

**OFFICE OF ADJUDICATIONS**

**IN THE MATTER OF** : **APPLICATION NO. DS-04-18**

**CITY OF HARTFORD** : **SEPTEMBER 30, 2005**

**PROPOSED FINAL DECISION**

The City of Hartford has filed an application with the DEP for an inland wetlands and watercourses permit to conduct regulated activities in the Hartford Dike system. General Statutes §22a-403. Review of the application was guided by the provisions of §22a-403 (b), incorporating the factors outlined in General Statutes §22a-41. The parties have submitted an attached *Agreed Draft Decision* for my consideration. As more thoroughly described therein, these regulated activities are associated with repair and maintenance of the dike system, which is along the Connecticut River bank, primarily in Hartford and Wethersfield.

A public hearing was held on September 21, 2005.<sup>1</sup> I have reviewed and considered all exhibits and testimony submitted by the parties. I have also reviewed the *Agreed Draft Decision* and find that this *Decision* contains the relevant factors on which I must base my decision. I therefore make the following conclusions.

The environmental impact of this regulated activity would not result in significant loss or have an adverse impact on wetlands. General Statutes §22a-41(1).

There are no feasible and prudent alternatives to the present proposed plan for the project. The alternative of taking no action, or the “no build alternative,” would not meet the goal of the project and obligation of the applicant to repair major erosion areas within the watershed. The proposed plan is a feasible and prudent choice. General Statutes §22a-41(2).

The short-term impacts of this activity would be tempered by construction mitigation efforts and the long-term impacts would be kept to a minimum. The project would stabilize existing eroded stream banks, reducing the potential for major amounts of sediments to move downstream, as well as enhance the overall long-term productivity of the wetlands. General Statutes §22a-41(3).

The project keeps to a minimum the irreversible loss of wetlands resources. Further, the activity would not foreclose a future ability to protect, enhance or restore such

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<sup>1</sup> All statutory notice requirements were satisfied. §22a-403.

resources and the mitigation measures which may be considered as a condition of issuing a permit for such activity including, but not limited to, measures to prevent or minimize pollution or other environmental damage, maintain or enhance existing environmental quality, or restore, enhance and create productive wetland or watercourse resources. General Statutes §22a-41(4).

The character and degree of injury to, or interference with safety, health or the reasonable use of property, which is caused or threatened by the repair of the dike system, would be minimal. General Statutes §22a-41 (5).

The proposed regulated activity would not adversely impact wetlands or watercourses outside the area for which the activity would take place. Also, future activities associated with or reasonably related to the proposed repair and maintenance of the dike system, would not adversely impact wetlands or watercourses. General Statutes §22a-41 (6).

Therefore, by my signature, I adopt the *Agreed Draft Decision* as my *Proposed Final Decision* and recommend that the Commissioner issue the draft permit appended hereto as Attachment A.

September 30, 2005  
Date

/s/ James Malcolm  
James Malcolm, Hearing Officer

**STATE OF CONNECTICUT  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF ADJUDICATIONS**

*IN THE MATTER OF* : *DAM CONSTRUCTION PERMIT*  
: *APPLICATION NO. DS-04-18*

*CITY OF HARTFORD* : *SEPTEMBER 21, 2005*

**AGREED DRAFT DECISION**

**A. FINDING OF FACTS**

Taking into consideration and giving due regard to all the substantial evidence in the record, I make the following findings of fact.

**1. The Application**

- a. The City of Hartford, Department of Public Works (the "Applicant") submitted an application dated September 2004 entitled "Individual Permit for Dam Construction and 401 Water Quality Certification, Hartford Dike Maintenance and Repair Project" (the "permit application") pursuant to Connecticut General Statutes (C.G.S.) §22a-401 to §22a-411. ("Dam Construction permit") and 33 U.S.C. § 1341 ("401 Water Quality Certification") (Exhibit APP-1) to the Connecticut Department of Environmental Protection ("CTDEP") on September 24, 2004.
- b. The permit application consists of Exhibit APP-1 as supplemented by the Applicant's other exhibits ("Ex") and the testimony ("Test.") provided at the public hearing held on September 21, 2005. Ex. APP-1 consists of a complete application entitled "Permit Application for Programs Administered by the Inland Water Resources Division" (DEP-IWRD-APP-100) (the "Application Form") and Attachments A through Q (excluding those attachments that are not required for the Dam Construction permit or 401 Water Quality Certification). Attachment A consists of the forms "Attachment A-1: Technical Documentation, 401 Water Quality Certification" and Attachment A-3: Technical Documentation, Dam Construction Permit," which, as their titles suggest, provide technical information regarding the proposed maintenance and repair of the Applicant's existing Flood Control System. The remaining attachments included in the permit application are required in Part V of the Application Form. These remaining attachments provide detailed supplemental information to support the technical information provided in Attachment A (Ex. APP-1).
- c. In addition to the permit application, the Applicant has also submitted to the U.S. Army Corp of Engineers ("USACOE") an Application for the Department of Army

Permit, Clean Water Act Section 404 (the "Section 404 Permit"). An application for a Section 404 Permit was submitted because the Applicant anticipates filling more than 5,000 square feet of federally regulated wetlands (Ex. APP-1, Attachment Q).

## 2. The Parties

The following are parties to the permit application:

- a. The City of Hartford, Department of Public Works (the "Applicant") 525 Main Street, Hartford, Connecticut represented by John. H. McGrane, P.E., Assistant Director of Public Works/City Engineer). Engineer and consultant to the City of Hartford is Fuss & O'Neill, Inc. (the "Consultant"), 146 Hartford Road, Manchester, Connecticut represented by Craig M. Lapinski, P.E. Project Manager; Philip W. Moreschi, P.E.; Vice President, and Joshua H. Wilson, Biologist.
- b. The Connecticut Department of Environmental Protection (CTDEP), 79 Elm Street, Hartford, Connecticut represented by Staff.
- c. On September 14, 2005 Mr. Leigh H. Standish, a member of Wethersfield Involves Neighbors Association, applied as intervener pursuant to C.G.S. §22a-19(a) (Ref???) Intervener status was granted Mr. Standish on September 16, 2005 without opposition from the Applicant or the CTDEP (Ref???) *LS JHM*

## 3. The Project

### a. Site

The Applicant is undertaking a program to repair and improve their Flood Control System (the "project"). The Flood Control System was constructed (in several phases) by the USACOE from 1938 to 1981 to provide protection for approximately 3,000 acres of developed area against flooding from the Connecticut River. The main components of the system include 34,000 feet of earthen dikes and 4,400 feet of concrete floodwalls (collectively the "Hartford Dike"), six pumping stations, two drainage basins, three pressure conduits, and an auxiliary conduit. The Hartford Dike is subdivided into the following dike sections: the North Meadows Dike Section (earthen embankment north of the Bulkeley Bridge); the South Meadows Dike Section a/k/a the "Clark Dike" (earthen embankment south of Maxim Road), the Riverfront Dike Section (alternating earthen embankment and concrete floodwall sections between Maxim Road and the Bulkeley Bridge); and the Folly Brook Dike Section (small earthen embankment west of Wethersfield Avenue). The earthen embankments have a core of free draining river sand. Over this sand on the riverside, is a thick layer of dense impervious earth that extends down to a steel sheet pile cutoff wall to prevent water from seeping through the dike. At the landside toe of the dike is an underdrain to control any seepage that does occur. Both sides of the dike are covered with vegetated topsoil to prevent erosion. Also, riprap is installed

on the lower two-thirds of the North Meadows and Riverfront dike sections to prevent scour from the Connecticut River (Ex. APP-1).

b. Background

- (1) The overall purpose of the project is to address several maintenance deficiencies and restore the Hartford Dike such that it is in compliance with the guidance document entitled "Engineering and Design Guidelines for Landscape Plantings and Vegetation Management at Floodwalls, Levees and Embankment Dams – Manual No. 1110-2-301," dated January 1, 2000 and prepared by the USACOE (Ex. APP-1: Attachment Q) ("USACOE maintenance guidelines").
- (2) In 2002, the Applicant commissioned a design study report of the Hartford Dike system entitled "Field Evaluation of Connecticut River Dike System and North and South Meadows Pumping Stations" and completed by Purcell Associates. The report presents an engineering evaluation of the dike based on several criteria: settlement and stability; seepage; drainage; slope protection; accessibility; debris and siltation; and vandalism, trespass, or public encroachment. The report also presents specific recommendations to the City for addressing the observed deficiencies (Ex. APP-1).
- (3) The following conditions, as cited by Purcell Associates and observed by the Applicant and the Consultant, have developed on the dike that require maintenance. In certain areas of the dike, trees and brush have taken root and are growing near the toe or on the earthen embankment. Open channel ditches designed to convey water away from the landside of the dike during flood conditions have become silted in and vegetated since their original construction. Nuisance wildlife has excavated burrows on the dike surface. All of these conditions pose a potential risk to the integrity of the dike system and ultimately the persons and property located within the 3,000 acres of developed area the Hartford Dike was designed to protect (Exs. APP-1, Attachment H; APP-3; Test. Lapinski, 9/21/05).

c. Proposed Activity

This project, as presented in the application, will address repairs and maintenance needed on the earthen dikes, concrete floodwalls and their associated structures (Ex. APP-1). Maintenance and repair activities will be conducted in compliance with USACOE maintenance guidelines (Ex. APP-1, Attachment Q). The following are specific maintenance and repair activities of the Hartford Dike to address historical deficiencies in the maintenance (Ex. APP-1, Attachment H) and prevent future lapses in maintenance:

- (1) Along the entire length of the North Meadows Dike and the Clark Dike, the Applicant proposes the clearing of approximately 46 acres of trees, brush, and

in some sections, root systems from 15 feet riverward of the riverside toe to 15 feet landward of the landside drainage ditches in accordance with USACOE maintenance guidelines (Ex. APP-1, Attachment Q).

- (2) At the North Meadows Dike from Station 55+00 to Station 159+50 and at the Clark Dike from Station 50+00 to Riverfront Dike Station 91+50 the Applicant proposes the grading and construction of approximately 295,600 square feet of gravel maintenance access road for the purpose of providing access for inspection, operation, maintenance and repair of the Hartford Dike (Ex. APP-1, Attachment O, Sheets C-1.03 (rev. 9/19/05), C-1.04 to C-1.06, and C-1.12 to C-1.16). Gravel will be used because of its favorable long term compaction and stability properties (Test. Lapinski, 9/21/05).
- (3) In his memo dated April 5, 2005 to Mr. Brian Golembiewski, Environmental Analyst for CTDEP, Mr. Ted Rybak, Civil Engineer for CTDEP commented on the construction of the maintenance access road stating, "I recommend that the access road at the downslope toe be topsoiled and seeded," (Ex. DEP-4). At the Clark Dike from Station 10+00 to Station 20+00 and Station 26+00 to Station 50+00, the Applicant proposes the grading and construction of a 54,400 square feet of maintenance access road consisting of a gravel subbase overlain by two inches of vegetated topsoil. On these sections of the maintenance access road, topsoil will be seeded immediately after construction (Ex. APP-1, Attachment O, Sheets C-1.01 to C-1.03 (rev. 9/19/05)). To ensure that successful establishment of seed is achieved, performance specifications have been included in the notes of the vegetated gravel access road detail (Ex. APP-1, Attachment O, Sheet C-5.01 (rev. 9/19/05)).
- (4) The existing Clark Dike maintenance access road will be gated at each terminus and at Brainard Road. An existing gate is located at the northern limit of the Clark Dike at the terminus of Maxim Road and will remain in place. An existing gate is located 850 feet north of Station 26+00 of the Clark Dike at the terminus of Brainard Road and will remain in place. An additional gate will be installed east of the South Meadows Pumping Station at Station 8+30 immediately prior to the Route 5/Route 15 underpass (Ex. APP-1, Attachment O, Sheets C-1.01, C-1.02 and C-5.02 (rev. 9/19/05), and Sheet C-1.05).
- (5) The existing North Meadows maintenance access road is gated at three (3) locations. Existing gates are located at the access point off of Riverside Park Road (Station 40+00); at the southern limit of the North Meadows Dike east of the North Meadows Pumping Station (Station 55+50); and at the northern limit of the North Meadows Dike near the terminus of Weston Road (Station 155+50). The existing gates will remain in place. (Ex. APP-1, Attachment O, Sheets C-1.11, C-1.12, and C-1.16).
- (6) At the North Meadows Dike and the Clark Dike, the Applicant understands that the proposed access road is provided for the purpose of maintenance, operation,

inspection and repair of the Flood Control System and, specifically, the Hartford Dike. The Applicant also understands that the access road is not provided for the purpose of public access or recreation. Fundamentally, control structures (e.g. gates) have been and will be installed to restrict said public access and recreation (Test. Lapinski, 9/21/05).

- (7) At the North Meadows Dike from Station 97+50 to Station 133+00, at the Clark Dike from Station 31+25 to Station 117+50, and at the Riverfront Dike at Station 68+40 ruts formed on the crest of the dike will be repaired (Ex. APP-1, Attachment O, Sheets C-1.02 and C-1.03(rev. 9/19/05), C-1.04, C-1.05, C-1.07, C-1.14, and C-1.15).
- (8) At the Clark Dike the Applicant proposes re-grading the riverside embankment to its original design geometry along approximately 1.4 miles of earthen dike from Station 45+00 to Station 116+00 to create a uniform surface for future mowing (Ex. APP-1, Attachment O, Sheets C-1.03 (rev. 9/19/05), C-1.04, and C-1.05).
- (9) Along the landward side of the North Meadows Dike and Clark Dike, the Applicant proposes to restore the existing drainage ditches by removing accumulated sediment and restoring proper drainage. Approximately 10,300 linear feet of open channel drainage ditches will be restored to provide adequate control flood water which may seep into the earthen embankments. (Ex. APP-1, Attachment O, Sheets C-1.01 to C-1.03 (rev. 9/19/05), C-1.04, C-1.11 to C-1.16).
- (10) Along the landward side of the North Meadows Dike and Clark Dike, the Applicant proposes to clean and repair minor drainage structures such as toe drain manholes and lateral drain pipes to provide adequate control of flood water which may seep into the earthen embankments. (Ex. APP-1, Attachment O, Sheets C-1.01 to C-1.03 (rev. 9/19/05), C-1.05 to C-1.07, and C-1.11 to C-1.16).
- (11) At multiple locations along the length of the Hartford Dike, the Applicant proposes to provide nuisance animal control services and repair of burrows dug by these animals into the earthen embankments (Ex. APP-1, Attachment O, Sheets C-1.01 to C-1.03 (rev. 9/19/05), C-1.05 to C-1.07, and C-1.11 to C-1.16).
- (12) Along the riverward side of the North Meadows Dike, the Clark Dike, and the Riverfront Dike, the Applicant proposes approximately 32,000 square feet of riprap repair and approximately 300 square feet of the concrete floodwall repair (Ex. APP-1, Attachment O, Sheets C-1.05 to C-1.16).
- (13) In his memo dated April 5, 2005 Mr. Rybak recommended the following to Mr. Golembiewski,: '1) All disturbed areas along the access road and on the

dike are to be seeded and stabilized...2) Provide definition for unsuitable material. 3) Provide use or reuse of unsuitables for topsoil etc if tested ok for topsoil use...[and]...technical specifications for this project,” (Ex. DEP-4). Regarding Mr. Rybak’s first comment, for the entire Hartford Dike best management practices of sediment and erosion control measures will be implemented throughout construction. All erosion and sediment control measures will be constructed and implemented in accordance with standards and specifications of the “2002 Connecticut Guidelines for Soil Erosion and Sediment Control” published by the Connecticut Council on Soil and Water Conservation, dated 2002 (Ex. APP-1, Attachment O, Sheet C-5.06 (rev. 9/19/05)). Regarding Mr. Rybak’s second and third comments, all excavated materials will be managed in accordance with CTDEP guidance. These specifications as well as specific design specification will be developed as part of the contract award process. Proposed design details have been provided as part of Ex. APP-1 (Ex. APP-1, Attachment O, Sheets C3.01 to C3.02, C-5.01 to C-5.06 (rev. 9/19/05); Test. Lapinski, 9/21/05).

d. Environmental Assessment and Impacts

(1) Wetlands and Watercourses

- (a) Wetlands and watercourses were identified in accordance with the Connecticut Inland Wetlands and Watercourse Act (C.G.S. §22a-36 to §22a-45). For the purposes of delineation all soils located riverward of the Hartford Dike are located in the Connecticut River floodplain and are classified as wetlands. The soils on the riverward side of the dike include the following alluvial soil types: well drained Occum fine sandy loam and Hadley silt loam, moderately well drained Winooski silt loam, and poorly drained Limerick and Lim soils. Landward of the Hartford Dike, wetlands and watercourses are limited to man-made drainage ditches. The wetland soils landward of the dike consist of man-made Aquents. (Exs. APP-1, Attachment F; DEP-5).
- (b) An evaluation of the regulated wetlands was performed in accordance with the USACOE New England Division guidance document entitled “The Highway Methodology Workbook Supplement, Wetlands Functions and Values: A Descriptive Approach” dated September 1999. The Connecticut River floodplain in the project area generally provides the following principal wetland functions and values: Groundwater Recharge/Discharge; Floodflow Alteration; Sediment/Toxicant/Pathogen Retention; Nutrient Removal/Retention/Transformation; Sediment/Shoreline Stabilization; Wildlife Habitat; Production Export; Recreation; Visual Quality/Aesthetics; Uniqueness Heritage; and Threatened or Endangered Species Habitat. The degree to which these functions and values are exhibited is depended upon the width of the floodplain, the



level of existing human disturbance or modification, and the native versus non-native vegetation communities that are present. The wetland areas located landward of the Hartford Dike offer the limited functions and values of Groundwater Recharge/Discharge and Wildlife Habitat (Exs. APP-1, Attachment I; DEP-5).

- (c) The proposed access road on the riverside toe-of-dike will result in permanent impacts to approximately 8.8 acres of inland wetlands. Over this area, existing alluvial and floodplain soils will be cleared of vegetation and then re-graded, compacted, and overlain with gravel, or gravel overlain by vegetated topsoil (Ex. APP-1).
  - (d) Permanent impacts to 10,300 linear feet of the wetlands and watercourses identified on the landside of the dike are also proposed. In these areas, removal of accumulated sediment and vegetation will restore the ditches to their original design configuration (Ex. APP-1).
- (2) State Listed Threatened, Endangered, or Species of Special Concern.
- (a) In accordance with C.G.S. §26-310 the Applicant submitted a National Diversity Database Review Request Form (DEP-APP-007) to the CTDEP Environmental Geographic Information Center (EGIC) (Ex. APP-1, Attachment I). The request was submitted on June 28, 2004 in regard to state listed threatened, endangered, or species of special concern. In their letter dated July 26, 2004, the CTDEP EGIC identified eight species that may potentially utilize the area adjacent to or associated with the Hartford Dike including: shortnose sturgeon (*Acipenser brevirostrum*), Atlantic sturgeon (*Acipenser oxyrinchus*), peregrine falcon (*Falco peregrinus*), grasshopper sparrow (*Ammodramus savannarum*), savannah sparrow (*Passerculus sandwichis*), midland clubtail dragonfly (*Gomphus fraternus*), red bat (*Lasiurus borealis*), and bald eagle (*Haliaeetus leucocephalus*) (Exs. APP-1, Attachment I and Attachment O, Sheet G-0.01 (rev. 9/19/05)).
  - (b) In her letter dated August 4, 2004, Ms. Julie Victoria, Wildlife Biologist for the CTDEP provided initial information regarding state listed threatened, endangered, or species of special concern, specifically the bald eagle, peregrine falcon, midland clubtail dragonfly, red bat, savannah sparrow and grasshopper sparrow. General recommendations of Ms. Victoria's letter included: leave standing old growth trees at or exceeding 12 inches diameter at breast height (dbh) near the waterside; avoid work along the river from December 31 to March 1; and minimize impact to open fields, meadows, marshes, and other grassy areas from May to August (Ex. APP-1, Attachment I, Appendix B). The Consultant addressed these general recommendation and the

potential impacts and measures by which any impact will be minimized (Ex. APP-1, Attachment I).

- (c) In his memorandum dated December 28, 2004 Mr. Brian Murphy, Senior Fisheries Biologist for CTDEP provided comment regarding the fisheries, in general, of the Connecticut River and the Atlantic and Shortnose sturgeon populations, specifically. Mr. Murphy stated “[c]learing of vegetation along the riverside of the [Hartford] dike will not likely significantly impact riparian corridor functions along the Connecticut River.” He further states, “[r]oad creation and removal of accumulated sediments from drainage ditches should not be activities of risk to the [Connecticut] [R]iver’s water quality as long as proper sediment control best management practices are utilized and maintained during construction.”(Ex. DEP-7).
- (d) In her letter dated February 17, 2005, Ms. Jenny Dickson, Wildlife Biologist for CTDEP provided comment specific to the red bat as a state listed species of special concern. Ms. Dickson specifically recommends, “[t]o lessen potential impacts to this species (as well as other tree-roosting bat species), aligning the road to avoid the cutting of large diameter [(12-inch DBH or greater)] is ideal. Any required tree removal should be conducted outside the time when females have young (approximately May 1 through July 31) (Ex. DEP-9). Mr. Lapinski (for the Applicant) responded to Ms. Dickson’s recommendations in his letter dated April 15, 2005 and addressed to Mr. Wesley Marsh, Supervising Environmental Analyst for CTDEP. Specifically, Mr. Lapinski’s letter stated, “..no trees greater than 12 inches in diameter will be removed between May1 and July 31 during the construction of the access road at the North Meadows Dike riverside of toe of slope”(Exs. APP-8; APP-1, Attachment O, Sheet G-0.01 (rev. 9/19/05)). In her memo dated June 12, 2005 to Mr. Marsh, Ms. Dickson provided additional comment to clarify inconsistencies between Mr. Lapinski’s letter of April 15, 2005 and her letter of February 17, 2005 (Ex. DEP-10). In its “Draft Section 401 Water Quality Certification and Dam Safety Permit,” dated September 12, 2005, the CTDEP specifies in the section entitled “Special Conditions,” Item 4 that “[b]etween May 1 and July 31 of each year, the permittee shall not remove any woody vegetation within the Connecticut River floodplain forest along the riverward toe of the North Meadows Dike from Station 00+00 to 160+00”(Ex. DEP-16).
- (e) In her letter dated March 24, 2005, Ms. Julia Victoria provided comments specific to the federally threatened and state endangered, bald eagle; the state endangered Peregrine falcon, and the state threatened middling clubtail dragonfly. With regard to the peregrine falcon, Ms. Victoria concludes, “..we do not anticipate any adverse

impact to this species.” Similarly, with regard to the midland clubtail dragonfly, Ms. Victoria concludes, “[i]t does not appear that the proposed activities will occur on the riverbank so we do not believe that there will be an impact.” Regarding the bald eagle Ms. Victoria states, “[i]t does not appear that the proposed activities will occur on the riverbank so we do not believe that there will be an impact. If the riverbank will be impacted, we recommend that all old growth trees at or exceeding 12” dbh should be left standing near the waterside. If the riverbank will be impacted, we recommend that you do not work along the river from December 31 to March 1. We also have concerns with increased human disturbance in this area with the attraction of the new gravel road...We urge MDC to restrict human access along this newly constructed dike road to minimize disturbance to wildlife”(APP-8). Mr. Lapinski responded to Ms Victoria’s recommendations of construction timing in his letter dated April 15, 2005 and addressed to Mr. Wesley Marsh, Supervising Environmental Analyst for CTDEP. Specifically, Mr. Lapinski’s letter stated, “...if road construction is to occur between December 31 and March 1 and will occur within 100 feet of the bank of the Connecticut River, the area will be surveyed for the presence of Bald Eagles or nests by a qualified biologist prior to construction. These conditions apply to an area located along the Clark Dike between stations 89+00 and 123+00” (Exs. APP-8; APP-1, Attachment O, Sheet G-0.01 (rev. 9/19/05)). In its “Draft Section 401 Water Quality Certification and Dam Safety Permit,” dated September 12, 2005, the CTDEP specifies in the section entitled “Special Conditions,” Item 3 that “[b]etween January 1 and March 1 of each year, the permittee shall not conduct any construction activities within 100 feet of the Connecticut River bank”(Ex. DEP-16). With respect to Ms. Victoria’s concerns regarding human access, at the North Meadows Dike and the Clark Dike, the Applicant understands that the proposed access road is provided for the purpose of maintenance, operation, inspection and repair of the Flood Control System and, specifically, the Hartford Dike. The Applicant also understands that the access road is not provided for the purpose of public access or recreation. Fundamentally, control structures (e.g. gates) have been and will be installed to restrict said public access and recreation. (Test. Lapinski, 9/21/05).

### (3) Other Impacts

As a result of the construction activities including animal control services and repair of burrows dug by these animals into the earthen embankments, existing wildlife species will be displaced and/or relocated. (Ex. APP-1, Attachment A; DEP-5). As with any construction project there is the potential for erosion of disturbed soil and resultant sedimentation of wetlands and watercourses (Ex. DEP-5). The Applicant has provided best management practices of sediment

and erosion control measures in accordance with standards and specifications of the "2002 Connecticut Guidelines for Soil Erosion and Sediment Control" published by the Connecticut Council on Soil and Water Conservation, dated 2002 to reduce the potential for erosion and sedimentation of disturbed soils (Ex. APP-1, Attachment O, Sheet C-5.06).

e. Alternatives Assessment

- (1) Fuss & O'Neill performed an alternatives assessment for proposed construction activities located in wetland areas. These activities include: clearing approximately 46 Acres of trees and brush from 15 feet riverward of the riverside toe to 15 feet landward of the landside drainage ditches in accordance with U.S. Army Corps of Engineers (USACOE) maintenance guidelines; Constructing approximately 4.4 miles of gravel maintenance access road to facilitate future maintenance work; re-grading the riverside embankment along approximately 1.4 miles of earthen dike to create a uniform surface for future mowing; and removing accumulated sediment and restoring proper drainage to approximately 2.2 miles of open channel drainage ditches. The Applicant evaluated several alternatives to the proposed dike and maintenance and repair project to: chemical defoliation in lieu of the proposed mechanical clearing of vegetation on the dike and within the 15' clear zones; notching of the proposed maintenance access road into the riverward toe of the dike; construction of a bituminous permanent access road rather than a gravel access road at the toe of the dike; construction of a grassed access road rather than a gravel access road at the toe of the dike; additional filling on the embankment rather than regrading; and not removing the vegetation and sediment from the land side ditch system (Exs. APP-1, Attachment J; DEP-5).
- (2) The Applicant revised its plans such that the maintenance access road at the Clark Dike from Station 10+00 to Station 20+00 and Station 26+00 to Station 50+00, consists of a gravel subbase overlain by vegetated topsoil (Ex. APP-1, Attachment O, Sheets G-0.01, C-1.01 to C-1.03, C-5.01 (rev. 9/19/05); Test. Lapinski, 9/21/05). On these sections of the maintenance access road, topsoil will be seeded immediately after construction (Ex. APP-1, Attachment O, C-5.01 (rev. 9/19/05)). The Applicant, as concurred with CTDEP staff, concluded in its alternatives assessment that the proposed project is the least environmentally damaging alternative that will comply with the USACOE maintenance guidelines (Exs. APP-1, Attachment J; DEP-5).

f. Mitigation

- (1) The Applicant proposes the clearing of 8.8 acres of wetlands within the Connecticut River floodplain and construction of 340,000 square feet of . This is an unavoidable impact due to the 15-foot wide clear zone required by the USACOE maintenance guidelines. To minimize the impact, the proposed maintenance access road is configured such that it is located along the most

landward portion of the floodplain along the toe of the dike thereby minimizing the affects to the principal functions and values of the wetland system. Nevertheless, disturbance to the wetlands and loss of wetland vegetation is expected (Exs. APP-1; DEP-5). Therefore, the Applicant proposes to mitigate for said loss by planting 127 trees in the Connecticut River floodplain along the Riverfront and North Meadows Dikes (Exs. APP-9; DEP-5).

- (2) The Applicant proposes the regrading and clearing of approximately 10,300 linear feet of drainage ditches to restore proper drainage and provide adequate control flood water which may seep into the earthen embankments. This is an unavoidable impact, but will not affect the existing principal functions and values of the wetlands (Exs. APP-1; DEP-5). To mitigate for this loss, the applicant proposes to remove invasive and noxious plant species and implement a long-term invasive species removal plan. In addition, the Applicant proposes to stabilize the banks of the regarded drainage ditches with a wetland specific seed mixture. The wetland seed mixture includes a mixture of grasses and wildflowers, which provide food for insects, birds and mammals (Exs. APP-9; DEP-5).
- (3) In its Draft Section 401 Water Quality Certification and Dam Safety Permit, dated September 12, 2005, the CTDEP specifies in the section entitled "Special Conditions,"Item 2 that "[b]y the expiration date of this permit, the permittee shall implement and complete the Wetland Mitigation Plan detailed on site plans entitled "Existing Wetlands Location And Mitigation Plan, Dike Repair And Maintenance Project, City of Hartford,"Sheet Nos. W-101, 102 & 103, dated April 2005 and prepared by Fuss & O'Neill, Inc."(Exs. APP-9; DEP-16).

## **B. CONCLUSIONS OF LAW**

### **1. Statutory Requirements**

Pursuant to C.G.S. §22a-403(b), "[t]he [C]ommissioner [of Environmental Protection] or his representative, engineer or consultant shall determine the impact of the construction work on the environment, on the safety of persons and property and on the inland wetlands and watercourses of the state in accordance with the provisions of section 22a-36 to 22a-45, inclusive, and shall further determine the need for a fishway in accordance with the provisions of section 26-136..."

#### a. The Need for a Fishway

By the criteria set forth in C.G.S. §26-136, no fishway is needed.

#### b. The Impact of the Construction Work on the Safety of Persons and Property

- (1) The Hartford Dike and the City of Hartford Flood Control System, in general, were constructed by the USACOE to provide protection against flooding for

approximately 3,000 acres of developed area (Ex. APP-1; Test. Lapinski 9/21/05).

- (2) In 2002, the Applicant commissioned a design study report of the Hartford Dike system entitled "Field Evaluation of Connecticut River Dike System and North and South Meadows Pumping Stations" by Purcell Associates. The report presents an engineering evaluation of the dike based on several criteria: settlement and stability; seepage; drainage; slope protection; accessibility; debris and siltation; and vandalism, trespass, or public encroachment. The report also presents specific recommendations to the City for addressing the observed deficiencies (Ex. APP-1, Attachment H).
  - (3) The following conditions, as cited by Purcell Associates and observed by the Applicant, the Consultant, and CTDEP staff, are present on the Hartford Dike requiring maintenance. In certain areas of the dike, trees and brush have taken root and are growing near the toe or on the earthen embankment. Open channel ditches designed to convey water away from the landside of the dike during flood conditions have become silted in and vegetated since their original construction. Nuisance wildlife has excavated burrows on the dike surface. In select locations, the concrete floodwalls have developed minor cracks, spalls, and settling. All of these conditions pose a potential risk to the integrity of the dike system and ultimately the persons and property located within the 3,000 acres of developed area the Hartford Dike was designed to protect. (Exs. APP-1, Attachment H; APP-3; Test. Lapinski, 9/21/05).
  - (4) The proposed activity is necessary to address the deficiencies in the Hartford Dike system and to protect the 3,000 acres of developed area, including persons and property, for which the Hartford Dike was designed (Ex. APP-1, Test. Lapinski, Rybak, 9/21/05).
- c. The Impact of the Construction Work on the Inland Wetlands and Watercourses of the State
- (1) The proposed access road on the riverside toe-of-dike will result in permanent impacts to approximately 8.8 acres of inland wetlands. Over this area, existing alluvial and floodplain soils will be cleared of vegetation and then re-graded, compacted, and overlain with gravel, or gravel overlain by vegetated topsoil (Ex. APP-1, Attachment O (rev. 9/19/05)).
  - (2) Permanent impacts to 10,300 linear feet of the wetlands and watercourses identified on the landside of the dike are also proposed. In these areas removal of accumulated sediment and vegetation will restore the ditches to their original design configuration (Ex. APP-1).
  - (3) To minimize the impact, the proposed maintenance access road is configured such that it is located along the most landward portion of the floodplain along

the toe of the dike thereby minimizing the affects to the principal functions and values of the wetland system. Nevertheless, disturbance to the wetlands and loss of wetland vegetation is expected (Exs. APP-1; DEP-5). Therefore, the Applicant proposes to mitigate for said loss by planting 127 trees in the Connecticut River floodplain along the Riverfront and North Meadows Dikes (Exs. APP-9; DEP-5).

- (4) To mitigate for this loss associated with maintenance of the wetlands and watercourses identified on the landside of the dike, the applicant proposes to remove invasive and noxious plant species from said wetlands and watercourses and implement a long-term invasive species removal plan. In addition, the Applicant proposes to stabilize the banks of the regarded drainage ditches with a wetland specific seed mixture. The wetland seed mixture includes a mixture of grasses and wildflowers, which provide food for insects, birds and mammals (Exs. APP-9; DEP-5).

d. The Impact of the Construction Work on the Environment

- (1) The Applicant has requested the necessary information pursuant to C.G.S. §26-310 regarding state listed threatened, endangered, or species of special concern (Ex. APP-1, Attachment I). The Applicant, the Applicant's Consultant, and CTDEP staff have communicated on several occasions regarding the need for protection of state listed threatened, endangered, or species of special concern, specifically the red bat (*Lasiurus borealis*), and the bald eagle (*Haliaeetus leucocephalus*). Based on correspondence among said parties, in its "Draft Section 401 Water Quality Certification and Dam Safety Permit," dated September 12, 2005, the CTDEP specifies in the section entitled "Special Conditions," Item 3 that "[b]etween January 1 and March 1 of each year, the permittee shall not conduct any construction activities within 100 feet of the Connecticut River bank," and in Item 4 that "[b]etween May 1 and July 31 of each year, the permittee shall not remove any woody vegetation within the Connecticut River floodplain forest along the riverward toe of the North Meadows Dike from Station 00+00 to 160+00" (Ex. DEP-16).
- (2) As with any construction project there is the potential for erosion of disturbed soil and resultant sedimentation of wetlands and watercourses (Ex. DEP-5). The Applicant has provided best management practices of sediment and erosion control measures in accordance with standards and specifications of the "2002 Connecticut Guidelines for Soil Erosion and Sediment Control" published by the Connecticut Council on Soil and Water Conservation, dated 2002 to reduce the potential for erosion and sedimentation of disturbed soils (Ex. APP-1, Attachment O, Sheet C-5.06).

### **C. CONCLUSION**

Upon review of the record and consideration of the facts and applicable law in this matter, the parties submit that the applicant meets the necessary statutory and regulatory criteria for permit approval. The proposed activities, if conducted in accordance with the terms and condition of the Draft permit as supplemented in this decision, will be consistent with the legal standards for issuance of said permit.


The parties request that the permit be issued pursuant to the terms and conditions of the attached draft permit as supplemented herein.




**D. AGREEMENT**

Based on the foregoing, the undersigned hereby agree to the granting of a permit subject to the general and special conditions stated in Exhibit DEP-5, Draft Section 401 Water Quality Certification and Dam Safety Permit, attached hereto.

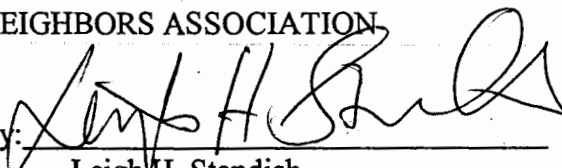
CITY OF HARTFORD

By:   
John H. McGrane, P.E.  
Assistant Director of Public Works

CONNECTICUT DEPARTMENT OF  
ENVIRONMENTAL PROTECTION,  
INLAND WATER RESOURCES  
DIVISION

By:   
Denise Ruzicka  
Director

WETHERSFIELD INVOLVES  
NEIGHBORS ASSOCIATION

By:   
Leigh H. Standish.  
Authorized Representative

# ATTACHMENT A

## SECTION 401 WATER QUALITY CERTIFICATE DAM SAFETY PERMIT

Permittee: City of Hartford  
Department of Public Works  
525 Main Street, Hartford, CT 06103

Attn: John H. McGrane, P.E., Assistant DPW Director/City Engineer

WQ Certification No.: WQC-200402582  
Permit No.: DS-04-18  
CT Dam Inv. Nos.: 6405, 6408, 6409 & 6410  
Town(s): Hartford & Wethersfield

Pursuant to 33 USC 1341 (401 Water Quality Certification) and Section 22a-403 of the Connecticut General Statutes, the City of Hartford ("permittee") is hereby permitted to conduct activities at the Hartford Dike System located in Hartford and Wethersfield, Connecticut (the "site") as set forth in application nos. WQC-200402582 and DS-04-18, filed with this Department on September 24, 2004 and described herein. The purpose of the project is to repair and perform maintenance on the Hartford Flood Control Dike in compliance with the guidance document entitled "Engineering and Design Guidelines for Landscape Plantings and Vegetation Management at Floodwalls, Levees and Embankment Dams – Manual No. 1110-2-301", dated January 1, 2000 and prepared by the U.S. Army Corps Engineers (the "project").

### AUTHORIZED ACTIVITY

Specifically, the permittee is authorized to conduct the dam repair and maintenance activities in accordance with said applications and plans which are a part thereof entitled: "Dike Repair and Maintenance Project, City of Hartford Department of Public Works, Contract No. E04-03, Connecticut DEP and USACOE Permit Submission, September 2004", dated 9/15/04 and **revised through 9/20/05**, prepared by Fuss & O' Neill Inc. **The proposed gravel roadway, associated with the project, is to be constructed for the purpose of providing future access for inspection, operation and maintenance of the Hartford Dike System.** Approximately 8.0 acres of Connecticut River floodplain forest on the riverward side of the dike and approximately 10,300 linear feet of watercourse on the landward side of the dike will be affected by the construction activities.

Said discharge(s) will comply with the applicable provisions of Section 301, 302, 303, 306 and 307 of said Act and will not violate Connecticut's Water Quality Standards.

This permit is subject to and does not derogate any present or future property rights or other rights and all public and private rights and to any federal, state, or local laws or regulations pertinent to the property or activity hereby. This authorization is subject to the following conditions:

### **SPECIAL CONDITIONS**

1. Not less than thirty (30) prior to the initiation of construction activities, the Permittee shall notify in writing the Town of Wethersfield Wetlands Agent, providing a schedule and sequence of construction activities and a schedule of project job meetings. Said written notice shall be sent to the following address:

Inland Wetlands Agent  
Town of Wethersfield  
505 Silas Deane Highway  
Wethersfield, CT 06106

2. By the expiration date of this permit, the permittee shall implement and complete the Wetland Mitigation Plan detailed on site plans entitled "Existing Wetlands Location And Mitigation Plan, Dike Repair And Maintenance Project, City of Hartford," Sheet Nos. W-101, 102 & 103 , dated April 2005 and prepared by Fuss & O' Neill Inc.
3. Between January 1 through March 1 of each year, the permittee shall not conduct any construction activities within 100 feet of the Connecticut River bank.
4. Between May 1 and July 31 of each year, the permittee shall not remove any woody vegetation within the Connecticut River floodplain forest along the riverward toe of the North Meadows Dike from Station 00+00 to Station 160+00.

### **GENERAL TERMS AND CONDITIONS**

1. **Initiation and Completion of Construction.** Permittee shall notify the Commissioner in writing no less than seven (7) days prior to commencement of permitted activities and no less than seven (7) days following completion of permitted activities.
2. **Rights.** This permit is subject to and does not derogate any present or future property rights or other rights or powers of the State of Connecticut, and conveys no property rights in real estate or material nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state, or local laws or regulations pertinent to the property or activity affected hereby.
3. **Expiration of Permit.** This permit shall expire three years from the date of issuance.

4. **Permit Actions.** This permit may be revoked, suspended, or modified in accordance with law, including but not limited to the Regulations of Connecticut State Agencies Section 22a-3a-5(d).
5. **Compliance with Permit.** All work and all activities authorized herein conducted by the permittee at the site shall be consistent with the terms and conditions of this permit. Any regulated activities carried out at the site, including but not limited to, construction of any structure, excavation, fill, obstruction, or encroachment, that are not specifically identified and authorized herein shall constitute a violation of this permit and may result in its modification, suspension, or revocation. In carrying out the certified discharge(s) authorized herein, the permittee shall not store equipment or construction material, or discharge any material including without limitation, fill, construction materials or debris in any wetland or watercourse on or off site unless specifically authorized by this permit. Upon initiation of the activities authorized herein, the permittee thereby accepts and agrees to comply with the terms and conditions of this permit.
6. **On-site Availability of Permit.** This permit and a copy of the approved plans and specifications shall be kept at the project site and made available to the Commissioner at any time during the construction of permitted activities.
7. **Engineer Supervision.** Permitted Activities shall be performed under the supervision of an engineer who is licensed to practice in the State of Connecticut and who is familiar with dam construction. Said engineer shall, upon completion of the permitted activities, certify to the Commissioner in writing that the permitted activities have been completed according to the approved plans and specifications.
8. **Approval for Modifications.** The permittee may not modify the permitted plans and specifications without the prior written approval of the Commissioner.
9. **Submission of Drawings.** Within thirty (30) days of completion of the permitted activities, permittee shall submit to the Commissioner record drawings depicting the dam construction as completed, including any deviations from the approved plans and specifications. Said drawings shall be prepared and sealed by the engineer who oversaw the construction.
10. **Fishway Requirements.** The Commissioner has determined in accordance with Section 26-136 of the Connecticut General Statutes that, as of the date this permit is issued, a fishway is not required at this dam.
11. **Transfer of Permit.** This permit is not transferable without the written consent of the Commissioner.
12. **Reliance on Application.** In evaluating the permittee's application, the Commissioner has relied on information provided by the permittee. If such information subsequently proves to be false, deceptive, incomplete or inaccurate, this permit may be modified, suspended or revoked.

**13. Best Management Practices.** In constructing or maintaining the activities authorized herein, the permittee shall employ best management practices, consistent with the terms and conditions of this permit, to control storm water discharges and erosion and sedimentation and to prevent pollution. Such practices to be implemented by the permittee at the site include, but are not necessarily limited to:

- a. Prohibiting dumping of any quantity of oil, chemicals or other deleterious material on the ground;
- b. Immediately informing the Commissioner's Oil and Chemical Spill Response Division at (860) 424-3338 (24 hours) of any adverse impact or hazard to the environment, including any discharges, spillage, or loss of oil or petroleum or chemical liquids or solids, which occurs or is likely to occur as the direct or indirect result of the activities authorized herein;
- c. Separating staging areas at the site from the regulated areas by silt fences or straw/hay bales at all times;
- d. Prohibiting storage of any fuel and refueling of equipment within twenty-five (25) feet from any wetland or watercourse;
- e. Preventing pollution of wetlands and watercourses in accordance with the document "Connecticut Guidelines for Soil Erosion and Sediment Control" as revised. Said controls shall be inspected by the permittee for deficiencies at least once per week and immediately after each rainfall and at least daily during prolonged rainfall. The permittee shall correct any such deficiencies within 48 hours of said deficiencies being found;
- f. Stabilizing disturbed soils in a timely fashion to minimize erosion. If a grading operation at the site will be suspended for a period of thirty (30) or more consecutive days, the permittee shall, within the first seven (7) days of that suspension period, accomplish seeding and mulching or take such other appropriate measures to stabilize the soil involved in such grading operation. Within seven (7) days after establishing final grade in any grading operation at the site the permittee shall seed and mulch the soil involved in such grading operation or take such other appropriate measures to stabilize such soil until seeding and mulching can be accomplished.
- g. Prohibiting the storage of any materials at the site which are buoyant, hazardous, flammable, explosive, soluble, expansive, radioactive, or which could in the event of a flood be injurious to human, animal or plant life, below the elevation of the five hundred (500) year flood. Any other material or equipment stored at the site below said elevation by the permittee or the permittee's contractor must be firmly anchored, restrained

or enclosed to prevent flotation. The quantity of fuel stored below such elevation for equipment used at the site shall not exceed the quantity of fuel that is expected to be used by such equipment in one day.

- h. Immediately informing the Commissioner's Inland Water Resources Division at (860) 424-3019 and the U.S. Army Corps of Engineers' Permit Compliance Section at (617) 647-8674, of the occurrence of pollution or other environmental damage resulting from construction or maintenance of the authorized activity or any construction associated therewith in violation of this permit. The permittee shall, no later than 48 hours after the permittee learns of a violation of this certificate, report same in writing to the Commissioner. Such report shall contain the following information:
- (i) the provision(s) of this permit that has been violated;
  - (ii) the date and time the violation(s) was first observed and by whom;
  - (iii) the cause of the violation(s), if known
  - (iv) if the violation(s) has ceased, the duration of the violation(s) and the exact date(s) and times(s) it was corrected;
  - (v) if the violation(s) has not ceased, the anticipated date when it will be corrected;
  - (vi) steps taken and steps planned to prevent a reoccurrence of the violation(s) and the date(s) such steps were implemented or will be implemented;
  - (vii) the signatures of the permittee and of the individual(s) responsible for actually preparing such report, each of whom shall certify said report in accordance with section 7 of this certificate.

For information and technical assistance, contact the Inland Water Resources Division at (860) 424-3019.

- 14. Certification of Documents.** Any document, including but not limited to any notice, which is required to be submitted to the Commissioner under this certificate shall be signed by the permittee, a responsible corporate officer of the permittee, a general partner of the permittee, or a duly authorized representative of the permittee and by the individual or individuals responsible for actually preparing such document, each of whom shall certify in writing as follows:

"I have personally examined and am familiar with the information submitted in this document and all attachments and certify that based on reasonable

investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief, and I understand that any false statement made in this document or its attachments may be punishable as a criminal offense in accordance with Section 22a-6 under Section 53a-157 of the Connecticut General Statutes."

15. **Submission of Documents.** The date of submission to the Commissioner of any document required by this permit shall be the date such document is received by the Commissioner. Except as otherwise specified in this permit, the word "day" as used in this permit means the calendar day. Any document or action which falls on a Saturday, Sunday, or legal holiday shall be submitted or performed by the next business day thereafter.

Any document or notice required to be submitted to the Commissioner under this permit shall, unless otherwise specified in writing by the Commissioner, be directed to:

Wesley Marsh  
Department of Environmental Protection  
Bureau of Water Management  
Inland Water Resources Division  
79 Elm Street, Third Floor  
Hartford, Connecticut 06106-5127

16. **Dam Owner/Operator Liability.** Pursuant to Section 22a-406 of the General Statutes: "Nothing in this chapter and no order, approval or advice of the Commissioner, shall relieve any owner or operator of a dam from his legal duties, obligations and liabilities, resulting from such ownership or operation. No action for damages sustained through the partial failure of any structure or its maintenance shall be brought or maintained against the state, the Commissioner of Environmental Protection, or his employees or agents."

This authorization constitutes the permit required by Section 22a-403 of the Connecticut General Statutes and the certification required by 33 U.S.C. 1341.

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Gina McCarthy  
Commissioner