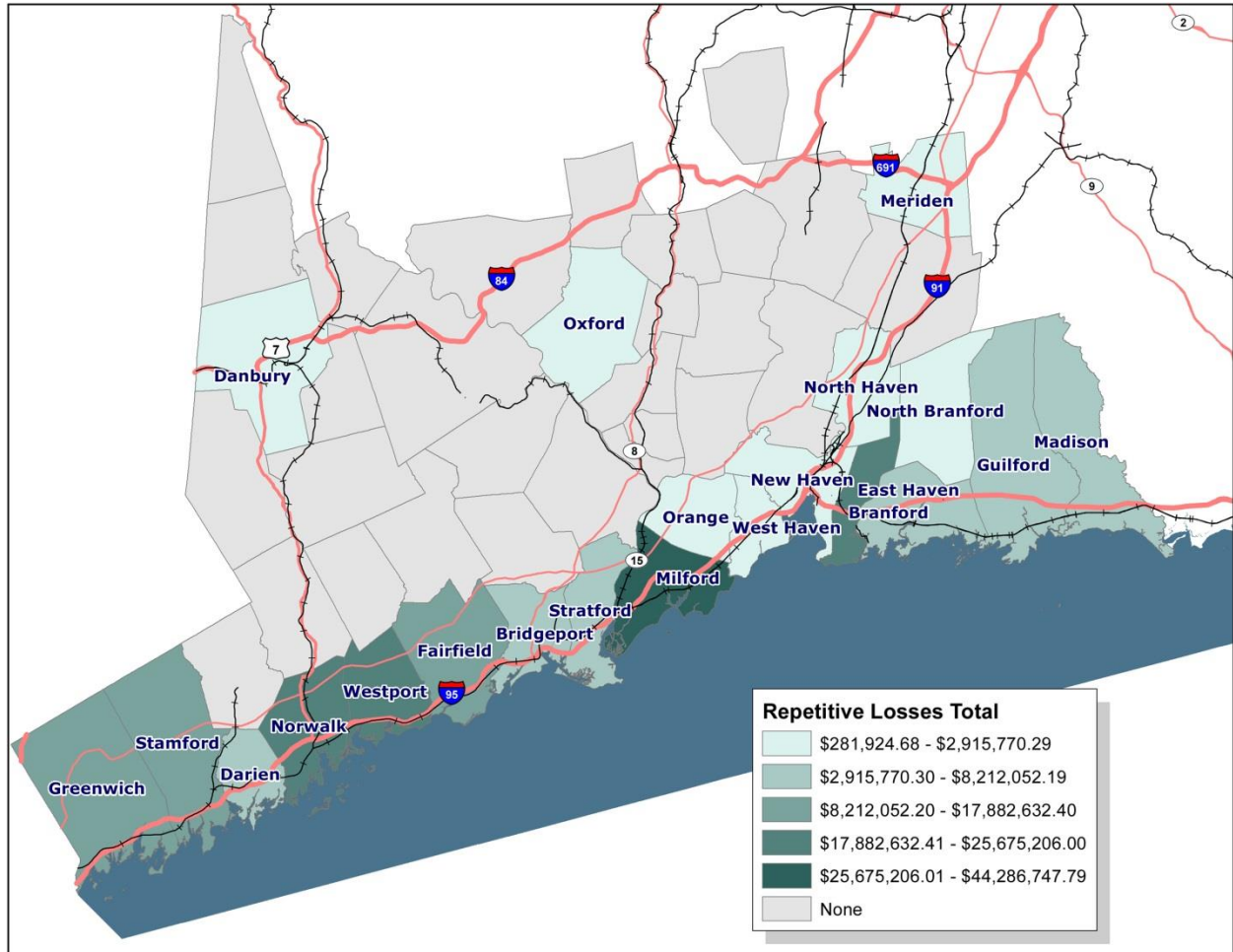


Figure 54: Areas of Severe Repetitive Loss Properties in Fairfield and New Haven Counties

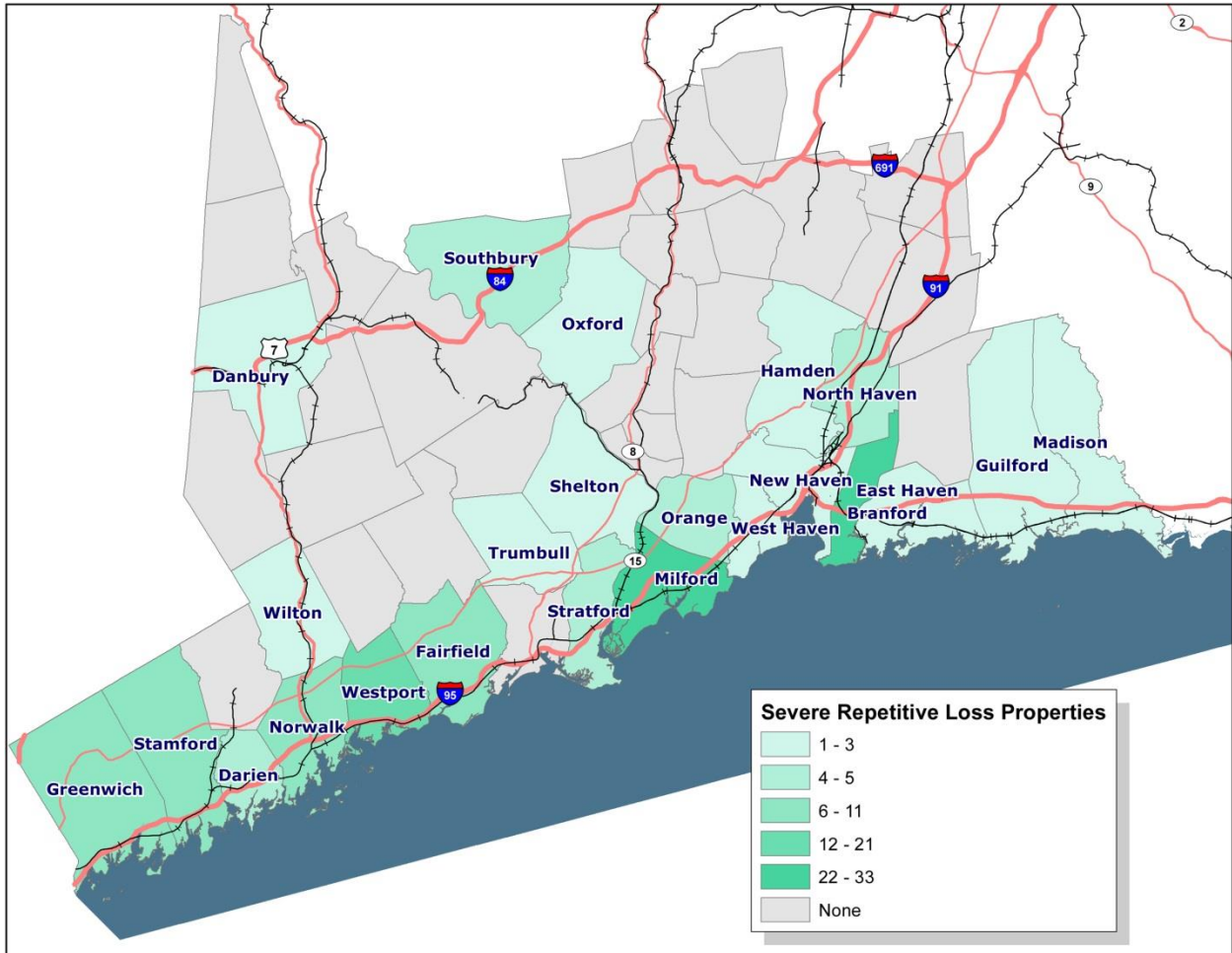


Figure 55: Severe Repetitive Loss Costs in Fairfield and New Haven Counties

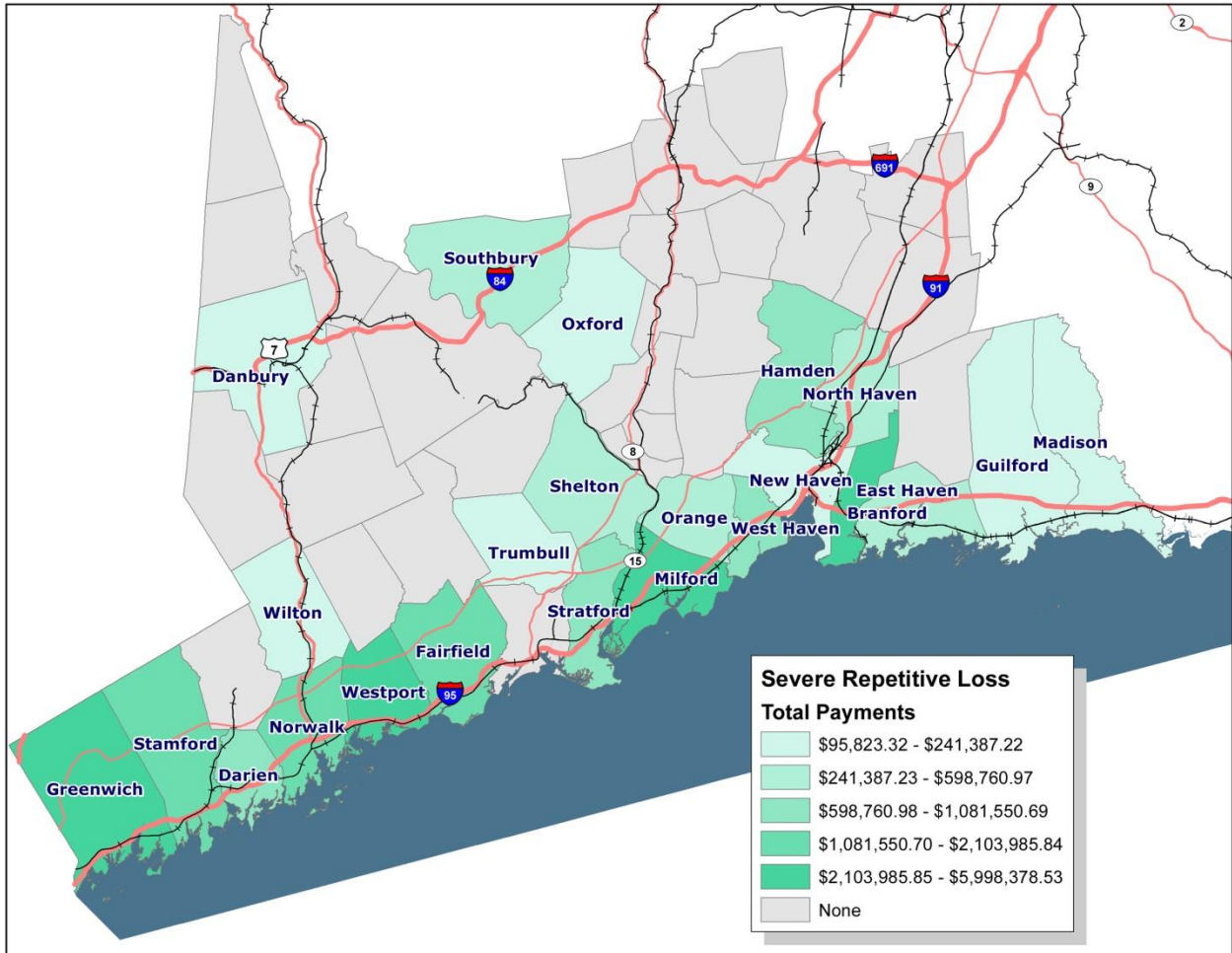


Figure 56: Communities hard hit by both Tropical Storm Irene and Hurricane Sandy (measured by federal expenditure for IHP grants for)

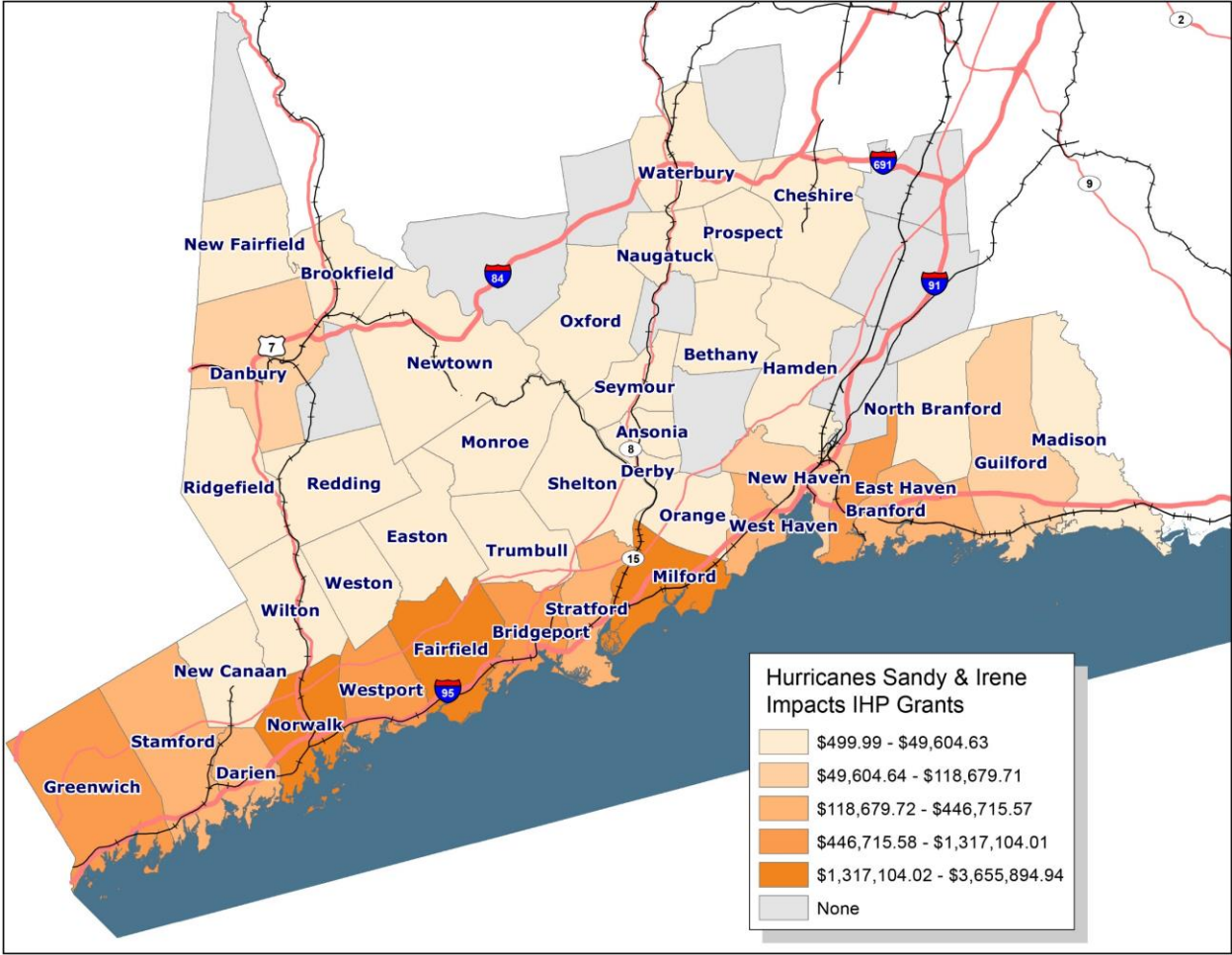


Figure 57: Quaternary Geology of Fairfield County

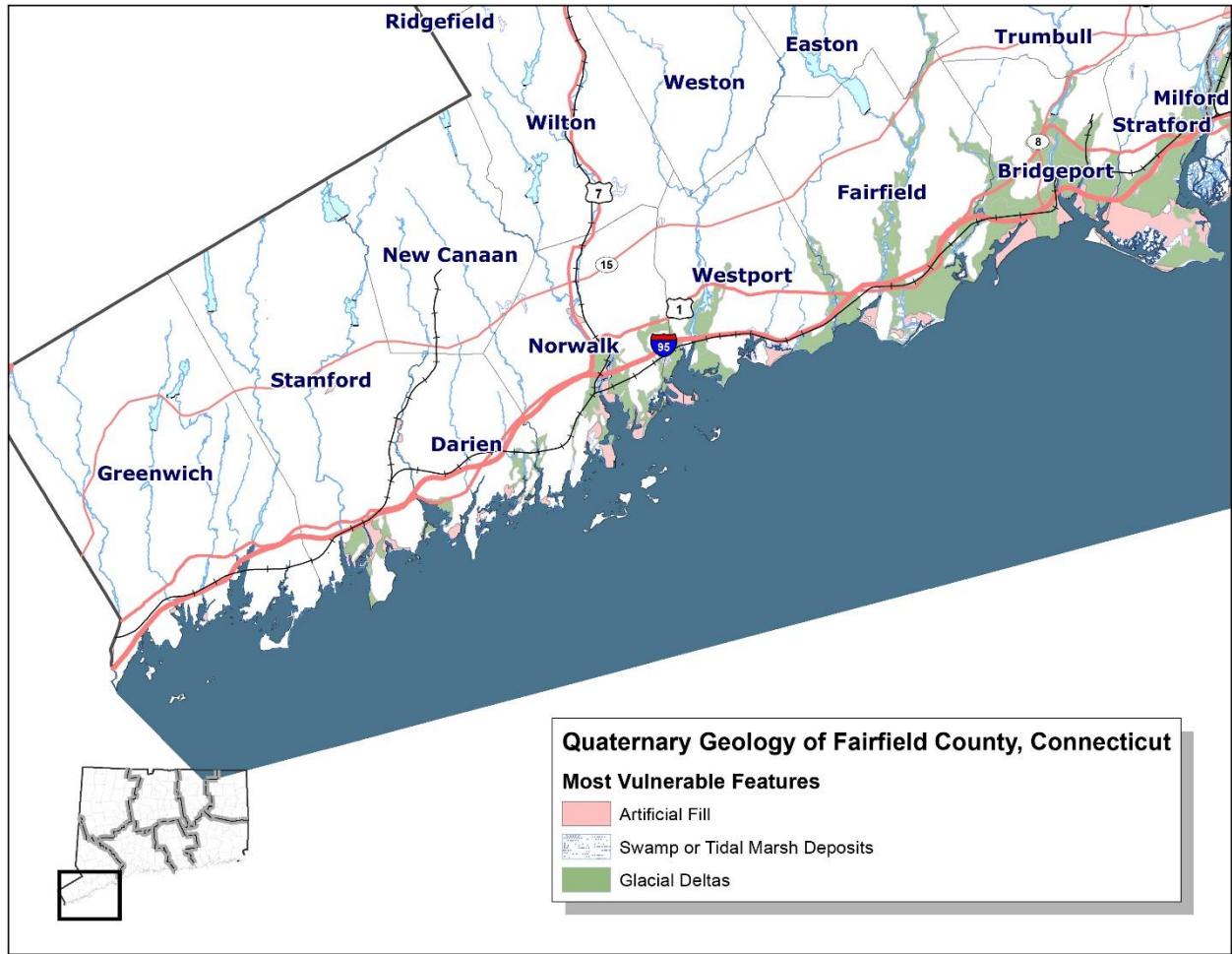


Figure 58: Quaternary Geology of New Haven County

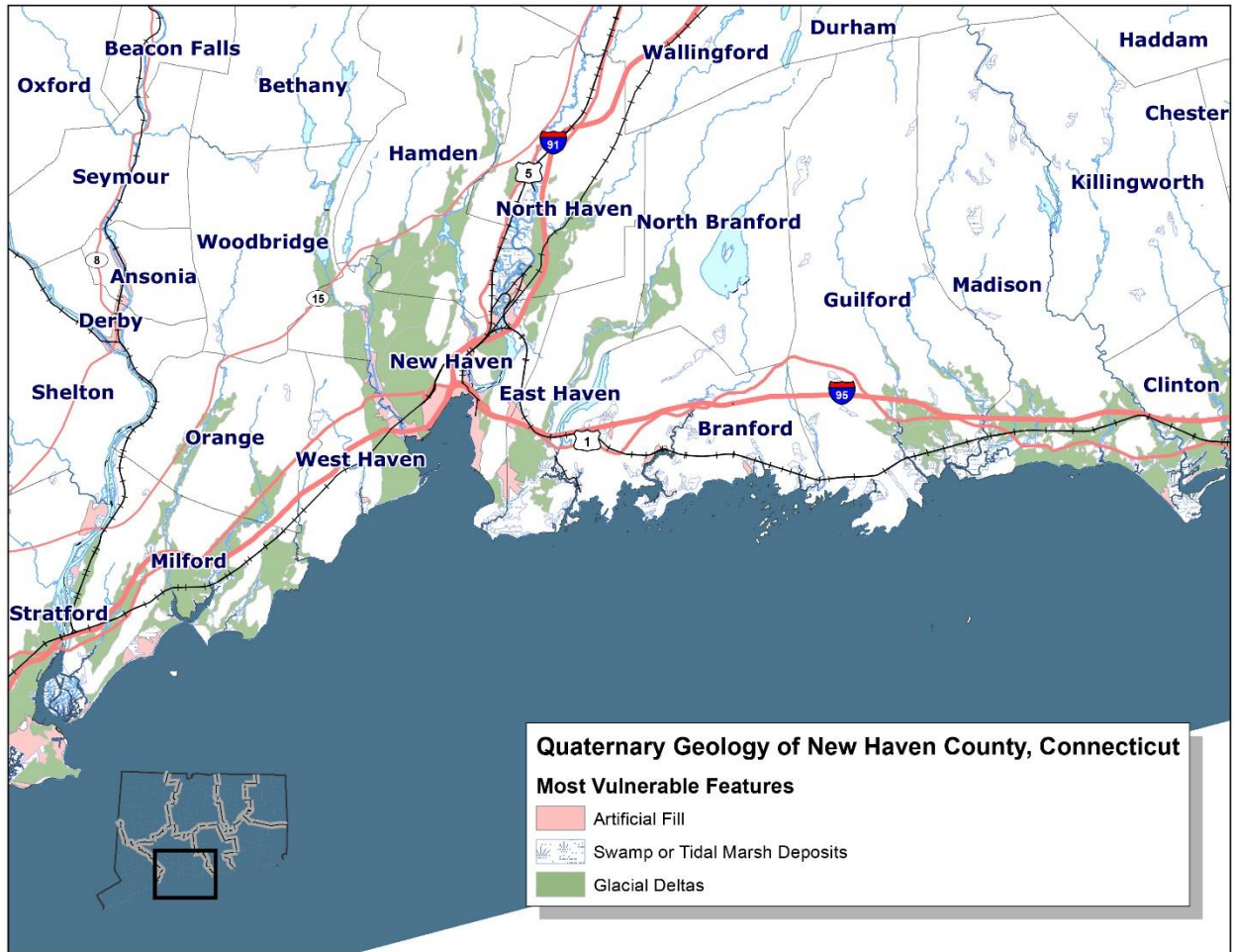


Figure 59: Vulnerable Coastal Typologies

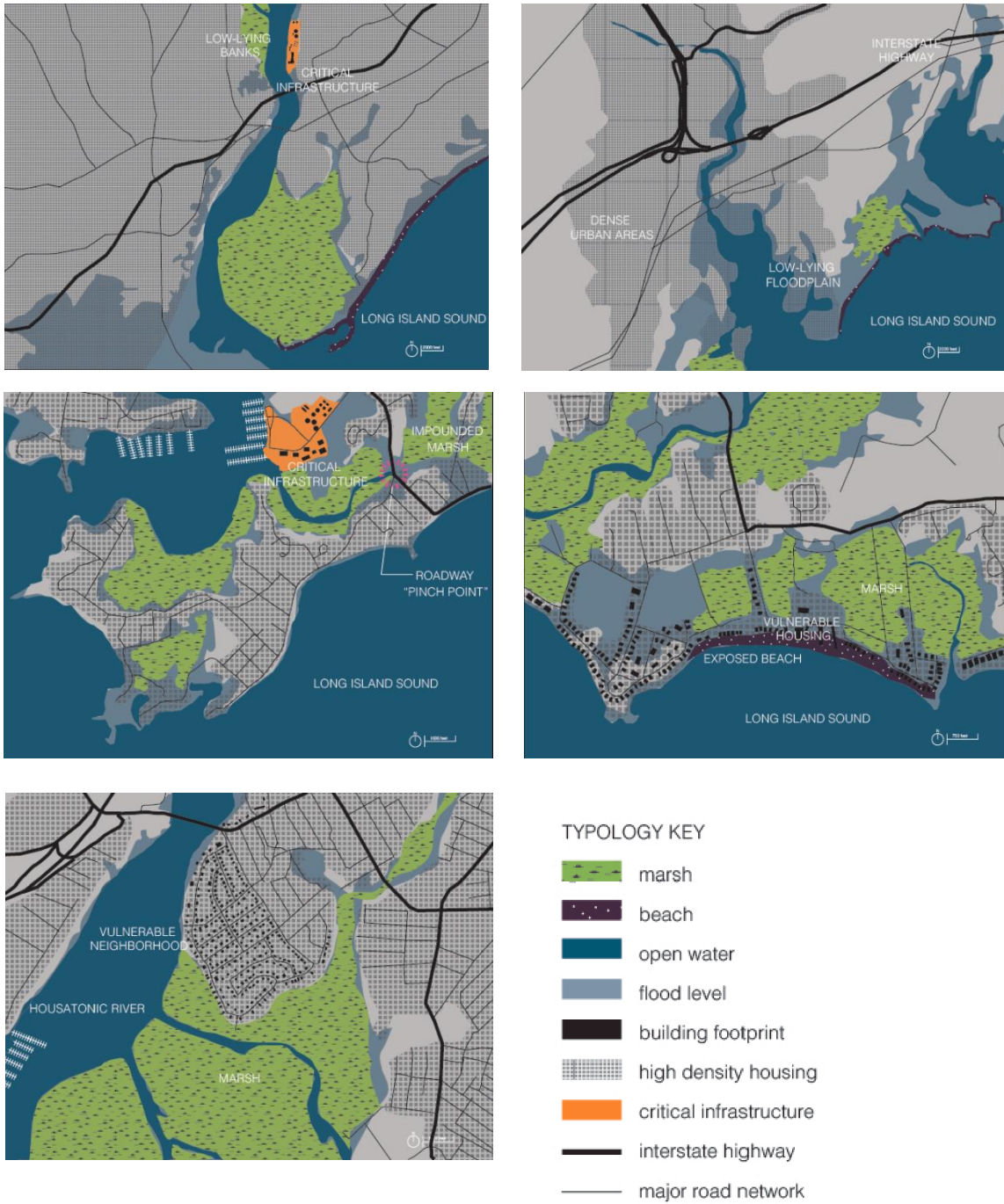


Figure 60: Frequency of Vulnerable Coastal Typology: Beaches Backed by Marsh along Fairfield & New Haven Counties' Coasts

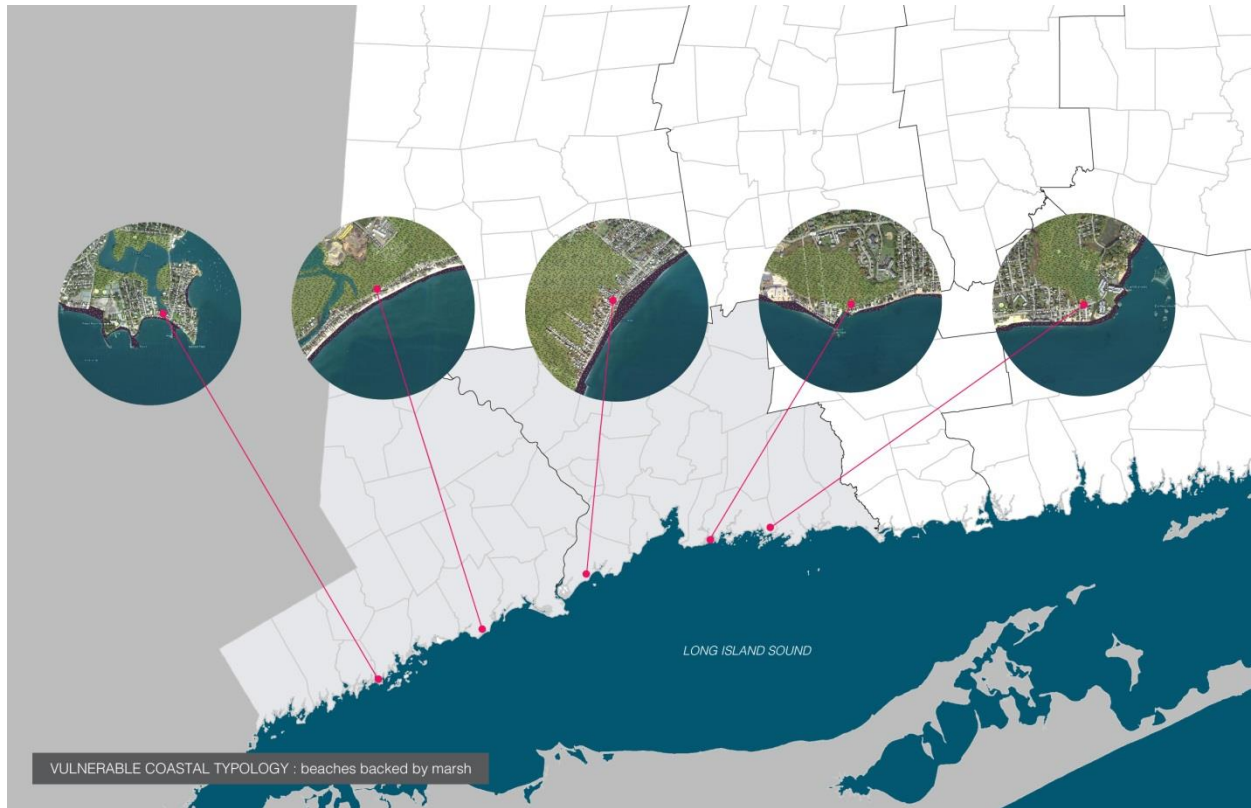


Figure 61: Brownfields in Fairfield and New Haven Counties

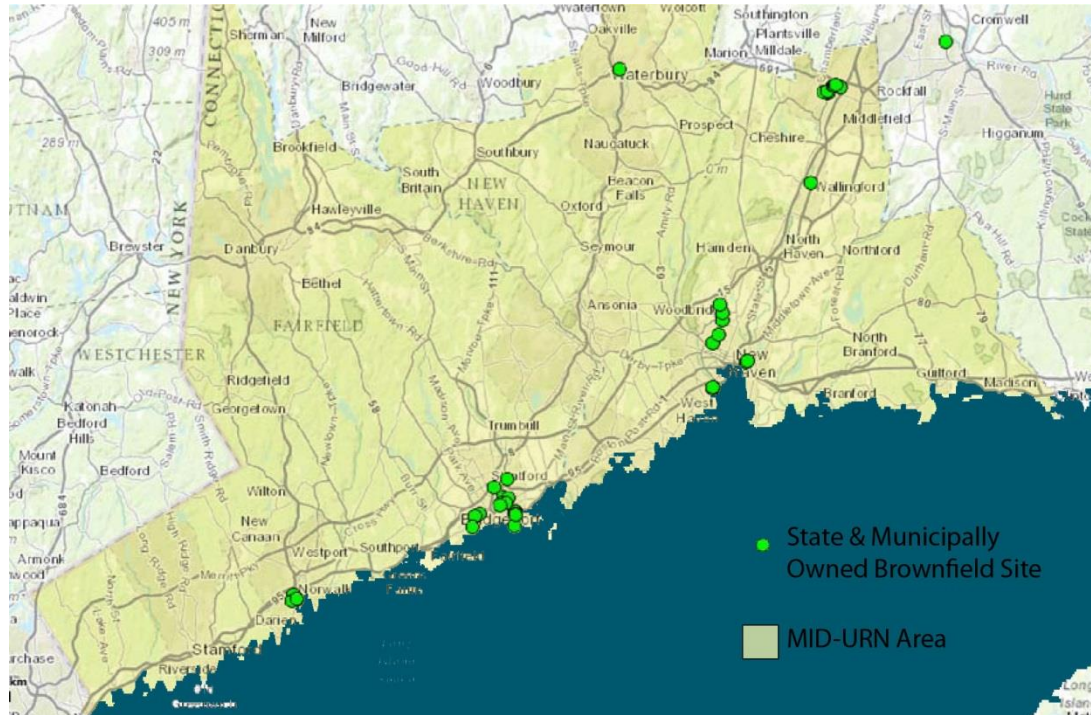
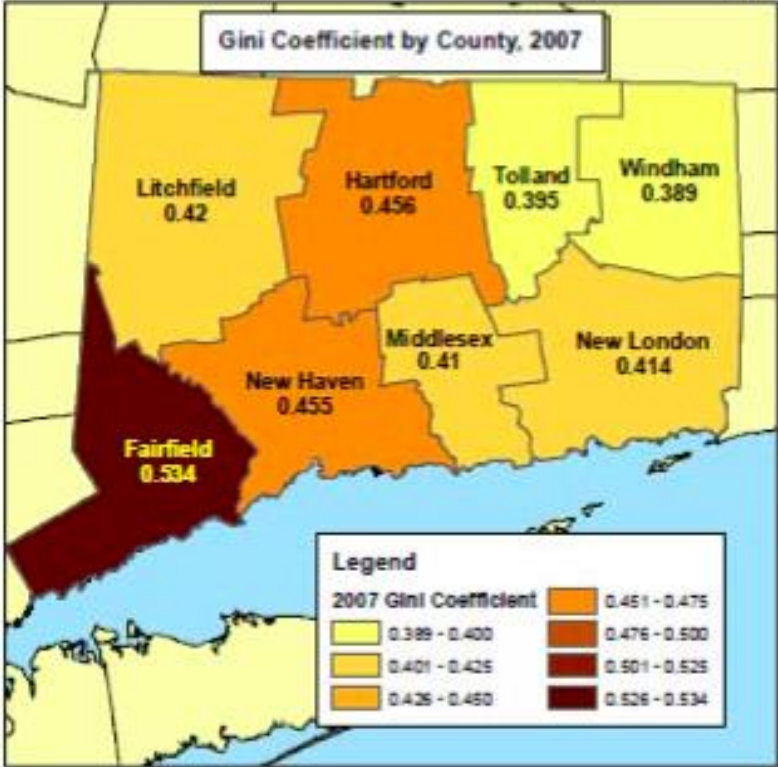


Figure 62: Gini coefficient (a measure of inequality) by county

Figure 2: Connecticut's Gini Coefficient by County, 2007



Source: Connecticut Voices for Children

Figure 63: Gini coefficient (a measure of inequality) in Fairfield County

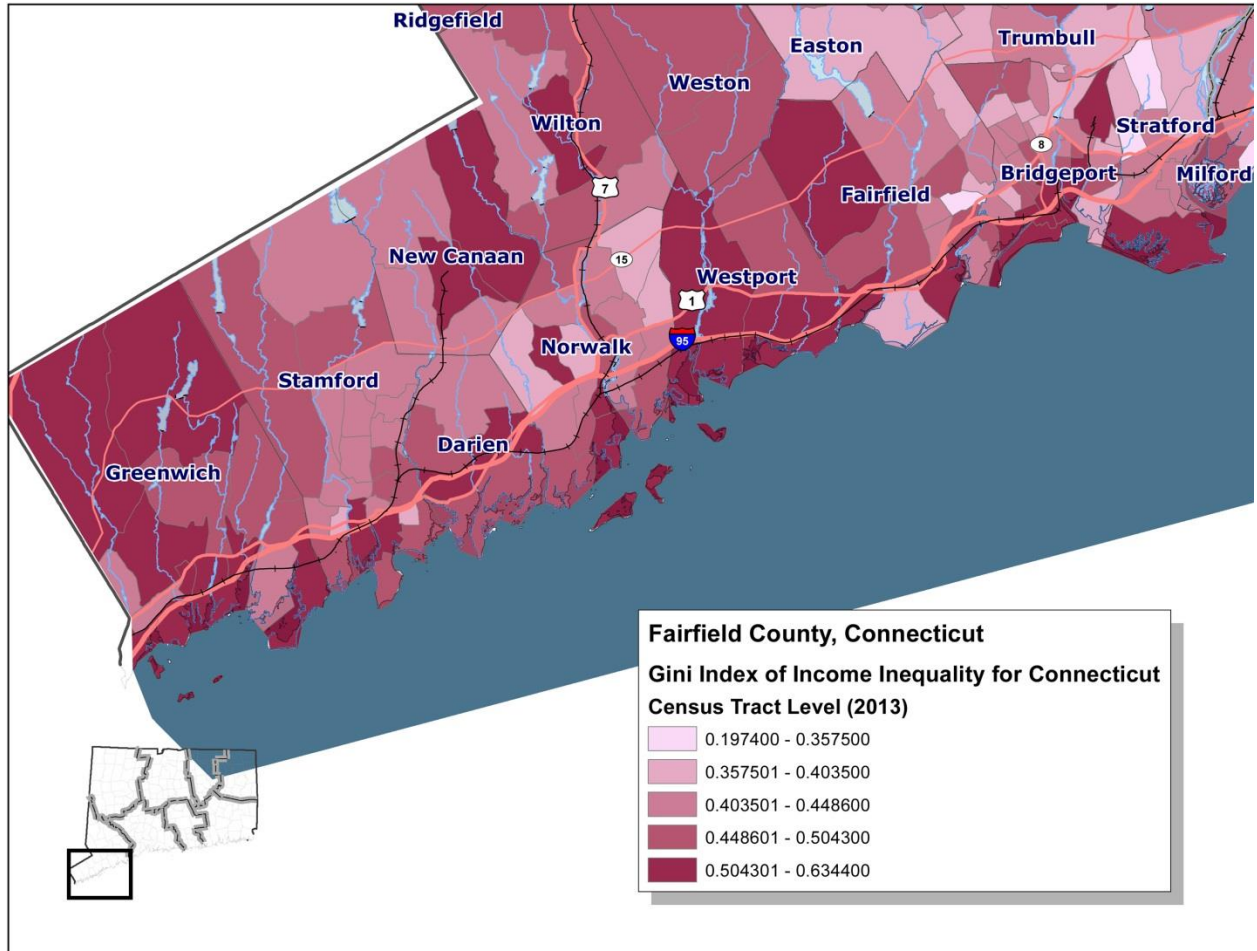


Figure 64: Gini coefficient (a measure of inequality) in New Haven County

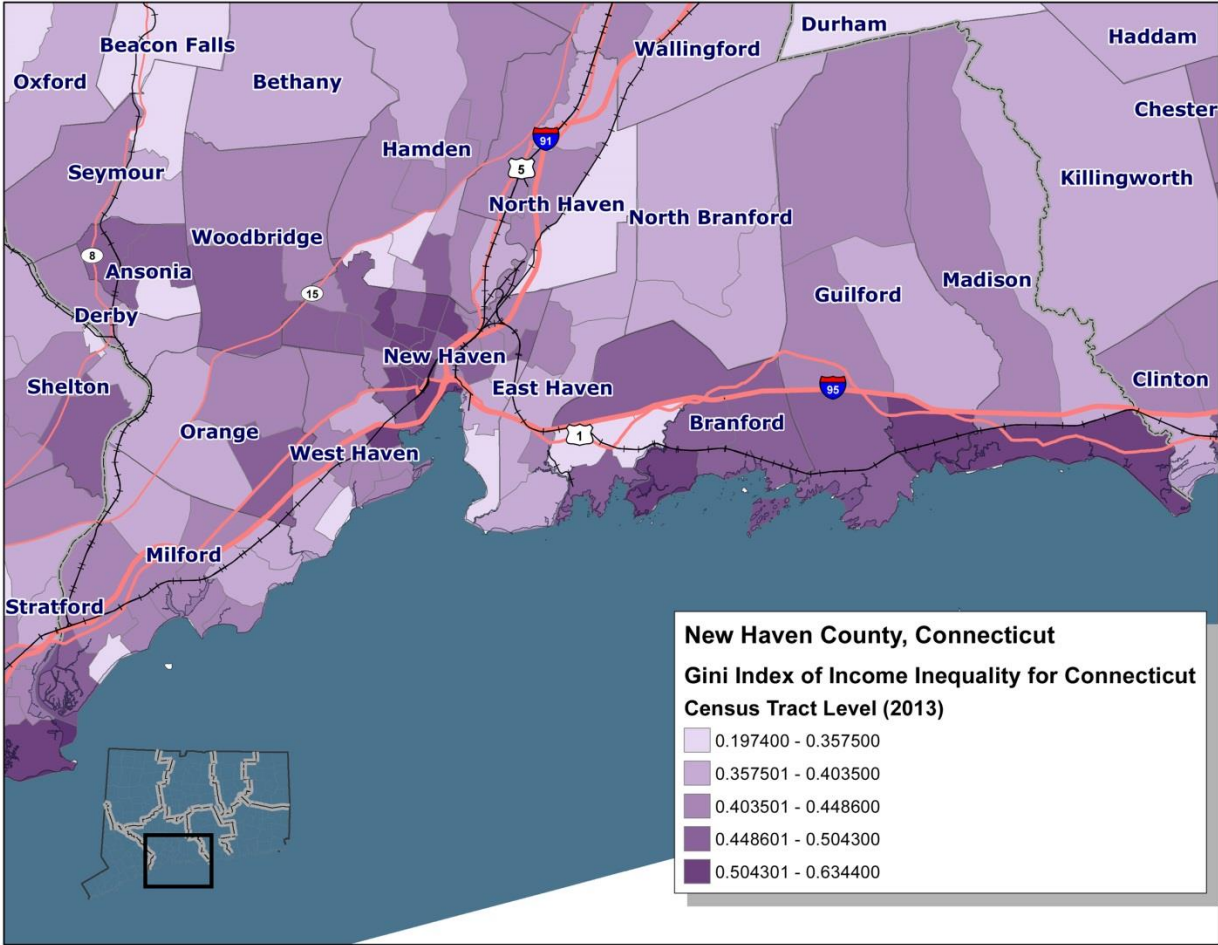


Figure C-1: Connecticut's distributed flood zones and vulnerable assets

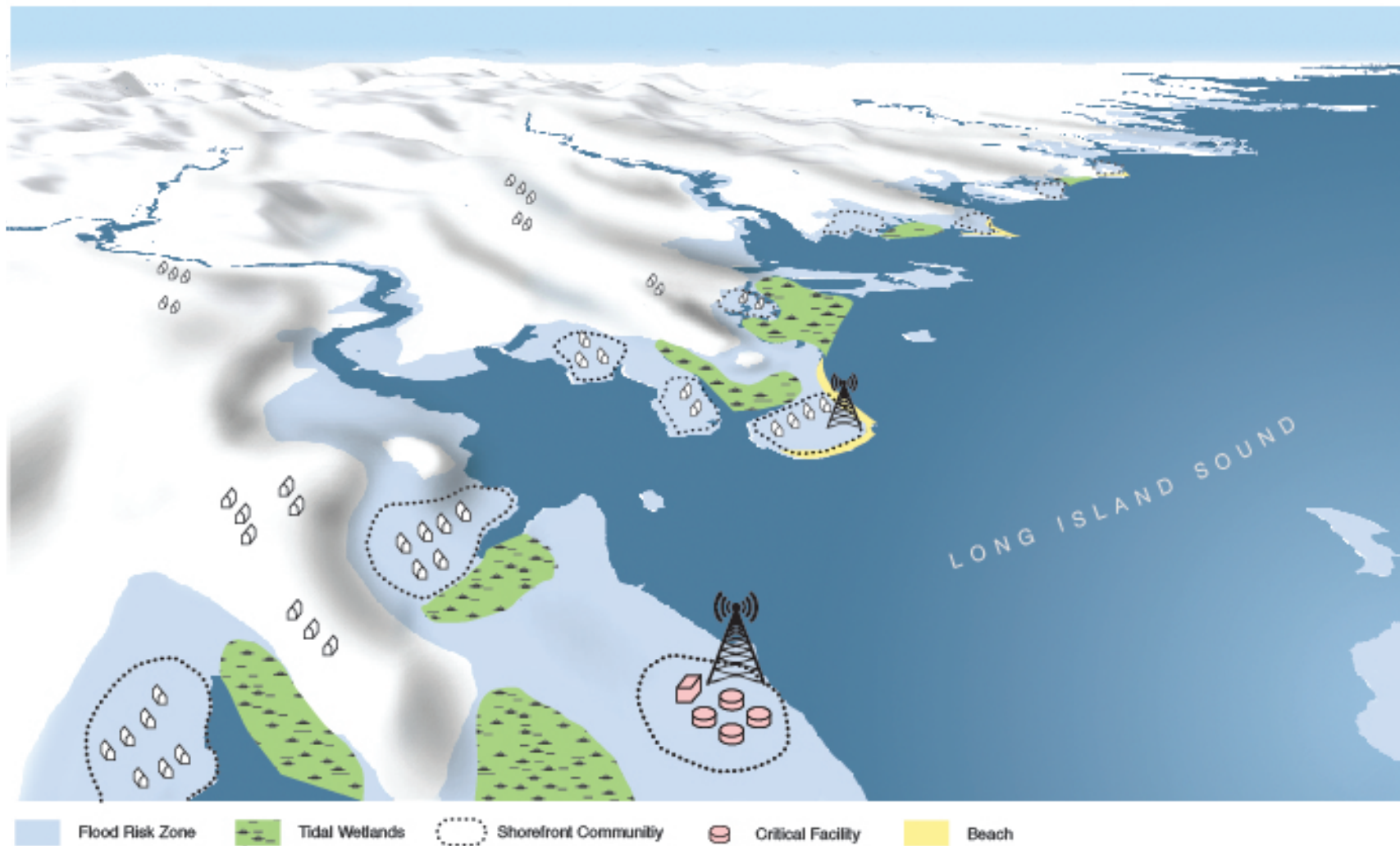


Figure C-2: Connecticut's ridgelines and resilience corridors

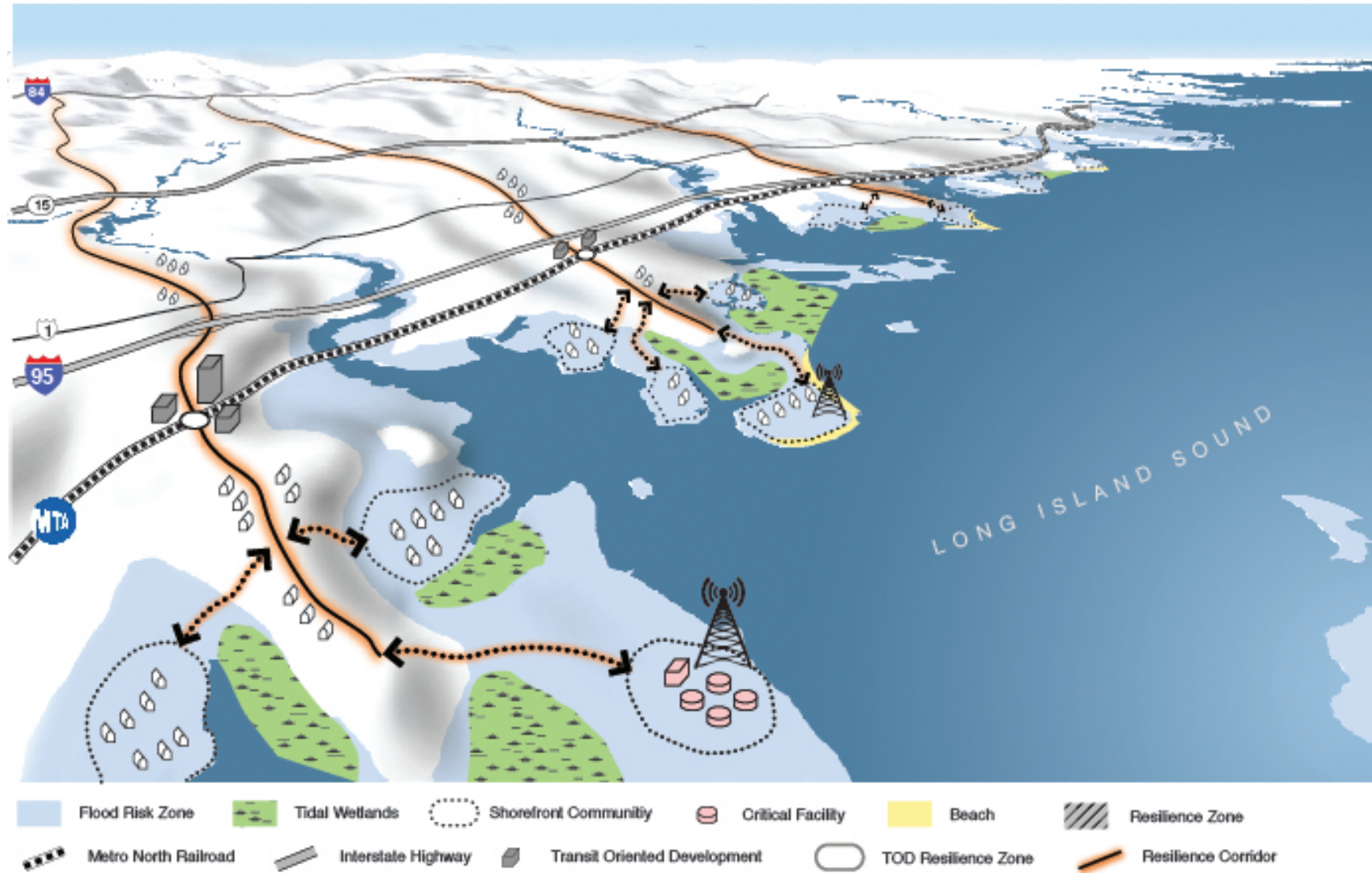


Figure C-3: Connecticut's regional transportation corridor and resilience zones

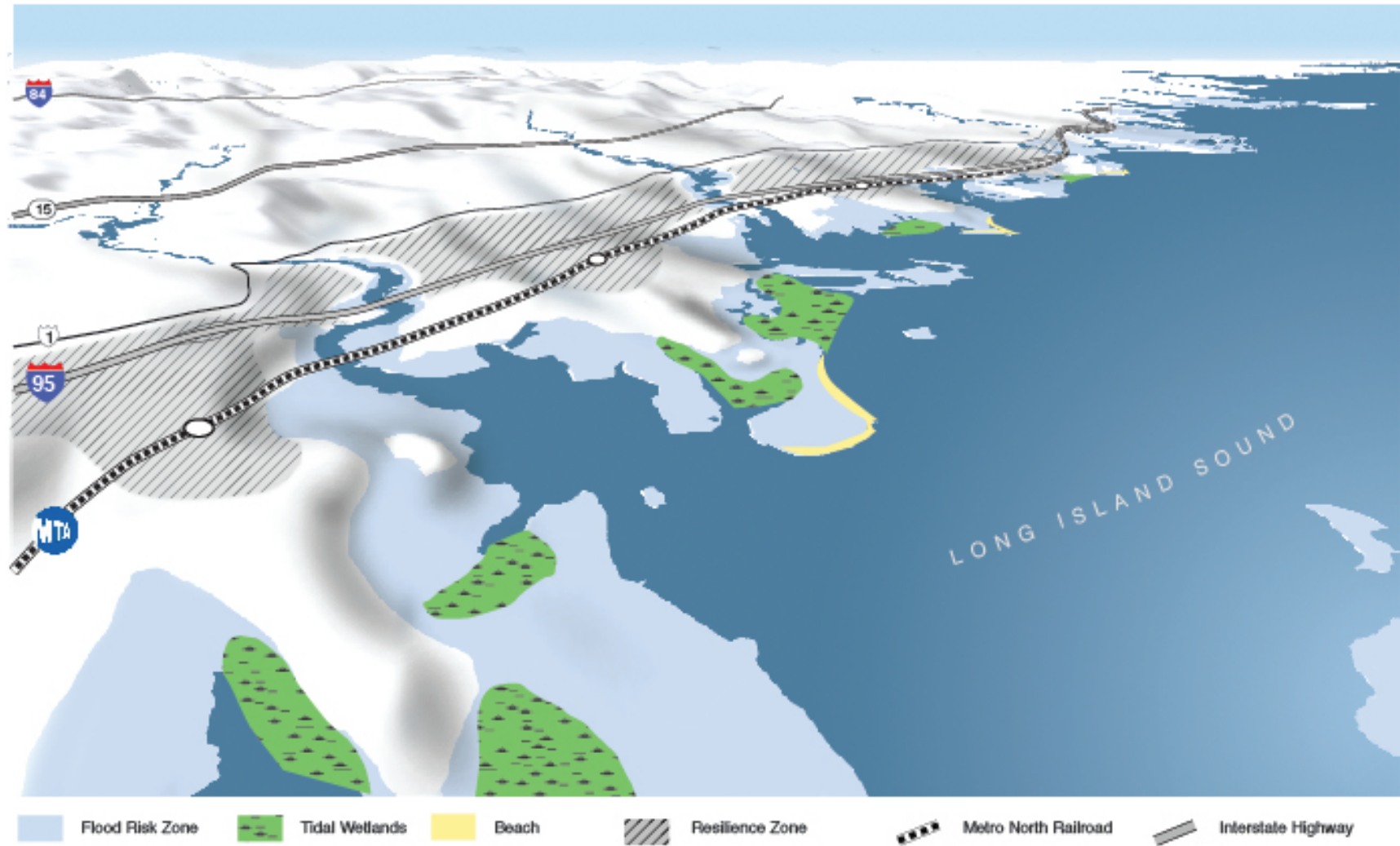


Figure 4: Transit-oriented development opportunities within resilience zones

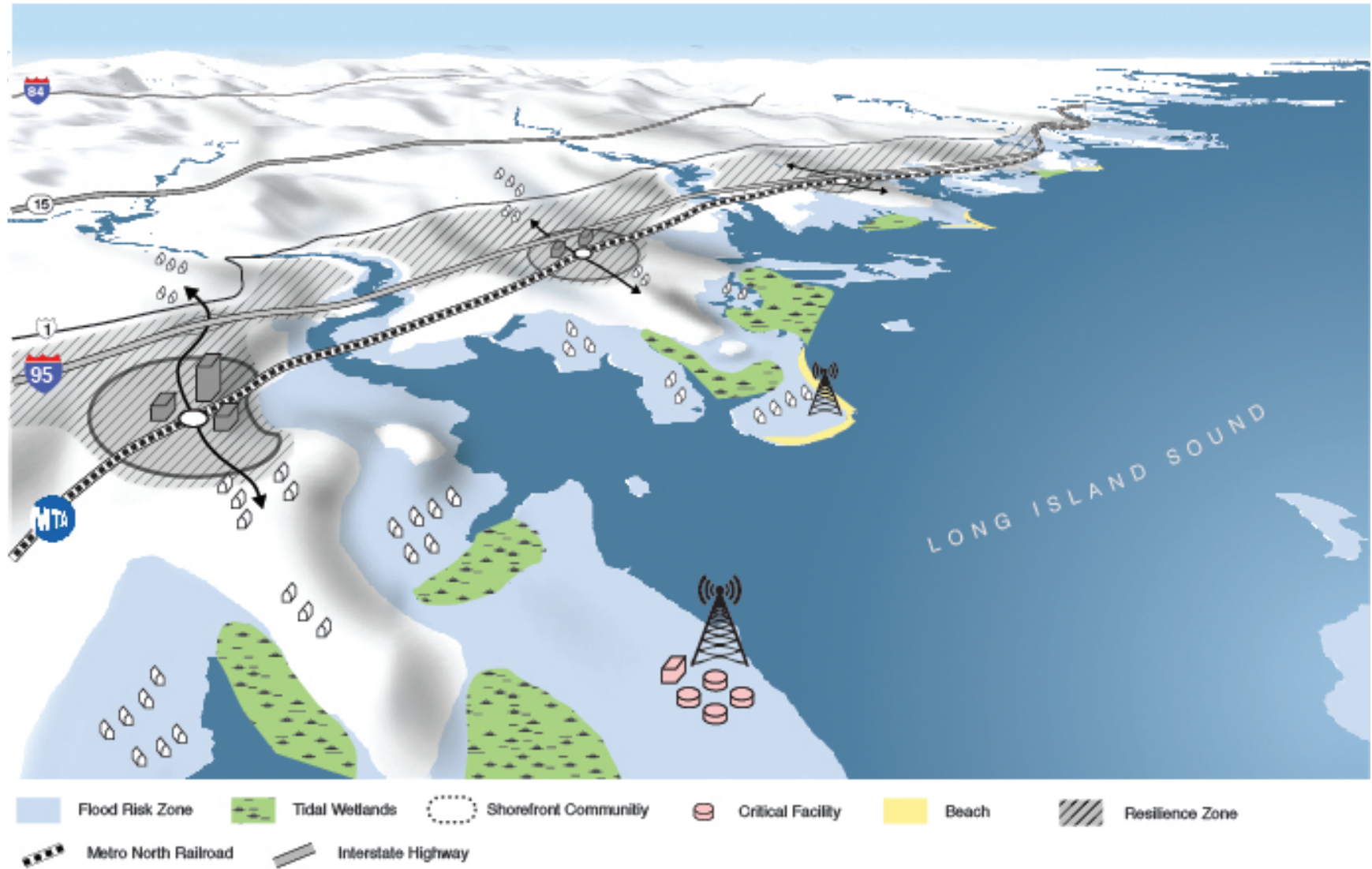


Figure C-5: Vision for Connecticut's resilient coastal communities

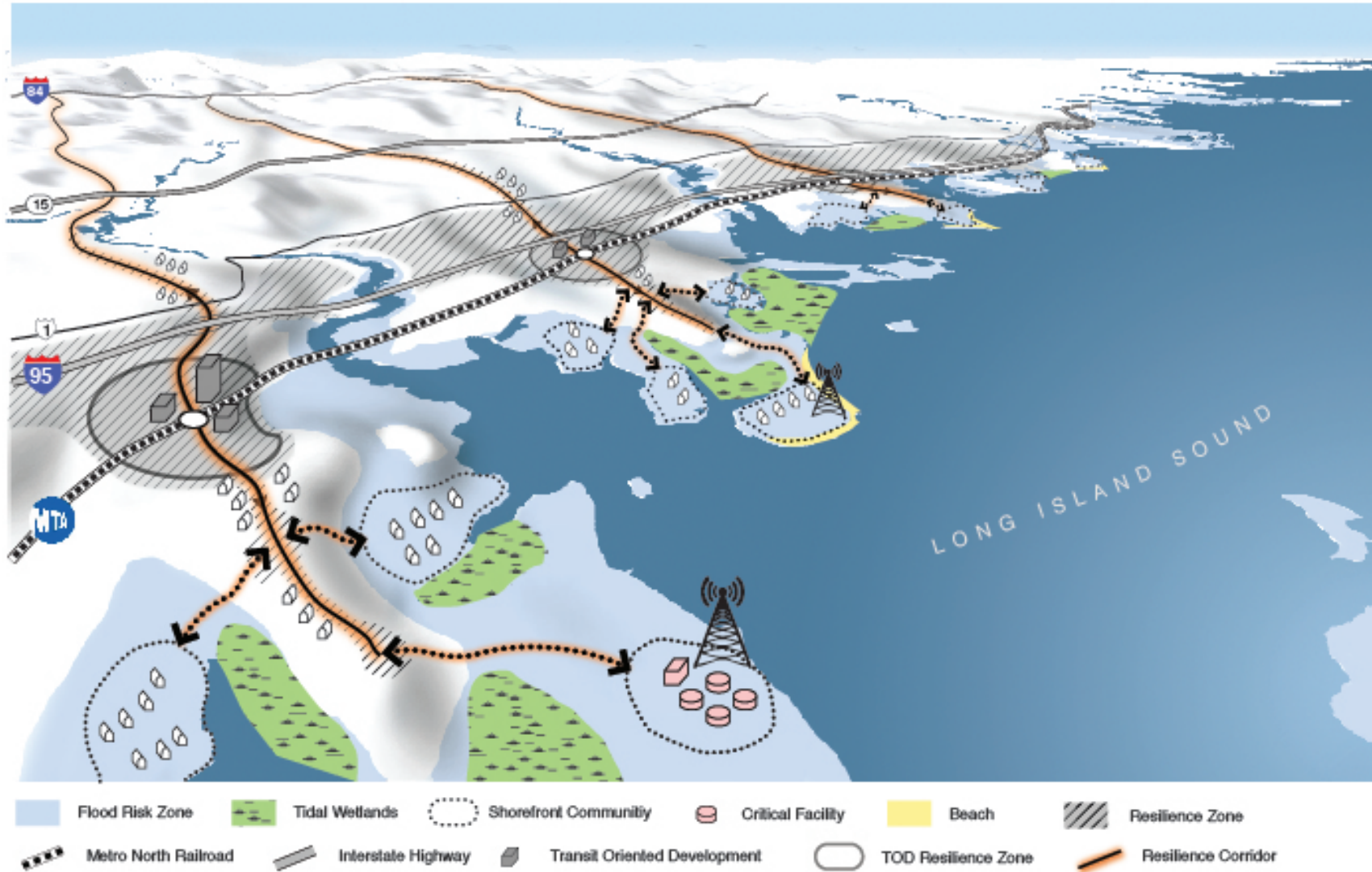


Figure C-6: Opportunities for resilience and redevelopment within resilience zones

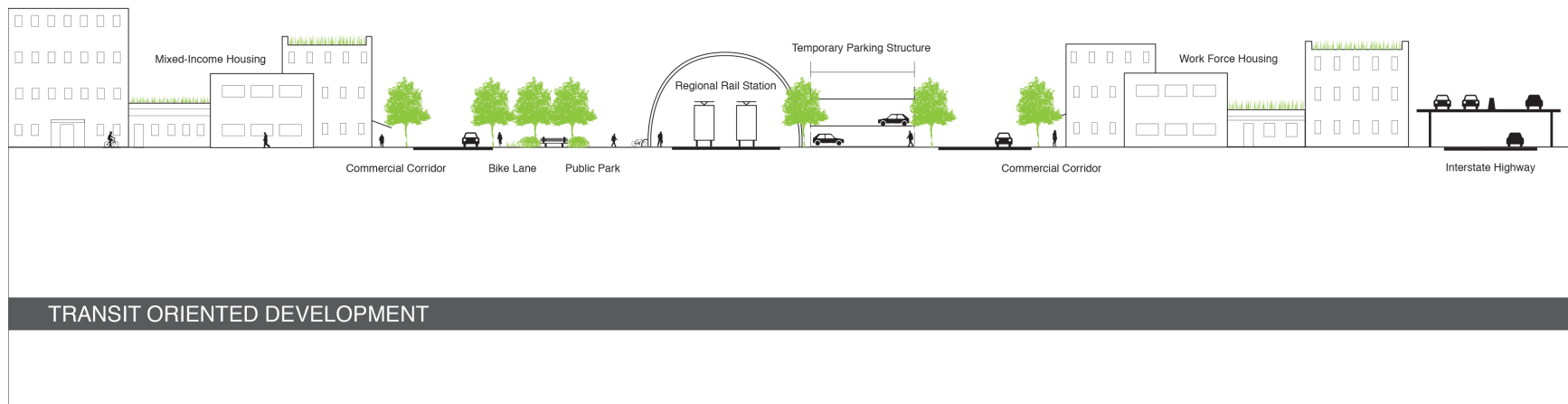


Figure C-7: Opportunities for resilience investments in Anytown, Connecticut



Figure C-8: Areas with high rates of poverty serviced by rail (Source: CT Department of Transportation)

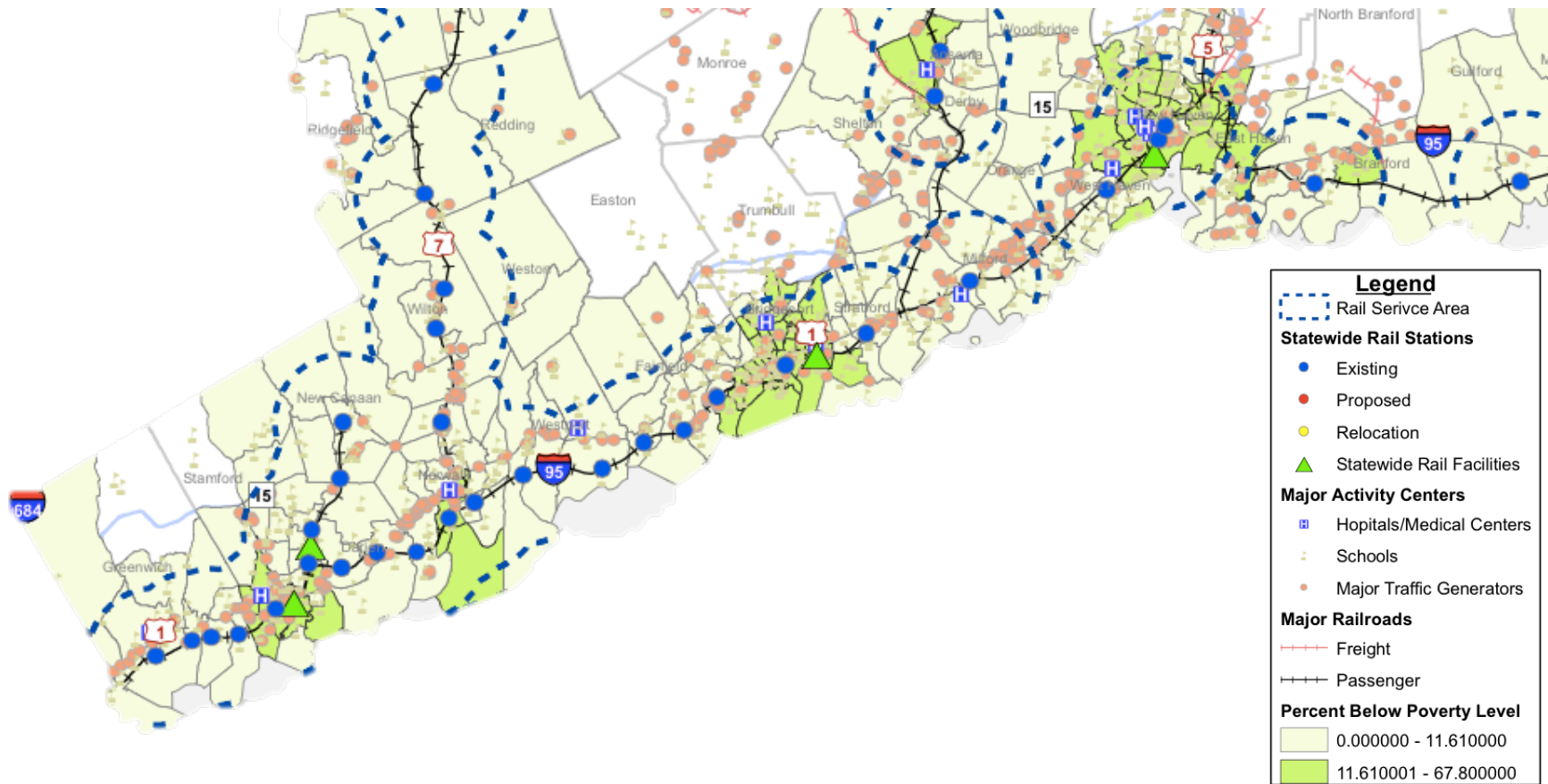
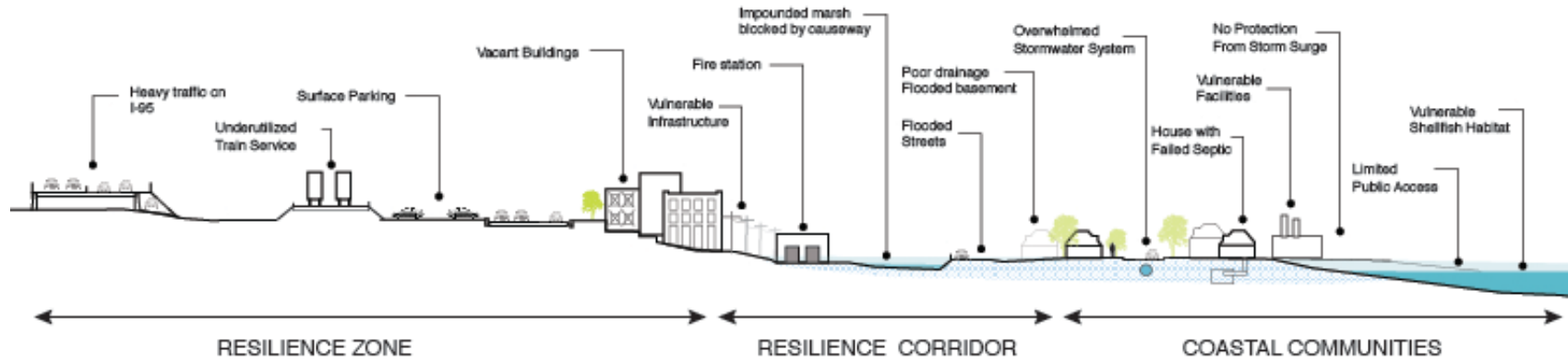


Figure C-9: Long-term transitions within vulnerable communities

CURRENT



LONG-TERM

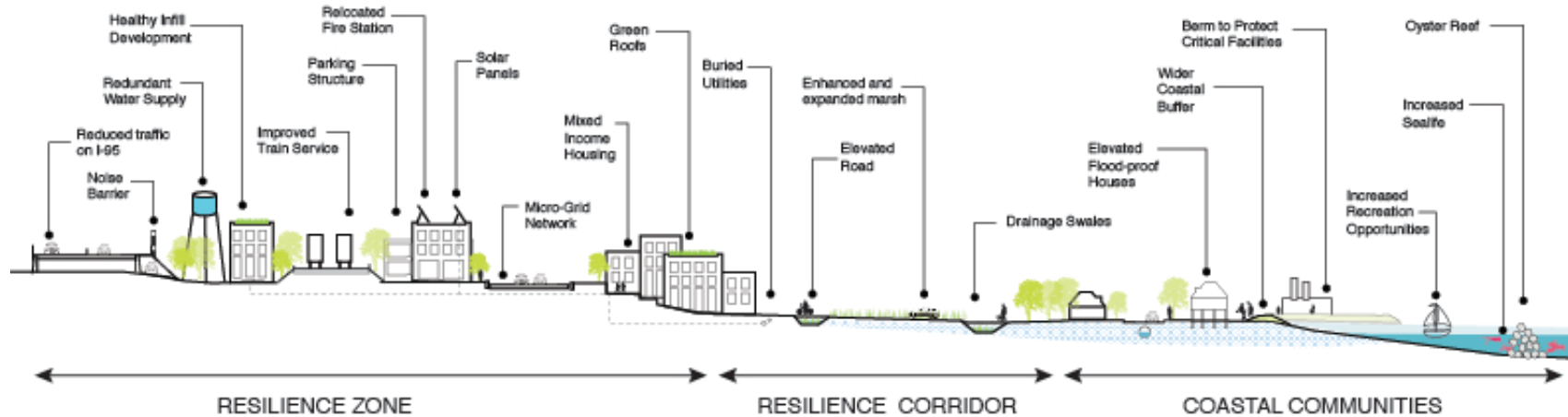
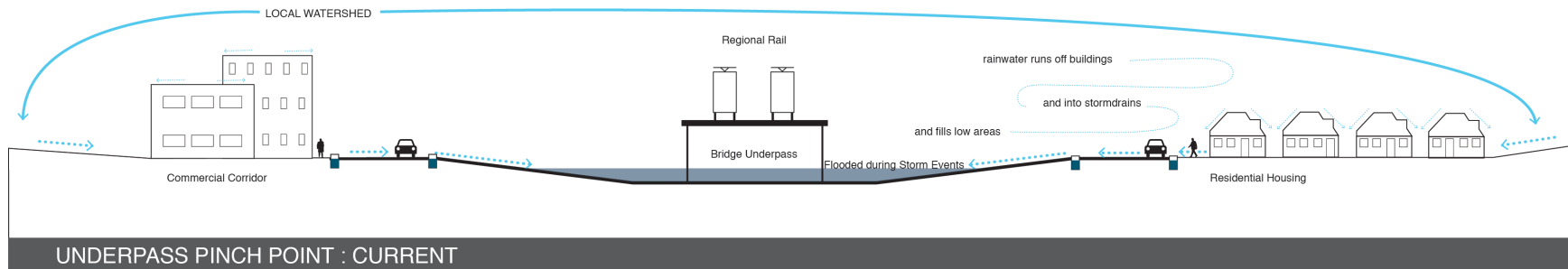
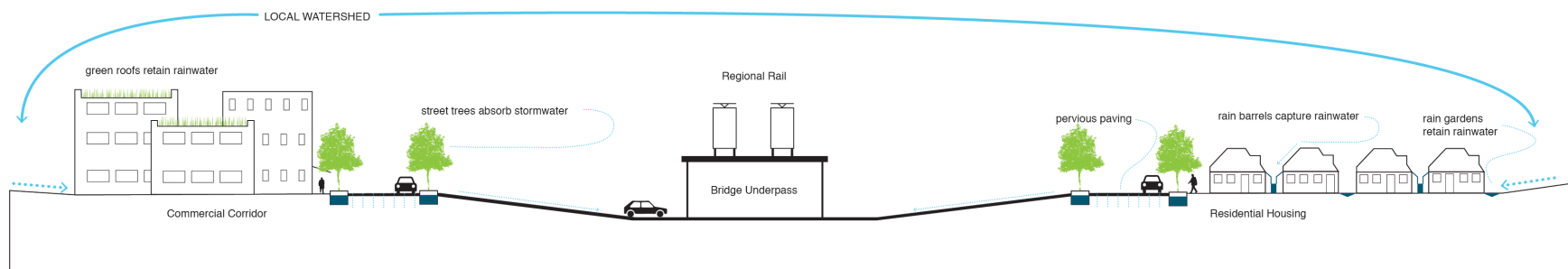


Figure C-10: Addressing transportation pinch points with green infrastructure and stormwater management



Impervious Surface Increases Stormwater Quantity and Speed



Green Infrastructure Strategies to Reduce Stormwater

Figure C-11: Opportunities to protect and connect coastal assets

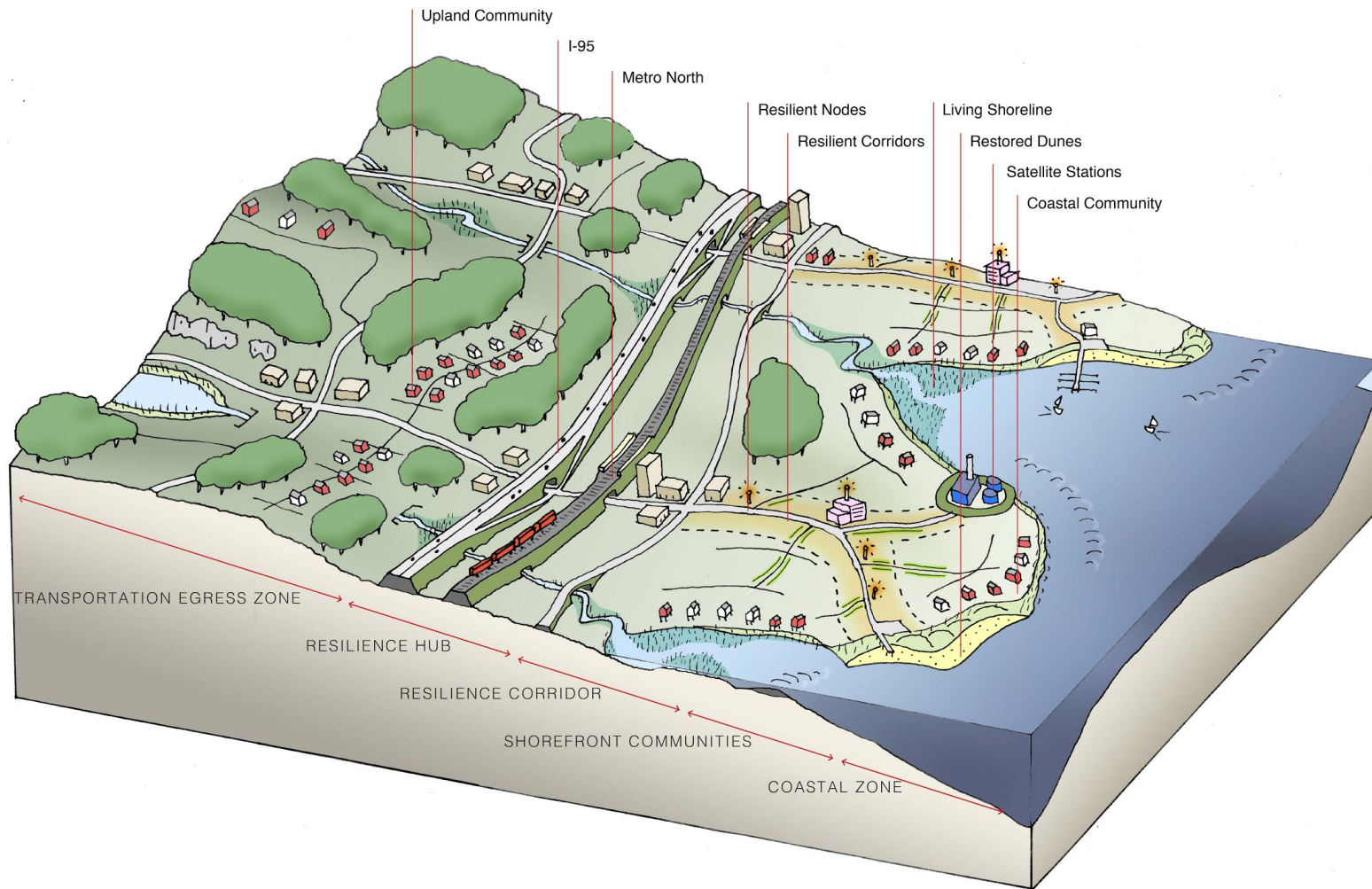


Figure C-12: Protecting and adapting coastal communities

