No._____

City of Stamford
Environmental Protection Board
888 Washington Boulevard
Stamford, CT 06904
(203) 977-4028

APPLICATION FOR A PERMIT TO CONDUCT REGULATED ACTIVITIES

1. APPLICANT:

Name of Applicant: City of Stamford, Engineering Department

Home Address:_____

Telephone:_____ Email:_____

Business Address: 888 Washington Blvd., Stamford, CT 06901

Business Phone #: (203) 977-5796

Title / Address of Project (if applicable): Replacement of Bridge No. 04069
Lakeside Drive over North Stamford Reservoir

Applicant's Interest in the Property (check where appropriate):

Owner: ✔ Lessee:____ Lessor:____ Agent:_____ Other:____

2. OWNER:

Name of Property Owner: City of Stamford

Home Address:_____

Telephone:_____ Email:_____

Business Address: Same as above

Business Phone #:_____

If the applicant is not the owner of record, the owner must provide written/signed correspondence authorizing the applicant to file this application to conduct regulated activities.

2. LOCATION / DESCRIPTION:

a) Geographical location of the subject property in sufficient detail to allow identification of the property on the "Inland Wetlands and Watercourses Map" (orientation sketch may be included).

Bridge No. 04069 - Lakeside Drive over the North Stamford Reservoir, approximately 0.25 mi east of the intersection with N. Stamford Road

b) Lot Number:_____ List Number:_____
Subdivision #:_____ T-Map Number:_____
Total Acreage:_____ Assessor's Card #:_____
Zone: RA-3 Block Number:_____

c) The Property is located within 500 feet of a Municipal Boundary
Yes:__ ***See "Special Conditions", Section III of instructions*** No: ✔

d) The Property is located within a drinking water supply watershed:
Yes: ✔ ***See "Special Conditions", Section III of instructions*** No:__

e) The Property is serviced by (check where appropriate):
Septic system:___ Sewer:___ / Private well:___ Municipal water:___

4. REGULATED ACTIVITIES:

a) License is sought to conduct the following regulated activities (check all that apply):

Alteration:___ Deposition:____ Construction: ✔ Removal: ✔

Pollution:___ Obstruction:____ Other (Specify):_____

b) The proposed activities will affect the following (check all that apply):

Wetland Soils:____ Open Water:_____ Setback: ✔

Watercourse:___ Floodplain: ✔ Open Space/Conservation:___

Other (specify):_____

c) Purpose and brief description of all activities for which authorization is requested:

This City of Stamford project involves the replacement of Bridge No. 04069. The superstructure will be replaced, the existing abutments will be cut down to allow superstructure installation, and the new abutments will be constructed behind the existing abutments. Wildlife shelves will be constructed between the new and existing abutments. Modified riprap will be installed along the embankments for slope protection, and new metal beam rail will be installed within the project limits.

3. REGULATED ACTIVITIES (CON'T.):

d) **Existing Conditions - Area Totals (Entire Property):**

i) Square feet of wetlands: 0

ii) Linear feet of watercourse: 36

iii) Square feet of open water: 1320

iv) Square feet of floodplain: 5,800

v) Square feet of setback: 18,240

vi) Square feet of open space/conservation area: 25,200

e) **Proposed Conditions - Total Area Affected:**

i) Square feet of wetlands affected: 0

ii) Linear feet of watercourses affected: 0

iii) Square feet of open water affected: 0

iv) Square feet of floodplain affected: 427 (315 perm + 112 temp)

v) Square feet of setback affected: 11,327

vi) Square feet of open space/conservation area affected: 11,327

vii) Square feet of wetlands created: 0

4. Notice Requirements (see "General Notifications", Section II of instructions, for details):

a) Names and addresses of individuals notified of this pending application as required by "The Inland Wetland and Watercourse Regulations of the City of Stamford."

NAME	ADDRESS	LIST NUMBER
Provided separately		

(Attach separate sheets if necessary.)

b) See ***"Special Conditions", Section III of instructions,*** for additional notification requirements.

GENERAL CONDITIONS

The undersigned applicant understands that this application is to be considered complete when all information and documents required by the agency have been submitted.

The agency may request additional information to properly evaluate the proposed activities pursuant to Section 5.5 of the "Inland Wetland and Watercourse Regulations of the City of Stamford." The applicant will be notified in writing of any further information required or when the application is deemed complete.

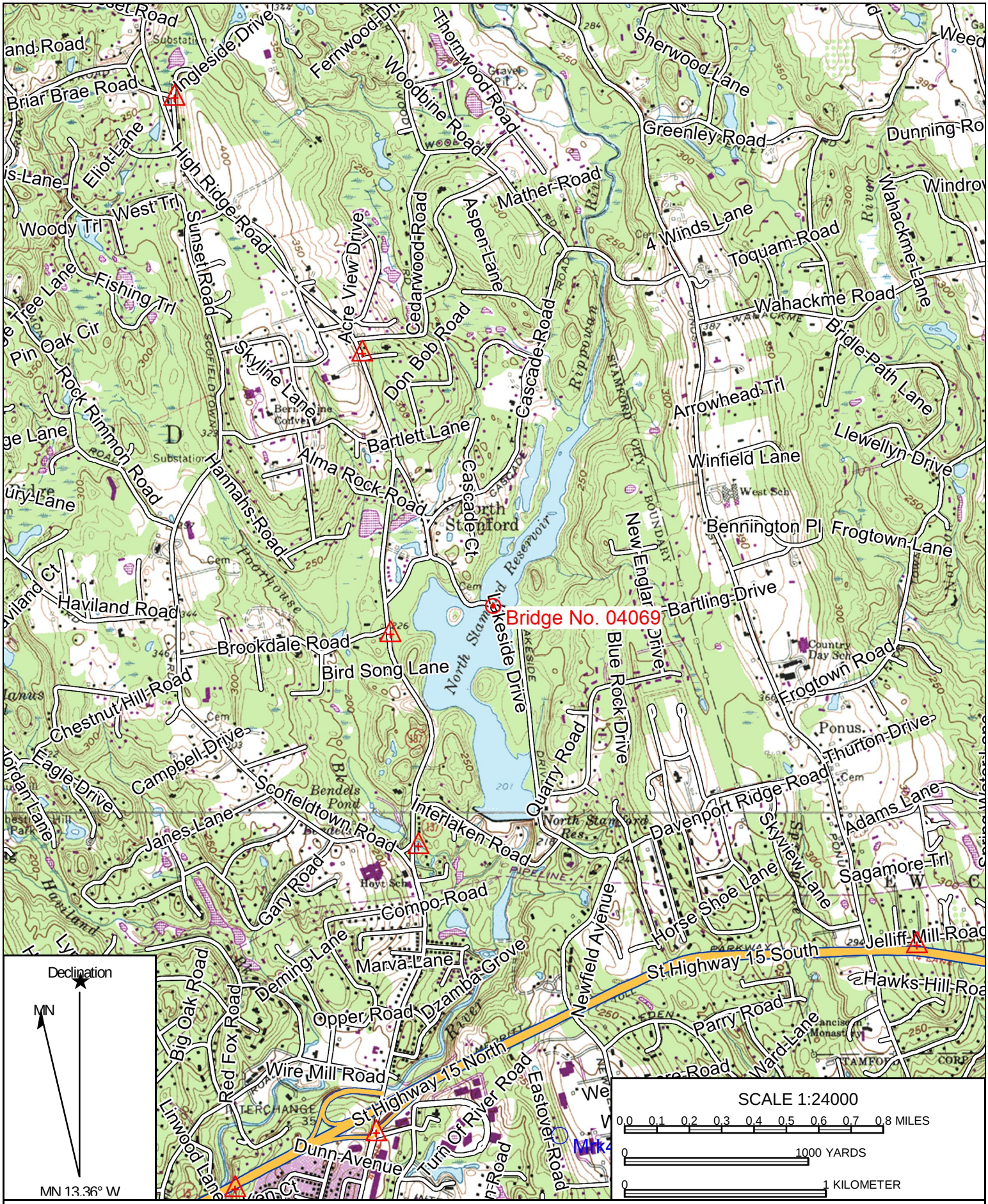
The undersigned warrants the truth of all statements contained herein and in all supporting documents according to the best of his/her knowledge.

The undersigned applicant hereby consents to necessary and proper inspections of the above property by authorized agents of the EPB.

Written signature _____

Printed signature Lou Casolo

Date 6.20.2023

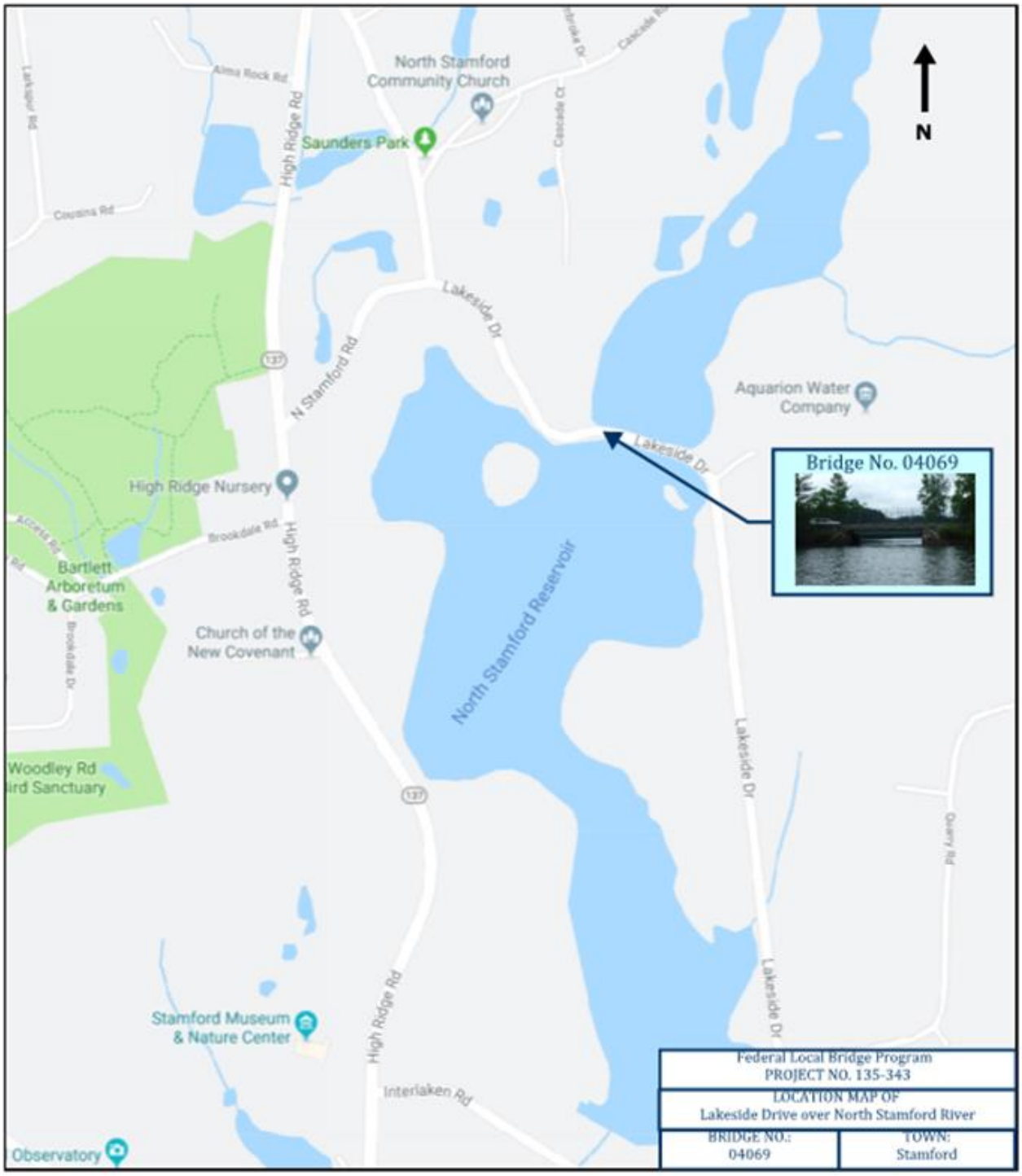


Name: POUND RIDGE
Date: 05/15/18
Scale: 1 inch = 2,000 ft.

Location: 041° 08' 03.93" N, 073° 32' 24.48" W
Lakeside Drive Over North Stamford Reservoir

Copyright (C) 2009 MyTopo

LOCATION MAP



AERIAL VIEW

Bridge No.
04069
Google
Federal Local Bridge Program
PROJECT NO. 135-343
Aerial MAP OF
Lakeside Drive over North Stamford River
BRIDGE NO.:
04069
TOWN:
Stamford

State Project No. 0135-0343

Replacement of Bridge No. 04069

Lakeside Drive over North Stamford Reservoir

City of Stamford Environmental Protection Board

Permit for Regulated Activities

Project Description

Close, Jensen and Miller, P.C. is submitting a regulated work permit application on behalf of the City of Stamford. The following project narrative describes the existing site conditions, proposed bridge replacement project, and resulting city regulated impacts.

Bridge No. 04069, Lakeside Drive over the North Stamford Reservoir, is scheduled for replacement as part of the Federal Local Bridge Program under State Project No. 0135-0343. The bridge, originally constructed in 1936 and reconstructed in 1993, is comprised of a reinforced concrete deck and steel beam superstructure, supported on stone masonry abutments and wingwalls. Lakeside Drive is classified as an Urban Local Road, and has a 2019 Average Daily Traffic (ADT) volume of 5,430 vehicles. The total structure length and width measure 40 feet and 24.8 feet, respectively. The bridge roadway has a curb-to-curb width of 23.4 feet and an approach width of 18 feet, which each provide two lanes (one lane each direction) of vehicular traffic and no sidewalks are present. The bridge is oriented perpendicular to the North Stamford Reservoir and is on a horizontal tangent section of roadway which transitions to an S-curve section of Lakeside Drive, traveling west across the bridge. Vertically, the bridge is located on the crest of a vertical curve. Metal beam rail and chain link fence, approximately 11 feet tall, is present along both approaches and is continuous over the bridge.

The existing structure exhibits a poor superstructure condition (NBIS rating 4). Heavy laminated rust with pitting is exhibited on the webs and bottom flanges of the girder ends. The structure also exhibits a critical deck geometry condition (NBIS rating 2) and serious approach roadway alignment condition (NBIS rating 3). The bridge roadway width is substandard for the average daily traffic (ADT) carried over the structure and the substandard roadway alignment is due to the S-curve located on the west approach. For these reasons, Bridge No. 04069 is recommended for replacement.

The proposed construction involves replacement of the existing structure with a galvanized steel beam superstructure and 8.5-inch reinforced concrete deck supported by micropile-supported reinforced concrete abutments. The proposed structure will have an overall length of approximately 60-feet. The proposed abutments will be installed behind the existing, and the existing abutments shall remain in place and cut down to allow the proposed beams to span over. The concrete slab will be overlain with waterproof membrane and a 3-inch bituminous wearing surface. New crash test rated 3-tube curb mounted bridge rail and a chain linked fence will be installed along the proposed structure and transition into new concrete endblocks. The new structure will be built on the existing horizontal and vertical alignment. The existing water main will be temporarily relocated during construction, then permanently installed outside of the downstream face of the bridge. The new structure will result in a total out-to-out width of 27.5 feet. The new roadway over the bridge will provide one 12-foot travel way in each direction resulting in a 24-foot curb-to-curb roadway width. A stone veneer will be utilized on the endblocks and substructure elements to replicate the aesthetics of the existing bridge. Construction duration is anticipated to be approximately 8 months. The construction activities for this project are anticipated to be performed within the existing street lines and therefore will be no Rights-of-way anticipated for this project.

Lakeside Drive will be closed to vehicular traffic during construction. A 2.2-mile detour will be implemented during the duration of construction (approximately 6 months) utilizing state and local roads. Access to adjacent properties will be maintained at all times during construction.

The drainage area of the North Stamford Reservoir / Rippowam River at the control point of the reservoir (dam and spillway) is delineated to be 21.5 square miles. The regulated resources at the site include a State Regulated Watercourse and Federally Regulated Waters of the U.S. No inland wetland resources are located within the project area. The project is located within a FEMA mapped Flood Zone A. Coordination has taken place with CT DEEP Fisheries and unrestricted upstream fish passage through the existing bridge will be maintained in the proposed conditions. Coordination with CT DEEP Natural Diversity Data Base identified State Threatened bald eagle and the project incorporates best management practices and protection protocols approved by CT DEEP.

The North Stamford Reservoir measures approximately 35 feet through Bridge No. 04069 and is wide and expansive to the north and south. The Rippowam River outlets the reservoir at a dam approximately 0.75 miles to the south. Coordination with the Department of Public Health (DPH) indicates the reservoir is a source of public drinking water and DPH recommendations have been incorporated into the project.

Impacts to the stream will be minimized through adherence to CTDOT Form 818, Section 1.10 Best Management Practices and the 2004 Connecticut Stormwater Quality Manual. Sedimentation and erosion control systems will be installed as necessary to limit disturbances to protect the wetlands and watercourses through adherence to the 2002 Connecticut Erosion and Sediment Guidelines. This includes a debris shield installed for the removal of the superstructure, sediment control systems installed at the toe of disturbed slopes, and stabilization and turf establishment of all disturbed areas. An absorbent debris boom will be installed downstream to catch floating contaminants as recommended by the Department of Public Health. Additional management practices will include, but are not limited to the following: storage of construction materials outside of wetlands and flood-prone areas, vehicle re-fueling and servicing at a location outside of the wetlands and watercourse, proper care and maintenance of vehicles and equipment. As recommended by CT DEEP Fisheries, unconfined instream work is restricted to the period from June 1 to September 30, inclusive.

There are no proposed impacts below the ordinary high water line. Environmental impacts are minimized by installing the new abutments behind the existing substructure. A floating absorbent boom will be installed across the downstream channel, anchored above ordinary high water, and will not disturb the streambed. Total impacts to the City of Stamford regulated upland review area, measured 100 feet landward of the ordinary high water line, amount to 11,327 square feet (0.26 acres). Upland impacts are due to installation of the new bridge structure, incidental roadway work, embankment grading, and riprap embankment protection. The upland impacts are within the previously disturbed roadway and structure footprint. Widening of the bridge approaches and roadway embankment grading results in the proposed removal of 26 trees. Replacement of trees will be as requested by the city, and the remaining trees will be protected.

Flood Hazard Area impacts are estimated to be 33 cy of excavation and 11 cy of fill, resulting in no net fill within the FEMA floodplain. Through hydraulic analysis it is shown that there is no rise (0.0 feet) in the calculated base flood elevation and the floodplain capacity is maintained.

Rehabilitation and replacement alternatives were assessed based on criteria including, but not limited to, construction cost, life cycle cost, constructability, environmental impact, safety design standards, connectivity, economic development, and traffic capacity. An alternative was considered to replace the

superstructure and utilize the existing stone masonry abutments, which are in satisfactory condition. However, subsurface investigation revealed the existing stone masonry would not support the design loads of the updated superstructure. The selected project will include micropile-supported abutments to support the new superstructure. The proposed structure will increase the clear span over the reservoir, facilitating the construction of riparian shelves for the passage of wildlife under the bridge, without additional environmental impacts. For the proposed structure, the 100-year hydraulic design storm and 500-year check storm do not incur bridge overtopping or pressure flow, as such, uplift on the structure is not a concern.

The proposed project will not require a U.S. Army Corps of Engineers permit as there are no impacts to regulated wetlands or Waters of the United States. The project will meet the requirements of the Flood Management Act and National Flood Insurance Program, and will receive State Flood Management approval. A CTDEEP Statewide Inland Wetlands & Watercourses Activity Reporting Form is included with the application for municipal use.

National Flood Hazard Layer FIRMette

FEMA

41°8'17.52"N

73°32'43.18"W

73°32'5.72"W

41°7'50.42"N

Feet 1:6,000

0 250 500 1,000 1,500 2,000

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth
- Regulatory Floodway *Zone AE, AO, AH, VE, AR*

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- B 20.2 / 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
- 8 Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

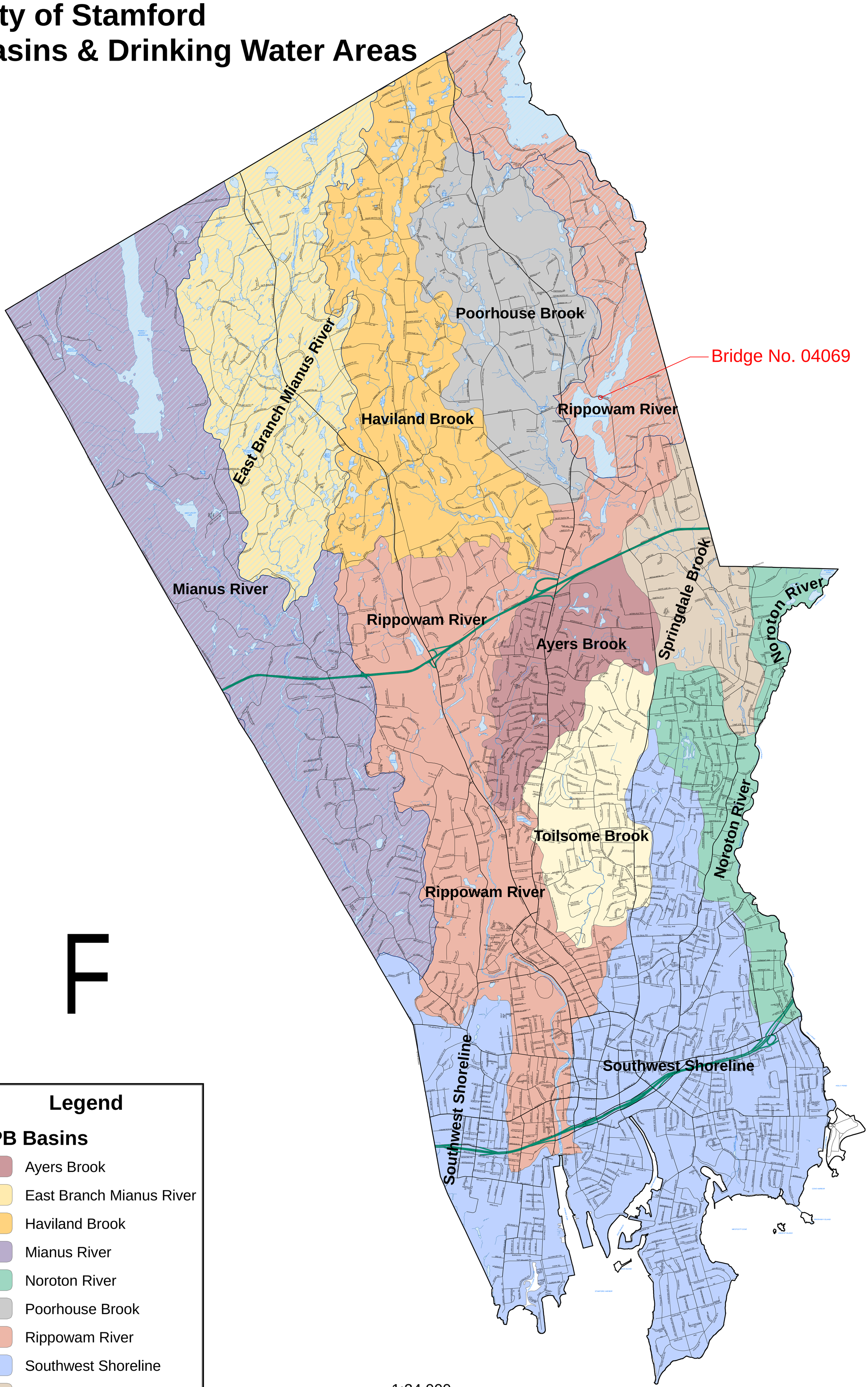
N

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The base map shown complies with FEMA's base map accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/18/2018 at 1:43:23 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: base map imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

City of Stamford
Basins & Drinking Water Areas



F

Legend

EPB Basins

- Ayers Brook
- East Branch Mianus River
- Haviland Brook
- Mianus River
- Noroton River
- Poorhouse Brook
- Rippowam River
- Southwest Shoreline
- Springdale Brook
- Toilsome Brook
- Drinking Water Areas

1:24,000

1 inch equals 2,000 feet

0 6,000 12,000 Feet

Disclaimer: Information displayed on this map is for general reference purposes only and is not represented as survey-accurate or up to date. All information is subject to verification by any user. The City of Stamford assumes no legal responsibility for the information contained herein. Map created 03/15/05 in the Land Use Bureau of the City of Stamford.

Data Sources: 1. Connecticut DEP, Environmental and Geographic Information Center
http://www.dep.state.ct.us/gis/dataguides/dep/layers/sbasin.htm
2. City of Stamford Evironmental Protection Board

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

Raul Pino, M.D., M.P.H.
Commissioner

Dannel P. Malloy
Governor

Nancy Wyman
Lt. Governor

Drinking Water Section

June 28, 2018

Thomas E. Weldon Jr.
Close, Jensen and Miller, P.C.
1137 Silas Deane Highway
Wethersfield, CT 06109-4201

Re: **Federal Local Bridge Program**
CTDOT Project #: 135-TBD
Replacement of Bridge No. 04069
City of Stamford
DPH Project #: 2018-0151

Dear Mr. Weldon:

The Drinking Water Section (DWS) of the Department of Public Health has reviewed the locations of the following bridge replacement project:

Project No.	**Bridge No.**	**Town**	**Road**	**Feature Crossed**	**Scope**	**Source Water Area/ Affected PWS**
135-TBD	04069	Stamford	Lakeside Drive	North Stamford River	Replacement	Aquarion Water of CT-Stamford System Stamford Reservoir System -Watershed PWSID: CT 1350011

Based on our review it appears that the above bridge project is located within the above noted source water area. The Drinking Water Section offers the following recommendations to protect this source of public drinking water:

- Erosion and sedimentation controls should be in place and properly maintained as necessary.
- A downstream suspended debris boom in conjunction with an absorbent boom should be installed to catch floating contaminants.

- A responsible party should be identified for maintenance, inspection, repair, and replacement and incorporation of new controls as may become necessary.
- Servicing of machinery should be completed outside of the Public Drinking Water Supply Watershed Area.
- Refueling of vehicles or machinery should take place on an impervious pad with secondary containment designed to contain fuels.
- Fuel and other hazardous materials should not be stored within the Public Drinking Water Supply Watershed Area.
- Any fuel or hazardous materials that must be kept within the Public Drinking Water Supply Watershed Area during working hours should be stored on an impervious surface utilizing secondary containment.
- A fuel spill remediation kit should be stored on-site so that any spills may be contained and cleaned quickly.
- Aquarion WaterCompany should be contacted prior to starting this project to review the scope of this project.
- Aquarion Water Company personnel should be allowed to periodically inspect this project to ensure that drinking water quality is not being adversely impacted.

If you have any questions regarding this matter, please contact Mira Lami of this office at 860-509-7333.

Sincerely,

Patricia Bisacky
Environmental Analyst 3
Drinking Water Section

Cc: Joseph Welsh, Manager—Environmental Protection, Aquarion Water Company

Connecticut Department of

ENERGY &
ENVIRONMENTAL
PROTECTION

October 7, 2022

Magdalena Lenczewski
Connecticut Department of Transportation
2800 Berlin Turnpike
Newington, CT 06131-7546
magdalena.lenczewski@ct.gov

Project: DOT PP135-0013, Replacement of Bridge No. 04069, Lakeside Drive over Stamford Reservoir, Stamford, Connecticut
Request No.: 202209906
Expiration Date: October 7, 2024

Dear Magdalena Lenczewski,

I have reviewed Natural Diversity Data Base maps and files regarding the area delineated on the map you provided for the proposed DOT PP135-0013, Replacement of Bridge No. 04069, Lakeside Drive over Stamford Reservoir, Stamford, Connecticut. According to our information there are known extant populations of State Threatened bald eagle *(Haliaeetus leucocephalus)* that occur within or very close to your project boundaries.

I concur with your proposed environmental compliance required best management practices that include the conservation and protection of State Threatened bald eagle *(Haliaeetus leucocephalus)*. I concur that by utilizing your proposed best management practices and protection protocols that the proposed activities will lessen the impact on this species.

This determination is good for two years. Please re-submit an NDDB Request for Review if the scope of work changes or if work has not begun on this project by October 7, 2024.

Natural Diversity Data Base information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Natural History Survey and cooperating units of DEEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Data Base should not be substitutes for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available.

Please contact me if you have further questions at (860) 424-3592, or dawn.mckay@ct.gov . Thank you for consulting the Natural Diversity Data Base.
Sincerely,

Dawn M. McKay

Dawn M. McKay
Environmental Analyst 3

SECTION 1.10 ENVIRONMENTAL COMPLIANCE

Article 1.10.03 Water Pollution Control:
REQUIRED BEST MANAGEMENT PRACTICES

Add the following after Required Best Management Practices Number 13:

14. The Contractor is hereby notified that the bald eagle *(Haliaeetus leucocephalus)* may be located within the vicinity of this Project. The bald eagle is a State threatened species and is also protected under both the Federal Bald and Golden Eagle Protection Act, and the Federal Migratory Bird Treaty Act. The bald eagle has adapted to life in urban settings and is becoming a common visitor in winter, particularly at favored locations along the Connecticut River, Housatonic River, and large lakes/reservoirs. In the winter, bald eagles may congregate into groups called communal winter roosts in order to conserve energy, take advantage of protective habitat, and be closer to food sources. The bald eagle is typically associated with large diameter trees (30 inch DBH or greater) for nest building and roosting purposes. Though somewhat tolerant of human activity, bald eagles can be negatively affected if work is too close to an active nest or winter roost. For this reason, special conditions regarding the location and timing of work around eagle usage areas must be adhered to.

    In order to protect this species, construction activities will not be allowed to take place within 600 feet of a confirmed nest or winter roost as follows:

    - Bald eagle nesting areas: Construction activities will not be allowed to take place within 600 feet of a confirmed nest between February 1st and August 1st.
    - Winter roost areas: Construction activities will not be allowed to take place within 600 feet of a confirmed winter roost area between December 1st and March 31st.

    Construction activities will be allowed within project areas that are outside the 600-foot buffer.

    Additionally, the cutting of large trees (30 inch DBH or greater) shall be reviewed and approved by the Engineer. Any change in construction sequencing or timing of proposed work in the Project area, which might disturb bald eagles must be coordinated through the Engineer.

    The time period and approximate areas of the Project expected to be subject to these restrictions based on the best available eagle activity information are attached. Prior to the start of work and during the Project, areas subject to these restrictions may be updated based on confirmed nest/winter roost information and shall be provided by the Engineer. Exact locations of nests/winter roosts will not be provided in order to further protect the species.

The Contractor shall, at least 10 days prior to the commencement of any construction activities, arrange for the Engineer to be available to meet and identify the approximate roost and/or nest location as well as discuss proper protocol for maintaining environmental commitments made to the protection of this species and habitat.

This species is protected by State and Federal law which prohibit killing, harming, taking, harassing, or keeping them in your possession. Workers shall be notified of the existence of bald eagles in the area and be apprised of the laws protecting them. Photographs of, and the laws protecting, bald eagles shall be posted in the Contractor's and Engineer field offices (species ID sheets will be provided by the Engineer). Any observations of this species are to be immediately reported to the Engineer.

Connecticut Department of
ENERGY & ENVIRONMENTAL PROTECTION

GIS CODE #: ___ ___ ___ ___ ___ ___ ___ ___ ___
For DEEP Use Only

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

Statewide Inland Wetlands & Watercourses Activity Reporting Form

Please complete this form in accordance with the instructions on pages 2 and 3 and mail to:
DEEP Land & Water Resources Division, Inland Wetlands Management Program, 79 Elm Street, 3rd Floor, Hartford, CT 06106
Incomplete or incomprehensible forms will be mailed back to the inland wetlands agency.

PART I: Must Be Completed By The Inland Wetlands Agency

1. DATE ACTION WAS TAKEN: year: _____ month: _____
2. ACTION TAKEN (see instructions - one code only): _____
3. WAS A PUBLIC HEARING HELD (check one)? yes ☐ no ☐
4. NAME OF AGENCY OFFICIAL VERIFYING AND COMPLETING THIS FORM:
   (print name) _____ (signature) _____

PART II: To Be Completed By The Inland Wetlands Agency Or The Applicant

5. TOWN IN WHICH THE ACTIVITY IS OCCURRING (print name): Stamford
   does this project cross municipal boundaries (check one)? yes ☐ no ☒
   if yes, list the other town(s) in which the activity is occurring (print name(s)): _____, _____
6. LOCATION (see instructions for information): USGS quad name: Pound Ridge or number: 106
   subregional drainage basin number: 7405
7. NAME OF APPLICANT, VIOLATOR OR PETITIONER (print name): City of Stamford
8. NAME & ADDRESS OF ACTIVITY / PROJECT SITE (print information): Lakeside Drive over North Stamford Reservoir
   briefly describe the action/project/activity (check and print information): temporary ☐ permanent ☒ description: Replacement of Bridge No. 04069
9. ACTIVITY *PURPOSE* CODE (see instructions - one code only): E
10. ACTIVITY *TYPE* CODE(S) (see instructions for codes): 1, 2, 9, 12
11. WETLAND / WATERCOURSE AREA ALTERED (see instructions for explanation, must provide acres or linear feet):
    wetlands: 0 acres open water body: 0 acres stream: 0 linear feet
12. UPLAND AREA ALTERED (must provide acres): 0.26 acres
13. AREA OF WETLANDS / WATERCOURSES RESTORED, ENHANCED OR CREATED (must provide acres): 0 acres

PART III: To Be Completed By The DEEP

DATE RECEIVED: DATE RETURNED TO DEEP:

FORM COMPLETED: YES NO FORM CORRECTED / COMPLETED: YES NO

Wetland Delineation Report

Connecticut Bridge Program

Replacement of Bridge No. 04069

State Project No. 135-343

Lakeside Drive over North Stamford Reservoir

Stamford, Connecticut

February 2020

FITZGERALD & HALLIDAY, INC.
Innovative Planning, Better Communities

CONNECTICUT DEPARTMENT OF TRANSPORTATION

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1. INTRODUCTION

Fitzgerald & Halliday, Inc. (FHI) was retained by Close, Jensen and Miller, PC (CJM) to identify and delineate wetlands and watercourses within, or adjacent to, the Replacement of Bridge No. 04069 Lakeside Drive project site in Stamford, Connecticut (**see Figure 1 – Overview Map**). This work effort is to support State Project No. 135-343. FHI soil scientists conducted the wetland investigation in October 2019. The methods used and results are detailed in this wetland delineation report.

2. METHODS

All wetland resources were delineated in accordance with state and federal definitions and guidelines. The identification of inland wetlands and watercourses, as regulated by the State of Connecticut, was based upon definitions contained in Section 22a-38 of the Connecticut General Statutes (CGS). Connecticut inland wetland boundaries are determined by the limit of any of the soil types designated as poorly drained, very poorly drained, alluvial, and floodplain by the National Cooperative Soils Survey, as may be amended from time to time, of the Natural Resources Conservation Service (NRCS) of the United States Department of Agriculture (§22a-38-15). NRCS soil surveys were consulted to compare field observed soil types to those generally expected in the project area. Hydric soils, which include both poorly and very poorly drained soils, were identified for conformance with the *Field Indicators for Identifying Hydric Soils in New England Version 4 (2019) and Field Indicators of Hydric Soils in the United States, Version 8.2* (2018).

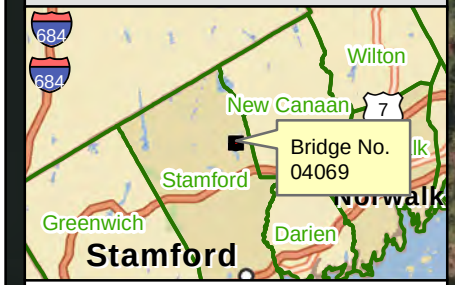
Federal wetlands were identified per the U.S. Army Corps of Engineers (USACE) 1987 *Wetland Delineation Manual* and the USACE 2012 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region – Version 2.0*. The federal wetland boundary was determined by the limit of wetland vegetation (limit of plant community dominated, 50% or more cover, by species adapted to living in wetland conditions) based on visual inspection, and via the observation of hydric soil indicators and wetland hydrology.

No USACE Wetland Determination Forms or Wetland Function and Value Forms were prepared for this project as no wetland systems were observed in the project area. Photographs were taken of the project area, and these representative photographs can be found in Appendix A. The delineation sketch graphic is depicted in **Figure 2 – Wetlands Sketch Map**.

Lakeside Drive over N. Stamford Reservoir
Bridge No. 04069
State Project No. 135-343
Stamford, CT
Figure 1
Overview Map

Legend

Approximate Limits of Investigation



N
W E
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Feet

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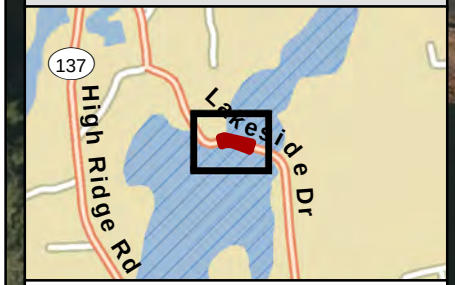
Lakeside Drive over N. Stamford Reservoir
Bridge No. 04069
State Project No. 135-343
Stamford, CT
Figure 2
Wetland Sketch Map

Legend

Approximate Limits of Investigation

Ordinary High Water (OHW)

NOTE:
-No Inland Wetlands Delineated



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Original in Color - FHI - 2/26/2020 JW

3. RESULTS

One permanent waterbody was observed within the project limits. Ordinary High Water (OHW) of North Stamford Reservoir was demarcated in the field within the project limits. The OHW extends beyond the project limits, along the edge of the North Stamford Reservoir as described in detail below. There were no state or federal wetlands observed in the project area, as the banks of North Stamford Reservoir are rocky and steep.

The NRCS mapped soil designation was Hinckley loamy sand, 3 to 15 percent slopes, for soils in the area surrounding all sides of Bridge 04069. Refer to Section 5.0 of this report for the NRCS map depicting the location and extent of these soil units and respective soil descriptions.

4. DETAILED RESOURCE DESCRIPTIONS

North Stamford Reservoir

North Stamford Reservoir, which runs beneath Bridge No. 04069, is a large permanent waterbody that is approximately 35 feet across at the bridge. The reservoir is wide and expansive on both the north and south sides of Bridge No. 04069. The North Stamford Reservoir flows slowly south and discharges over a dam into the Rippowam River, and ultimately into Long Island Sound. The reservoir is adjacent to Aquarion Water Company property in all directions.

Much of the project area is located on a causeway that carries Lakeside Drive over North Stamford Reservoir. The banks of North Stamford Reservoir in the project area are steep and armored with rocks. A narrow margin of small trees and shrubs line the top of the bank between the reservoir and roadway. The dominant vegetation in this upland area was Red Maple (*Acer rubrum*), Black Oak (*Quercus velutina*), and Northern Bayberry (*Myrica pensylvanica*). The reservoir both north and south of Bridge No. 04069 was mostly free of shade and the depth of the reservoir was too deep to measure in the field from the shore. The depth of the reservoir did not allow for the observation of the reservoir bottom.

Northwest of Bridge No. 04069 there was a deposit of accumulated wrack consisting of leaves, sticks, and debris that had blown across the reservoir into this corner. This accumulated, mostly fibric wrack was underlain by soils with weak mottles. This wrack area was below the OHW mark, and therefore was not delineated as a wetland resource. Sparse vegetation observed in this area included sedges (*Carex sp.*), Purple Loosestrife (*Lythrum salicaria*), Silky Dogwood (*Cornus amomum*), and Broadleaf Arrowhead (*Sagittaria latifolia*).

The North Stamford Reservoir provides fish and shellfish habitat and wildlife habitat.

5. NRCS MAPPED SOILS

The mapped Natural Resources Conservation Service (NRCS) soils classifications on the project site are depicted in **Figure 3 – NRCS Soils**.

Hinckley loamy sand, 3 to 15 percent

The Hinckley component makes up 85 percent of the map unit. This component is on kame terraces on valleys. The parent material consists of sandy and gravelly glaciofluvial deposits derived from gneiss and/or granite and/or schist. The natural drainage class is excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is very low. This soil is not flooded or ponded. There is no zone of water saturation within a depth of 72 inches. This soil does not meet hydric criteria.

6. SUMMARY

Ordinary High Water (OHW) of North Stamford Reservoir was demarcated by FHI in the field within the project limits. No inland wetland resources are located within the project area. The major resource in the project area is North Stamford Reservoir.

Representative photographs are attached to this report in Appendix A.

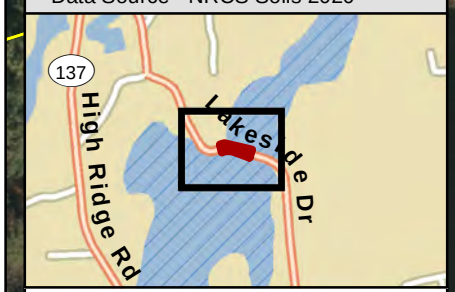
Lakeside Drive over N. Stamford Reservoir
Bridge No. 04069
State Project No. 135-343
Stamford, CT
Figure 3
NRCS Soils Map

Legend

Approximate Limits of Investigation

NRCS Mapped Soil Unit (Oct. 2019)

NOTE:
Data Source - NRCS Soils 2020



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Soil ID	Mapped Soil Unit	Parent Material	Drainage Class
38C	Hinckley loamy sand, 3 to 15 percent slopes	Glaciofluvial	Excessively drained
73E	Charlton-Chatfield complex, 15 to 45 percent slopes, very rocky	Melt-out Till - Moderate to Bedrock	Well drained
W	Water	Water	Water

Original in Color - FHI - 2/11/2020 JW

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APPENDIX A: REPRESENTATIVE PHOTOGRAPHS

APPENDIX A: REPRESENTATIVE PHOTOGRAPHS

Photo 1 – Northeast bank of North Stamford Reservoir and Bridge No. 04069 looking southwest

Photo 2 – Northwest bank of North Stamford Reservoir looking southeast

Photo 3 – Southeast bank of North Stamford Reservoir and Bridge No. 04069 looking northeast

Photo 4 – Southwest bank of North Stamford Reservoir and Bridge No. 04069 looking northwest

Photo 5 –North Stamford Reservoir and Bridge No. 04069 looking southeast

Photo 6 – Wrack area in northwest corner of North Stamford Reservoir looking west