April 14, 2022

Mr. Nicholas Moreno  
Boston Conservation Commission  
1 City Hall Square, Room 709  
Boston, MA 02201 

Re: Notice of Intent – Siphon Structure n – Nashua Street 

Dear Mr. Moreno and Members of the Conservation Commission, 

The Massachusetts Water Resources Authority (MWRA) will be performing necessary maintenance and repair activities to improve flood protection, site access, structural conditions, operational requirements, and odor control for selected sewer siphon and junction structures in the MWRA wastewater system as part of the Siphon/Junction Structure Rehabilitation Project (Project). The attached Notice of Intent is for MWRA’s Section 216, Station 11+12 (referred to as Structure n). The structure is located within 100-foot wetland buffer zone and a 25-foot riverfront protection area and a FEMA Flood Zone (Bordering Land Subject to Flooding). 

The notice of intent is being submitted under the Massachusetts Wetlands Protection Act. MWRA is claiming an exemption from the municipal bylaw. MWRA’s enabling act, Chapter 372 of the Acts of 1984, exempts it from local wetland bylaws. The section including this exemption is as follows:

SECTION 3
There is hereby created and placed in the executive office of environmental affairs a body politic and corporate and a public instrumentality to be known as the Massachusetts Water Resources Authority, which shall be an independent public authority not subject to the supervision or control of the executive office of environmental affairs or of any other executive office, department, commission, board, bureau, agency or political subdivision of the commonwealth except to the extent and in the manner provided in this act. The exercise by the Authority of the powers conferred by this act shall be deemed to be the performance of an essential public function.

We appreciate your time and look forward to working with you on this important Project. Please do not hesitate to contact the Project Manager, Milan Horbaczewski at Milan.Horbaczewski@mwra.com if you have any questions. 

Sincerely, 

John Colbert, PE Chief Engineer
cc: Rebecca Weidman, Director of Environmental & Regulatory Affairs, MWRA
    Milan Horbaczewski, PE, Program Manager, MWRA
    Michael Cunningham, PE, Kleinfelder
    Eileen Piskura, Kleinfelder
    Rachel Freed, Massachusetts Department of Environmental Protection
    Kate Oetheimer, Assistant Conservation Agent, City of Boston

Attachments

Appendix A: WPA Form 3 – Notice of Intent
Appendix B: Figures
    Figure 1: USGS Locus Map
    Figure 2: FEMA Flood Map
    Figure 3: Chapter 91 Tideland Jurisdiction Map
    Figure 4: Existing Site Plan Structure N
    Figure 5: Proposed Site Plan Structure N
Appendix C: Project Narrative
Appendix D: Affidavit of Service, List of Abutters, and Notification Form
Appendix E: Wetland Delineation Report
Appendix F: NOI Fee Transmittal Form and Copy of Fee Checks
APPENDIX A

WPA Form 3 – Notice of Intent
Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

A. General Information

1. Project Location (Note: electronic filers will click on button to locate project site):

   Nashua Street
   a. Street Address

   Boston
   b. City/Town

   02114
   c. Zip Code

   Latitude and Longitude:
   42.367618
   d. Latitude

   -71.067221
   e. Longitude

   0301931000
   f. Assessors Map/Plat Number

   g. Parcel /Lot Number

2. Applicant:

   John Colbert
   a. First Name

   Massachusetts Water Resources Authority (MWRA)
   b. Last Name

   100 First Avenue, Building 39
   c. Organization

   Boston
   d. Street Address

   MA
   e. City/Town

   02129
   f. State

   John.Colbert@MWRA.com
   g. Zip Code

   h. Phone Number

   i. Fax Number

3. Property owner (required if different from applicant):

   Priscilla Geigis
   a. First Name

   Deputy Commissioner of the Department of Conservation and Recreation
   b. Last Name

   251 Causeway Street, Suite 600
   c. Organization

   Boston
   d. Street Address

   MA
   e. City/Town

   02114
   f. State

   617-626-1250
   g. Zip Code

   priscilla.geigis@mass.gov

   h. Phone Number

   i. Fax Number

   j. Email address

4. Representative (if any):

   Christine Walsh
   a. First Name

   CDW Consultants, Inc.
   b. Last Name

   6 Huron Drive
   c. Company

   Natick
   d. Street Address

   MA
   e. City/Town

   01760
   f. State

   508-813-4257
   g. Zip Code

   cwalsh@cdwconsultants.com

   h. Phone Number

   i. Fax Number

   j. Email address

5. Total WPA Fee Paid (from NOI Wetland Fee Transmittal Form):

   $500
   a. Total Fee Paid

   $267.50
   b. State Fee Paid

   $262.50
   c. City/Town Fee Paid
A. General Information (continued)

6. General Project Description:

   The MWRA is planning to perform sewer structure upgrades and create access routes to the
   structures as needed. Three structures are located within the City of Boston and a Notice of Intent
   will be submitted individually for each structure. The structure subject to this Notice of Intent is Sewer
   Section 216, Station 11+12.

7a. Project Type Checklist: (Limited Project Types see Section A. 7b.)

   1. ☐ Single Family Home
   2. ☐ Residential Subdivision
   3. ☐ Commercial/Industrial
   4. ☐ Dock/Pier
   5. ☑ Utilities
   6. ☐ Coastal engineering Structure
   7. ☐ Agriculture (e.g., cranberries, forestry)
   8. ☐ Transportation
   9. ☐ Other

7b. Is any portion of the proposed activity eligible to be treated as a limited project (including Ecological
    Restoration Limited Project) subject to 310 CMR 10.24 (coastal) or 310 CMR 10.53 (inland)?

   1. ☐ Yes ☑ No
   If yes, describe which limited project applies to this project. (See 310 CMR
    10.24 and 10.53 for a complete list and description of limited project types)

2. Limited Project Type

   If the proposed activity is eligible to be treated as an Ecological Restoration Limited Project (310
   CMR10.24(8), 310 CMR 10.53(4)), complete and attach Appendix A: Ecological Restoration Limited
   Project Checklist and Signed Certification.

8. Property recorded at the Registry of Deeds for:

   Suffolk
   a. County
   b. Certificate # (if registered land)
   6160
   c. Book
   d. Page Number
   303

B. Buffer Zone & Resource Area Impacts (temporary & permanent)

1. ☐ Buffer Zone Only – Check if the project is located only in the Buffer Zone of a Bordering
   Vegetated Wetland, Inland Bank, or Coastal Resource Area.

2. ☑ Inland Resource Areas (see 310 CMR 10.54-10.58; if not applicable, go to Section B.3,
   Coastal Resource Areas).

   Check all that apply below. Attach narrative and any supporting documentation describing how the
   project will meet all performance standards for each of the resource areas altered, including
   standards requiring consideration of alternative project design or location.
### B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont’d)

<table>
<thead>
<tr>
<th>Resource Area</th>
<th>Size of Proposed Alteration</th>
<th>Proposed Replacement (if any)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Bank</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. ☒ Bordering Vegetated Wetland</td>
<td>0 (no alteration proposed)</td>
<td></td>
</tr>
<tr>
<td>c. ☐ Land Under Waterbodies and Waterways</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. ☒ Bordering Land Subject to Flooding</td>
<td>0 (no alteration proposed)</td>
<td></td>
</tr>
<tr>
<td>e. ☐ Isolated Land Subject to Flooding</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. ☒ Riverfront Area</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### For all projects affecting other Resource Areas, please attach a narrative explaining how the resource area was delineated.

#### Resource Area

<table>
<thead>
<tr>
<th>Size of Proposed Alteration</th>
<th>Proposed Replacement (if any)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. linear feet</td>
<td>2. linear feet</td>
</tr>
<tr>
<td>0 (no alteration proposed)</td>
<td></td>
</tr>
<tr>
<td>1. square feet</td>
<td>2. square feet</td>
</tr>
<tr>
<td>2. square feet</td>
<td></td>
</tr>
<tr>
<td>3. cubic yards dredged</td>
<td></td>
</tr>
<tr>
<td>0 (no alteration proposed)</td>
<td></td>
</tr>
<tr>
<td>1. square feet</td>
<td>2. square feet</td>
</tr>
<tr>
<td>0 (no alteration proposed)</td>
<td></td>
</tr>
<tr>
<td>3. cubic feet of flood storage lost</td>
<td>4. cubic feet replaced</td>
</tr>
<tr>
<td>0 (no alteration proposed)</td>
<td></td>
</tr>
<tr>
<td>1. square feet</td>
<td>2. square feet</td>
</tr>
<tr>
<td>0 (no alteration proposed)</td>
<td></td>
</tr>
<tr>
<td>2. cubic feet of flood storage lost</td>
<td>3. cubic feet replaced</td>
</tr>
</tbody>
</table>

#### Width of Riverfront Area (check one):

- ☒ 25 ft. - Designated Densely Developed Areas only
- ☐ 100 ft. - New agricultural projects only
- ☐ 200 ft. - All other projects

#### Total area of Riverfront Area on the site of the proposed project:

- 105 square feet

#### Proposed alteration of the Riverfront Area:

- 0 (no alteration proposed) 0 0

#### Has an alternatives analysis been done and is it attached to this NOI?

- ☒ Yes ☐ No

#### Was the lot where the activity is proposed created prior to August 1, 1996?

- ☒ Yes ☐ No

#### Coastal Resource Areas: (See 310 CMR 10.25-10.35)

**Note:** for coastal riverfront areas, please complete Section B.2.f. above.
B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont’d)

Check all that apply below. Attach narrative and supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

<table>
<thead>
<tr>
<th>Resource Area</th>
<th>Size of Proposed Alteration</th>
<th>Proposed Replacement (if any)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. ☐ Designated Port Areas</td>
<td>Indicate size under Land Under the Ocean, below</td>
<td></td>
</tr>
<tr>
<td>b. ☐ Land Under the Ocean</td>
<td>1. square feet</td>
<td>2. cubic yards dredged</td>
</tr>
<tr>
<td>c. ☐ Barrier Beach</td>
<td>Indicate size under Coastal Beaches and/or Coastal Dunes below</td>
<td></td>
</tr>
<tr>
<td>d. ☐ Coastal Beaches</td>
<td>1. square feet</td>
<td>2. cubic yards beach nourishment</td>
</tr>
<tr>
<td>e. ☐ Coastal Dunes</td>
<td>1. square feet</td>
<td>2. cubic yards dune nourishment</td>
</tr>
<tr>
<td>f. ☐ Coastal Banks</td>
<td>1. linear feet</td>
<td></td>
</tr>
<tr>
<td>g. ☐ Rocky Intertidal Shores</td>
<td>1. square feet</td>
<td></td>
</tr>
<tr>
<td>h. ☐ Salt Marshes</td>
<td>1. square feet</td>
<td>2. sq ft restoration, rehab., creation</td>
</tr>
<tr>
<td>i. ☐ Land Under Salt Ponds</td>
<td>1. square feet</td>
<td>2. cubic yards dredged</td>
</tr>
<tr>
<td>j. ☐ Land Containing Shellfish</td>
<td>1. square feet</td>
<td></td>
</tr>
<tr>
<td>k. ☐ Fish Runs</td>
<td>Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above</td>
<td></td>
</tr>
<tr>
<td>l. ☐ Land Subject to Coastal Storm Flowage</td>
<td>1. cubic yards dredged</td>
<td></td>
</tr>
</tbody>
</table>

4. ☐ Restoration/Enhancement
   If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.2.b or B.3.h above, please enter the additional amount here.
   a. square feet of BVW
   b. square feet of Salt Marsh

5. ☐ Project Involves Stream Crossings
   a. number of new stream crossings
   b. number of replacement stream crossings
C. Other Applicable Standards and Requirements

☐ This is a proposal for an Ecological Restoration Limited Project. Skip Section C and complete Appendix A: Ecological Restoration Limited Project Checklists – Required Actions (310 CMR 10.11).

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

1. Is any portion of the proposed project located in Estimated Habitat of Rare Wildlife as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage and Endangered Species Program (NHESP)? To view habitat maps, see the Massachusetts Natural Heritage Atlas or go to http://maps.massgis.state.ma.us/PRI_EST_HAB/viewer.htm.

   a. ☐ Yes ☑ No

If yes, include proof of mailing or hand delivery of NOI to:

   Natural Heritage and Endangered Species Program
   Division of Fisheries and Wildlife
   1 Rabbit Hill Road
   Westborough, MA 01581

   b. Date of map

   8/1/2021

If yes, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18). To qualify for a streamlined, 30-day, MESA/Wetlands Protection Act review, please complete Section C.1.c, and include requested materials with this Notice of Intent (NOI); OR complete Section C.2.f, if applicable. If MESA supplemental information is not included with the NOI, by completing Section 1 of this form, the NHESP will require a separate MESA filing which may take up to 90 days to review (unless noted exceptions in Section 2 apply, see below).

   c. Submit Supplemental Information for Endangered Species Review*

      1. ☐ Percentage/acreage of property to be altered:

         (a) within wetland Resource Area

            percentage/acreage

         (b) outside Resource Area

            percentage/acreage

      2. ☑ Assessor's Map or right-of-way plan of site

      2. ☑ Project plans for entire project site, including wetland resource areas and areas outside of wetlands jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work **

         (a) ☐ Project description (including description of impacts outside of wetland resource area & buffer zone)

         (b) ☐ Photographs representative of the site

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* Some projects not in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see https://www.mass.gov/ma-endangered-species-act-mesa-regulatory-review).

** MESA projects may not be segmented (321 CMR 10.16). The applicant must disclose full development plans even if such plans are not required as part of the Notice of Intent process.
C. Other Applicable Standards and Requirements (cont’d)

(c) ☐ MESA filing fee (fee information available at https://www.mass.gov/how-to/how-to-file-for-a-mesa-project-review). Make check payable to “Commonwealth of Massachusetts - NHESP” and mail to NHESP at above address.

Projects altering 10 or more acres of land, also submit:

(d) ☐ Vegetation cover type map of site

(e) ☐ Project plans showing Priority & Estimated Habitat boundaries

(f) OR Check One of the Following

1. ☐ Project is exempt from MESA review. Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, https://www.mass.gov/service-details/exemptions-from-review-for-projectsactivities-in-priority-habitat; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)

2. ☐ Separate MESA review ongoing.  
   a. NHESP Tracking #  
   b. Date submitted to NHESP

3. ☐ Separate MESA review completed. Include copy of NHESP “no Take” determination or valid Conservation & Management Permit with approved plan.

3. For coastal projects only, is any portion of the proposed project located below the mean high water line or in a fish run?

   a. ☒ Not applicable – project is in inland resource area only   b. ☐ Yes ☐ No

   If yes, include proof of mailing, hand delivery, or electronic delivery of NOI to either:

   South Shore - Cohasset to Rhode Island border, and the Cape & Islands:

   Division of Marine Fisheries -  
   Southeast Marine Fisheries Station  
   Attn: Environmental Reviewer  
   836 South Rodney French Blvd.  
   New Bedford, MA  02744  
   Email: dmf.envreview-south@mass.gov

   North Shore - Hull to New Hampshire border:

   Division of Marine Fisheries -  
   North Shore Office  
   Attn: Environmental Reviewer  
   30 Emerson Avenue  
   Gloucester, MA 01930  
   Email: dmf.envreview-north@mass.gov

   Also if yes, the project may require a Chapter 91 license. For coastal towns in the Northeast Region, please contact MassDEP’s Boston Office. For coastal towns in the Southeast Region, please contact MassDEP’s Southeast Regional Office.

   c. ☐ Is this an aquaculture project?  
      d. ☐ Yes ☒ No

   If yes, include a copy of the Division of Marine Fisheries Certification Letter (M.G.L. c. 130, § 57).
C. Other Applicable Standards and Requirements (cont’d)

4. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?
   a. ☐ Yes ☒ No
   If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations). **Note:** electronic filers click on Website.

   b. ACEC

5. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?
   a. ☐ Yes ☒ No

6. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L. c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L. c. 130, § 105)?
   a. ☐ Yes ☒ No

7. Is this project subject to provisions of the MassDEP Stormwater Management Standards?
   a. ☐ Yes. Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:
      1. ☐ Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol. 2, Chapter 3)
      2. ☐ A portion of the site constitutes redevelopment
      3. ☐ Proprietary BMPs are included in the Stormwater Management System.

   b. ☒ No. Check why the project is exempt:
      1. ☐ Single-family house
      2. ☐ Emergency road repair
      3. ☐ Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

D. Additional Information

☐ This is a proposal for an Ecological Restoration Limited Project. Skip Section D and complete Appendix A: Ecological Restoration Notice of Intent – Minimum Required Documents (310 CMR 10.12).

Applicants must include the following with this Notice of Intent (NOI). See instructions for details.

**Online Users:** Attach the document transaction number (provided on your receipt page) for any of the following information you submit to the Department.

1. ☒ USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)

2. ☒ Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.
D. Additional Information (cont’d)

3. Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.

4. List the titles and dates for all plans and other materials submitted with this NOI.

   Site Plan Structure n (90% Design)
   a. Plan Title
   b. Prepared By
   October 2021
   c. Signed and Stamped by
   1" = 20'
   d. Final Revision Date
   e. Scale
   f. Additional Plan or Document Title
   g. Date

5. If there is more than one property owner, please attach a list of these property owners not listed on this form.

6. Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.

7. Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.

8. Attach NOI Wetland Fee Transmittal Form


E. Fees

1. Fee Exempt: No filing fee shall be assessed for projects of any city, town, county, or district of the Commonwealth, federally recognized Indian tribe housing authority, municipal housing authority, or the Massachusetts Bay Transportation Authority.

   Applicants must submit the following information (in addition to pages 1 and 2 of the NOI Wetland Fee Transmittal Form) to confirm fee payment:

   26427 3/3/2022
   2. Municipal Check Number 3. Check date
   26423 3/3/2022
   4. State Check Number
   CDW Consultants, Inc.
   6. Payor name on check: First Name
   7. Payor name on check: Last Name
Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands  
WPA Form 3 – Notice of Intent  
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

F. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the wetlands regulations, 310 CMR 10.05(5)(a).

I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. 131, § 40. Notice must be made by Certificate of Mailing or in writing by hand delivery or certified mail (return receipt requested) to all abutters within 100 feet of the property line of the project location.

[Signature]

1. Signature of Applicant

2. Date

3. Signature of Property Owner (if different)

4. Date

5. Signature of Representative (if any)

5/11/22

5/16/22

For Conservation Commission:

Two copies of the completed Notice of Intent (Form 3), including supporting plans and documents, two copies of the NOI Wetland Fee Transmittal Form, and the city/town fee payment, to the Conservation Commission by certified mail or hand delivery.

For MassDEP:

One copy of the completed Notice of Intent (Form 3), including supporting plans and documents, one copy of the NOI Wetland Fee Transmittal Form, and a copy of the state fee payment to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery.

Other:

If the applicant has checked the "yes" box in any part of Section C, Item 3, above, refer to that section and the Instructions for additional submittal requirements.

The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.
APPENDIX B

Figures
Legend

- Site Location

Sources: MassGIS, FEMA, Klienfelder

USGS Locus Map – Structure N
Boston, MA
Massachusetts Water Resources Authority
Legend

FEMA National Flood Hazard Layer Legend

Flood Zone Designations

- **A**: 1% Annual Chance of Flooding, no BFE
- **AE**: 1% Annual Chance of Flooding, with BFE
- **AF**: Regulatory Floodway
- **AH**: 1% Annual Chance of 1-3ft Ponding, with BFE
- **AO**: 1% Annual Chance of 1-3ft Sheet Flow Flooding, with Depth
- **VE**: High Risk Coastal Area
- **D**: Possible But Undetermined Hazard
- **X**: 0.2% Annual Chance of Flooding
- **X**: 1% Drainage Area < 1 Sq. Ml.
- **X**: Reduced Flood Risk due to Levee
- **X**: Area Not Included
- **Area with no DFIRM - Paper FIRMs in Effect**
- **Site Location**

Sources: MassGIS, FEMA, Klienfelder
CONTRACTOR TO PROTECT EXISTING WETLAND AREA AND RIVERFRONT AREA

SECTION 216
STA 0011+12
NASHUA STREET
25' RIVERFRONT AREA BORDERING VEGETATED WETLAND
APPROXIMATE ANNUAL MAX-WATER ELEVATION TOP OF RIVERBANK
EXISTING GRADE
110.43
FEMA 100-YEAR ELEVATION 110.43

PROFILE
VERT 1" = 4'    HORIZ 1" = 20'

NOTES:
1. THIS BASE MAP INFORMATION WAS PREPARED BY GREEN INTERNATIONAL ASSOCIATES (GREEN). THIS PLAN WAS PREPARED FROM ACTUAL ON-THE-GROUND FIELD SURVEYS CONDUCTED BY GREEN FROM AUGUST 2020 TO NOVEMBER 2020.
2. HORIZONTAL CONTROL WAS ESTABLISHED BY GREEN ON AUGUST 25, 2020. HORIZONTAL DATUM IS BASED ON THE MASSACHUSETTS STATE PLANE COORDINATE SYSTEM (MAINLAND) NAD83 (2011), 2010.00 EPOCH.
3. VERTICAL CONTROL WAS ESTABLISHED BY GREEN ON AUGUST 25, 2020. VERTICAL DATUM IS NAVD 88 (COMPUTED USING GEOID 18B) THEN CONVERTED TO MWRA SEWER DATUM. CONVERSION FROM NAVD 88 TO MWRA SEWER DATUM IS OBTAINED BY ADDING 106.427' TO THE PROJECT DATUM.
4. THE WETLAND BOUNDARY FLAGS SHOWN HEREON WERE PLACED BY CDW CONSULTANTS, INC. IN THE FALL OF 2020.

NOT FOR CONSTRUCTION
CONTRACTOR TO PROTECT EXISTING WETLAND AREA AND RIVERFRONT AREA

SECTION 216
STA 001 +12

500 SF STAGING AREA (ACTUAL LOCATION TO BE VERIFIED IN THE FIELD)

TRAVEL CORRIDOR LIMITED TO EXISTING WALKWAYS

DCR PARK TO BE UTILIZED FOR ACCESS ALONG NASHUA STREET. COORDINATE WITH DCR FOR ACCESS.

MAINTAIN RECREATIONAL ACCESS. CONTRACTOR TO MAINTAIN TRAFFIC ON NASHUA STREET. PROMPTLY REPAIR ANY DAMAGE AT NO ADDITIONAL COST TO THE AUTHORITY.

NASHUA STREET

APPROX. MEAN ANNUAL HIGH WATER ELEVATION

EXISTING GRADE

FEMA 100-YEAR ELEV. 110.43

TOP OF RIVERBANK

SCALE IN FEET

SCALE: 1" = 20'

NOT FOR CONSTRUCTION

NOTES

1. NO ACCESS ROAD PROPOSED FOR STRUCTURE N.
2. CONTRACTOR SHALL USE THE PROPOSED ACCESS CORRIDOR FOR ACCESS TO THE STRUCTURE DURING CONSTRUCTION AND LIMIT SITE DISTURBANCE TO WITHIN THE CORRIDOR. GROUND SURFACE SHALL BE PROTECTED AS REQUIRED AND RESTORED TO PRE-CONSTRUCTION CONDITIONS UPON COMPLETION OF WORK. PROTECT AND SECURE EXISTING WORK ZONES, MATERIALS, AND EQUIPMENT STORED DURING CONSTRUCTION.
3. PROTECT TREES ADJACENT TO TRAVEL CORRIDOR AS SHOWN ON G-001. CONTRACTOR TO ALSO PROTECT LANDSCAPING, SITE FEATURES, AND HARDSCAPE SURFACES. REPAIR ANY DAMAGE AT NO ADDITIONAL COST TO THE AUTHORITY.

SIPHON/JUNCTION STRUCTURE REHABILITATION PHASE 1

PROPOSED SITE PLAN

STRUCTURE N

BOSTON, MA
APPENDIX C

Project Narrative
Notice of Intent – Project Narrative
MWRA Siphon/Junction Structure Rehabilitation Project
June 2022

Introduction
This Notice of Intent is submitted under the Massachusetts Wetlands Protection Act (WPA) (310 CMR 10.0000) for the proposed work associated with necessary maintenance and repair activities to improve flood protection, site access, structural conditions, operational requirements, and odor control for selected sewer siphon and junction structures in the Massachusetts Water Resources Authority (MWRA) wastewater system as part of the Siphon/Junction Structure Rehabilitation Project (Project). Three structures are located within the City of Boston (City) and, as instructed by the Commission, a Notice of Intent will be submitted individually for each structure. The structure subject to this Notice of Intent is Sewer Section 216, Station 11+12 (referred to as structure n). This structure is located within a 100-foot wetland buffer zone, within a 25-foot riverfront protection area, and Bordering Land Subject to Flooding (BLSF). MWRA sought to have this utility maintenance work exempt per 310 CMR 10.02(2)(a)2:

(a) Activities Within the Areas Subject to Protection under M.G.L. c. 131, § 40. Any activity proposed or undertaken within an area specified in 310 CMR 10.02(1), which will remove, fill, dredge or alter that area, is subject to Regulation under M.G.L. c. 131, § 40 and requires the filing of a Notice of Intent except:

2. activities conducted to maintain, repair or replace, but not substantially change or enlarge an existing and lawfully located structure or facility used in the service of the public and used to provide...water, sewer...provided said work utilizes the best practical measures to avoid or minimize impacts to wetland resource areas outside the footprint of said structure or facility. A project proponent claiming that work to remove, fill, dredge or alter an area specified in 310 CMR 10.02(1) does not require the filing of a Notice of Intent has the burden of establishing that the work is not subject to Regulation under M.G.L. c. 131, § 40.

MWRA requested the exemption in a letter dated September 16, 2021 and was instructed by the Boston Conservation Commission to submit this Notice of Intent.

Background
The MWRA has 146 sewer siphon structures and junction structures located throughout the MWRA’s wastewater collection system. The MWRA, through its engineering and operations staff, conducted inspections in 2019 to review and update the recommended improvements and developed a prioritized list of 41 structures to include in this Project. The MWRA based its evaluation on both the need for improvements and flood protection.

The purpose of the Project is to improve flood protection, site access, structural conditions, operational requirements, and odor control for the selected siphon and junction structures. Increased flooding caused by climate change has the potential to inundate MWRA sewer structures located near riverine areas, which could lead to backups and overflows of sewer pipelines. This work to maintain structural integrity to avoid backups and overflows of wastewater of the sewer system is essential to preserve public health and the environment.
Location Description – Section 216, Station 11+12 (referred to as Structure n)

Structure n is located within the Nashua Street Park in the Charles River Reservation in Boston. This area is part of the Charles River Reservation, a Protected Open Space (conservation land) owned by the Massachusetts Department of Conservation and Recreation (DCR). The structure is located on the south side of the Charles River within the partially hardscaped and partially landscaped park. Current access to the structure is from Nashua Street, and construction vehicles are currently able to perform necessary maintenance work from the street.

The Boston Inner Harbor abuts the park to the north, elevated train tracks and Charles River Dam Road (Route 28) abut the park to the west, a Mass General Hospital office building abuts the park to the east and Nashua Street abuts the park to the south, beyond which is the Suffolk County Sheriff’s Department building. The structure and a portion of the access route are located within a FEMA Flood Zone AE with a 1% annual chance of flooding, with Base Flood Elevation (BLSF).

In general, the sequence of work will begin with the contractor rehabilitating and lining the interior of the structure then replacing the manhole cover and roof plates. Because the site can be accessed directly from the public way, no access improvements, ground disturbance, or vegetation removal are needed and no impacts to the resource area are anticipated. Existing paved park paths will be used to bring smaller equipment and vehicles near the structure as feasible to facilitate the work. Some tree pruning of sweet gum and pin oak trees may be required for safe access of smaller vehicles to the structure and no trees will need to be removed. In accordance with the Project’s environmental protection procedures specification (Section 01110), tree trimming would be completed under the supervision of an arborist. Larger vehicles associated with the structure lining that cannot fit within existing paved paths will remain on Nashua Street during the work. An Access Permit from the Massachusetts Department of Transportation is being prepared and will be submitted prior to construction.

During construction, an approximately 500-square foot staging area will be utilized east of the structure within an existing clearing, if needed by the contractor. This area is outside the Riverfront Area on a grassed area of the park and will provide space for limited storage; the majority of materials will be brought in and out daily with the construction crew, however, some machinery and equipment may be stored overnight. No materials with the potential to cause contamination will be stored overnight unless it is in a secure, weatherproof container. The staging area will be removed after construction is completed and ground surface will be returned to pre-construction conditions.

Park surfaces will be protected, and any damage will be restored to pre-construction conditions. The Project’s topsoil and seeding specifications require the contractor to decompact and prepare areas to be restored and maintain seeded areas throughout the duration of a “maintenance period,” which lasts one year after substantial completion, i.e. the warranty period. There are requirements within those specifications for ensuring germination, fixing erosion, and reseeding. The Project’s environmental protection procedures specifications (Sections 01100, 01110) require procedures for protecting features throughout the project area, restricting operations to the limits of the designated locations, regular sweeping and dust control, and paving.

The proposed design and restoration have been reviewed by the Massachusetts Department of Conservation (DCR) through a series of pre-application meetings with the MWRA for their pending Access Permit for this project. All DCR comments have been incorporated into the design.
Wetland Resource Areas/Buffer Zones

Wetland resource areas relative to the project sites were delineated in accordance with the procedures described in the WPA regulations by CDW Consultants, Inc. (CDW) through field inspections in August 2020. The Wetland Resource Evaluation and Massachusetts Department of Environmental Protection (MassDEP) BVW Field Data Forms are attached.

As previously stated, the work is proposed to be conducted within a 100-foot wetland buffer zone, within a riverfront and within a BLSF as shown on Figure 2. Additionally, structure n is located within Tidelands Jurisdiction Chapter 91 Historic High Water area as shown on Figure 3. MWRA has confirmed with MassDEP that the proposed work is maintenance of fill and structures exempt from licensing pursuant to 310 CMR 9.05(3)(c) and authorized under 310 CMR 9.22(1) without the need for Chapter 91 licensing. The project site is not located within any Areas of Critical Environmental Concern (ACEC), Natural Heritage and Endangered Species Program (NHESP) Priority Habitat or Estimated Habitat of Rare Species, or vernal pools according to data available on the Massachusetts Geographic Information System (MassGIS) Online Mapping Tool.

The project has been designed to comply with the Massachusetts Wetlands Protection Act (M.G.L. Chapter 131, Section 40) and its implementing Regulations (310 CMR 10.00). The project meets the performance standards for each applicable resource area:

- **310 CMR 10.57(4)(a) – Bordering Land Subject to Flooding**
  1. No flood storage volume will be lost as the result of the proposed project within Bordering Land Subject to Flooding.
  2. The work within Bordering Land Subject to Flooding will not restrict flows so as to cause an increase in flood stage or velocity.
  3. The work is not within a portion of BLSF that is significant to the protection of wildlife habitat and will not alter more than 10% of the parcel or more than 5,000 square feet of land in the resource area.

- **310 CMR 10.58(4) – Riverfront Area**
  (a) The work meets the performance standards for all other resource areas within the riverfront area.
  (b) The work is not located within a Priority Habitat or Estimated Habitats of Rare Wildlife or certified vernal pool.
  (c) There is no practicable and substantially equivalent economic alternative to the proposed project with less adverse effects.
  (d) The work has no significant adverse impact on the riverfront area.

The wetland flags depicted on Figure 4 represent the edge of BVW as well as the top of bank. Based on the United Stated Geological Survey data for the Charles River, the highest water elevation recorded in the area of the site between July 2021 to June 2022 was at approximately 108.5 feet which represents the annual mean high water line. No alterations are proposed within the BLSF, wetland buffer zone, or the Riverfront Area. The work being conducted in these resource areas is limited to the existing structure itself.
Summary of Proposed Work

Proposed improvements to the structures include:

- **Waterproofing/Flood Protection** – Providing resistance to flooding and inundation
  - Watertight manhole ingress and internal leak sealing
- **Ingress** – Improving access into the structure through top of structure modifications
  - Replace existing with new 30-inch manhole cover and galvanized plate
- **Structural** – Providing structure renewal through internal surface rehabilitations and repairs
  - Internal surface lining
- **Mechanical/Operational** – Providing operational enhancements through stop log/weir plate modifications
  - None
- **Odor Control** – Providing odor (and moisture) mitigation
  - None

No access route improvements are proposed for structure n.

Alternatives Analysis

Structure n is within a promenade in the Nashua Street Park in Boston, owned by DCR. Two access routes were identified during the site visits, but access improvements are not recommended. Route n-1 is a paved path accessible from Nashua Street at Charles River Dam Road that heads east to the plaza. The path is not suitable for heavy vehicles and there is not adequate clearance under the MBTA Green Line viaduct; however, smaller vehicles can use the path to get to the edge of the promenade, which is approximately 60 feet from the structure. The contractor will be required to keep large vehicles along the edge of Nashua Street, nearest to the structure and hoses for the interior lining will be carried from there, which is approximately 80 feet. Route n-2 is a paved path accessible from Nashua Street that heads west to the promenade. Although this path is also not suitable for heavy vehicles, it is another option for smaller vehicles to get to the edge of the promenade, which is approximately 50 feet from the structure.

The proposed activities are necessary to prolong the functionality of the structure for transporting sewage and protecting the structure from floodwater inundation. Therefore, the alternative to leave the structure as is and not complete the maintenance activities was deemed infeasible.

Compliance with Massachusetts Stormwater Policy

Massachusetts Stormwater Management Policy and the standards at 310 CMR 10.05(6)(k) are generally not applicable because the Project is not creating any impervious surfaces, stormwater conveyances, or stormwater systems covered by the standards. The Stormwater standards and the manner the Project complies with them are summarized as follows:
Standard 1: As no new impervious surfaces will be constructed, there will be no new stormwater point source discharges to untreated stormwater into, or causing erosion to, wetlands and waters.

Standard 2: Post-development peak discharge rates will not exceed pre-development peak discharge rates.

Standard 3: This Project will not result in an increase in impervious area and no loss of groundwater recharge will occur.

Standard 4: This Project will not result in an increase in impervious area and therefore does not require TSS removal facilities.

Standard 5: This Project does not contain land uses with higher potential pollutants as described in MassDEP’s Stormwater Management Policy.

Standard 6: This Project will not result in any new point-source discharges and will not, therefore, discharge to or affect a critical area.

Standard 7: This Project will not result in an increase in impervious areas or point source discharges and therefore, Standards 1, 2, 3, 4, 5, 6, 7, 9, and 10 are generally not applicable. Compliance with Standard 8 is discussed below.

Standard 8: Erosion and sedimentation controls for construction and land disturbance activities have been incorporated into the Project design.

Standard 9: No structural stormwater treatment devices are warranted or proposed for this Project (because no increase in impervious surfaces will occur), therefore, an Operation and Maintenance Plan is not necessary.

Standard 10: No illicit discharges to a stormwater management system will occur.

Environmental Controls and Additional Permitting

Structure n is located within a hardscaped and landscaped public park. MWRA does not anticipate any earth disturbance as a result of the proposed work and will instruct the contractor to keep limited vehicle traffic to paved areas only. The proposed work at this site will be on and within the existing structure, which is in a hardscaped area, and construction will not produce sediment. As a result, MWRA does not anticipate installing erosion and sediment controls. However, should unanticipated conditions require any earth disturbance MWRA will instruct the contractor to install erosion and sediment controls around the work area prior to earth disturbance. The contractor will also be instructed to repair any damage to the park facilities to pre-construction condition. Necessary environmental and construction permits will be obtained prior to the start of work at each project area. Permit requirements will be followed as feasible and practical to maintain compliance with applicable regulations.
APPENDIX D

Affidavit of Service, List of Abutters, and Notification Form
AFFIDAVIT OF SERVICE
FOR ABUTTER NOTIFICATION

Under the Massachusetts Wetlands Protection Act
and Boston Wetlands Ordinance

I, _________________, hereby certify under pains and penalties of perjury that that at least one week prior to the public hearing, I gave notice to abutters in compliance with the second paragraph of Massachusetts General Laws Chapter 131, section 40, and the DEP Guide to Abutter Notification dated April 8, 1994, in connection with the following matter:

A Notice of Intent was filed under the Massachusetts Wetlands Protection Act and/or the Boston Wetlands Ordinance by MWRA _______________________________ for necessary maintenance and repair activities for MWRA Sewer Section 216, Station 11+12 (structure n) located at Nashua Street, Boston, MA ________________________________.

The Abutter Notification For, the list of abutters to whom it was given, and their addresses are attached to this Affidavit of Service.

Christine Walsh
Digitally signed by Christine Walsh
Date: 2022.05.25 14:18:40 -04'00'
Name

5/25/2022
Date
| PARCEL ID | PROPERTY ADDRESS   | CITY     | ZIPCODE | OWNER                     | ADDRESSEE                           | MAILING ADDRESS   | MAILING CITY | MAILING STATE | MAILING ZIPCODE |
|-----------|---------------------|----------|---------|---------------------------|-------------------------------------|-------------------|--------------|---------------|----------------|----------------|
NOTIFICATION TO ABUTTERS
BOSTON CONSERVATION COMMISSION

In accordance with the Massachusetts Wetlands Protection Act, Massachusetts General Laws Chapter 131, Section 40, and the Boston Wetlands Ordinance, you are hereby notified as an abutter to a project filed with the Boston Conservation Commission.

A. Massachusetts Water Resources Authority (MWRA) has filed a Notice of Intent with the Boston Conservation Commission seeking permission to alter an Area Subject to Protection under the Wetlands Protection Act (General Laws Chapter 131, section 40) and Boston Wetlands Ordinance.

B. The address of the lot where the activity is proposed is Nashua Street, Boston, MA.

C. The project involves necessary maintenance and repair activities for MWRA Sewer Section 216, Station 11+12 (structure n).

D. Copies of the Notice of Intent may be obtained by contacting the Boston Conservation Commission at CC@boston.gov.

E. Copies of the Notice of Intent may be obtained from Milan Horbaczewski by contacting them at Milan.Horbaczewski@mwra.com between the hours of 9 AM to 5 PM, Monday through Friday.

F. In accordance with the Chapter 20 of the Acts of 2021, the public hearing will take place virtually at https://zoom.us/j/6864582044. If you are unable to access the internet, you can call 1-929-205-6099, enter Meeting ID 686 458 2044 # and use # as your participant ID.

G. Information regarding the date and time of the public hearing may be obtained from the Boston Conservation Commission by emailing CC@boston.gov or calling (617) 635-3850 between the hours of 9 AM to 5 PM, Monday through Friday.

NOTE: Notice of the public hearing, including its date, time, and place, will be published at least five (5) days in advance in the Boston Herald.

NOTE: Notice of the public hearing, including its date, time, and place, will be posted on www.boston.gov/public-notices and in Boston City Hall not less than forty-eight (48) hours in advance. If you would like to provide comments, you may attend the public hearing or send written comments to CC@boston.gov or Boston City Hall, Environment Department, Room 709, 1 City Hall Square, Boston, MA 02201.

NOTE: If you would like to provide comments, you may attend the public hearing or send written comments to CC@boston.gov or Boston City Hall, Environment Department, Room 709, 1 City Hall Square, Boston, MA 02201.

NOTE: You also may contact the Boston Conservation Commission or the Department of Environmental Protection Northeast Regional Office for more information about this application or the Wetlands Protection Act. To contact DEP, call: the Northeast Region: (978) 694-3200.

NOTE: If you plan to attend the public hearing and are in need of interpretation, please notify staff at CC@boston.gov by 12 PM the day before the hearing.
APPENDIX E

Wetland Delineation Report
September 3, 2020

Re: MWRA structure n Wetland Delineation

Dear Sir or Madam:

On August 26, 2020 William E. Kuriger, Ph.D. delineated wetlands at the above referenced structure. The delineations were at the top of banks and annual high water locations, with some bordering vegetated wetlands (BVW) within the wetland flags at some locations. At this location portions of the upland were developed (concrete and stone), and the wetland within the delineation flags substratum was installed stone.

The flags 11-1 to 11-8 were used and placed at some locations on concrete or stone installations. The delineations were completed during drought conditions. United States Army Corps of Engineers Wetland Delineation Automated Forms version ADF_NCNE_v1.15. Copies of the forms are attached. A copy of the soil map for the site from the U.S.D.A. Natural Resources Service is also attached.

Sincerely,

William E. Kuriger, Ph.D., P.W.S., L.S.P.
Environmental Scientist
Certified Wetland Scientist (NH) 069
Senior Professional Wetland Scientist (SWS)
Licensed Site Professional (MA) 8104
Project/Site: MWRA ID n  City/County: Medford  State: MA  Sampling Date: 08/26/20
Applicant/Owner: MWRA  Sampling Point: 5 Upland
Investigator(s): W. E. Kuriger  Section, Township, Range: 
Landform (hillside, terrace, etc.): Side slope  Local relief (concave, convex, none): Concave  Slope %: 0-3
Soil Map Unit Name: Urban land, wet substratum  NWI classification: Riverine
Are Vegetation, Soil, or Hydrology significantly disturbed? Yes  (If no, explain in Remarks.)
Are "Normal Circumstances" present? Yes  (If needed, explain any answers in Remarks.)
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

<table>
<thead>
<tr>
<th>Hydrophytic Vegetation Present?</th>
<th>Yes</th>
<th>No</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydric Soil Present?</td>
<td>Yes</td>
<td>No</td>
<td>X</td>
</tr>
<tr>
<td>Wetland Hydrology Present?</td>
<td>Yes</td>
<td>No</td>
<td>X</td>
</tr>
</tbody>
</table>

Is the Sampled Area within a Wetland? Yes  No  X
If yes, optional Wetland Site ID: 

Remarks: (Explain alternative procedures here or in a separate report.)
Drought conditions present.

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicators (minimum of one is required; check all that apply)
- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (minimum of two required)
- Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- Marl Deposits (B15)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Saturation (A3)
- Secondary Indicators (minimum of two required)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes  No  X  Depth (inches): 
Water Table Present? Yes  No  X  Depth (inches): 
Saturation Present? Yes  No  X  Depth (inches): 
(includes capillary fringe)

Wetland Hydrology Present? Yes  No  X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
### Sampling Point:

<table>
<thead>
<tr>
<th>Tree Stratum (Plot size: 30)</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <em>Platanus occidentalis</em></td>
<td>50</td>
<td>Yes</td>
<td>FACW</td>
</tr>
<tr>
<td>2. <em>Malus sylvestris</em></td>
<td>15</td>
<td>Yes</td>
<td>UPL</td>
</tr>
<tr>
<td>3. <em>Liriodendron tulipifera</em></td>
<td>10</td>
<td>No</td>
<td>FACU</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sapling/Shrub Stratum (Plot size: 15)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td></td>
</tr>
<tr>
<td><strong>Total Cover</strong></td>
<td><strong>75</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Herb Stratum (Plot size: 5)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <em>Scutellaria nervosa</em></td>
<td>50</td>
</tr>
<tr>
<td>2. Grasses (unidentified)</td>
<td>20</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Woody Vine Stratum (Plot size: 30)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
</tr>
<tr>
<td><strong>Total Cover</strong></td>
<td><strong>70</strong></td>
</tr>
</tbody>
</table>

### Dominance Test worksheet:

- Number of Dominant Species: 2 (A)
- Total Number of Dominant Species Across All Strata: 4 (B)
- Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

### Prevalence Index worksheet:

<table>
<thead>
<tr>
<th>Total % Cover of:</th>
<th>Multiply by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBL species</td>
<td>0 x 1 = 0</td>
</tr>
<tr>
<td>FACW species</td>
<td>50 x 2 = 100</td>
</tr>
<tr>
<td>FAC species</td>
<td>50 x 3 = 150</td>
</tr>
<tr>
<td>FACU species</td>
<td>10 x 4 = 40</td>
</tr>
<tr>
<td>UPL species</td>
<td>15 x 5 = 75</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Column Totals:</th>
<th>(A)</th>
<th>(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>365</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Prevalence Index = B/A = 2.92
- **Problematic Hydrophytic Vegetation**
  - 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - 3 - Prevalence Index is ≤3.0
  - 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

### Hydrophytic Vegetation Indicators:

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Status</th>
<th>OBL</th>
<th>FACW</th>
<th>FAC</th>
<th>FACU</th>
<th>UPL</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>1</em> Rapid Test for Hydrophytic Vegetation</td>
<td>Yes</td>
<td>0</td>
<td>50</td>
<td>10</td>
<td>15</td>
<td>75</td>
</tr>
<tr>
<td><em>2</em> Dominance Test is &gt;50%</td>
<td>Yes</td>
<td>50</td>
<td>100</td>
<td>150</td>
<td>40</td>
<td>75</td>
</tr>
<tr>
<td><em>3</em> Prevalence Index is ≤3.0</td>
<td>Yes</td>
<td>2</td>
<td>100</td>
<td>150</td>
<td>40</td>
<td>75</td>
</tr>
<tr>
<td><em>4</em> Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)</td>
<td>Yes</td>
<td>50</td>
<td>100</td>
<td>150</td>
<td>40</td>
<td>75</td>
</tr>
</tbody>
</table>

### Definitions of Vegetation Strata:

- **Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
- **Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
- **Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
- **Woody vines** – All woody vines greater than 3.28 ft in height.

### Remarks:

(Includes photo numbers here or on a separate sheet.)

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*US Army Corps of Engineers*  
Northcentral and Northeast Region – Version 2.0
### Profile Description:
(Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<table>
<thead>
<tr>
<th>Depth (inches)</th>
<th>Matrix</th>
<th>Redox Features</th>
<th>Texture</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-12</td>
<td>10YR 5/3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12-16</td>
<td>10YR 6/4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

### Restrictive Layer (if observed):

- Type: ___________________________
- Depth (inches): ___________________
- Hydric Soil Present? Yes __ No X

### Remarks:
This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)
WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: MWRA ID n
Applicant/Owner: MWRA
Investigator(s): W. E. Kuriger
Landform (hillside, terrace, etc.): Side slope
Local relief (concave, convex, none): Concave

Are Vegetation, Soil, or Hydrology significantly disturbed? Yes _ No _
Are "Normal Circumstances" present? Yes _ No _
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

<table>
<thead>
<tr>
<th>Hydrophytic Vegetation Present?</th>
<th>Yes _ No _</th>
<th>Is the Sampled Area within a Wetland?</th>
<th>Yes _ No _</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydric Soil Present?</td>
<td>Yes _ No _</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wetland Hydrology Present?</td>
<td>Yes _ No _</td>
<td>If yes, optional Wetland Site ID:</td>
<td></td>
</tr>
</tbody>
</table>

Remarks: (Explain alternative procedures here or in a separate report.)
Drought conditions present. Solid installed rock under river water.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)
- _ Surface Water (A1)
- _ High Water Table (A2)
- _ Saturation (A3)
- _ Water Marks (B1)
- _ Sediment Deposits (B2)
- _ Drift Deposits (B3)
- _ Algal Mat or Crust (B4)
- _ Iron Deposits (B5)
- _ Inundation Visible on Aerial Imagery (B7)
- _ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (minimum of two required)
- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations:

<table>
<thead>
<tr>
<th>Surface Water Present?</th>
<th>Yes _ No _</th>
<th>Depth (inches):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Table Present?</td>
<td>Yes _ No _</td>
<td>Depth (inches):</td>
</tr>
<tr>
<td>Saturation Present?</td>
<td>Yes _ No _</td>
<td>Depth (inches):</td>
</tr>
<tr>
<td>(includes capillary fringe)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Wetland Hydrology Present? Yes _ No _

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
### VEGETATION – Use scientific names of plants.

**Sampling Point:** 5 Wetland

<table>
<thead>
<tr>
<th>Tree Stratum (Plot size: 30)</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
<th>Dominance Test worksheet:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>None</strong></td>
<td></td>
<td></td>
<td></td>
<td>Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)</td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
<td>Total Number of Dominant Species Across All Strata: 2 (B)</td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
<td>Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sapling/Shrub Stratum (Plot size: 15)</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
<th>Prevalence Index worksheet:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>Amorpha fruticosa</strong></td>
<td>25</td>
<td>Yes</td>
<td>FACW</td>
<td>Total % Cover of: 50 x 1 = 50</td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
<td>FACW species 25 x 2 = 50</td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
<td>FAC species 0 x 3 = 0</td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
<td>FACU species 0 x 4 = 0</td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
<td>UPL species 0 x 5 = 0</td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
<td>Column Totals: 75 (A)  100 (B)</td>
</tr>
<tr>
<td>7.</td>
<td></td>
<td></td>
<td></td>
<td>Prevalence Index = B/A = 1.33</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Herb Stratum (Plot size: 5)</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
<th>Hydrophytic Vegetation Indicators:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>Typha latifolia</strong></td>
<td>50</td>
<td>Yes</td>
<td>OBL</td>
<td>1 - Rapid Test for Hydrophytic Vegetation</td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
<td>X 2 - Dominance Test is &gt;50%</td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
<td>X 3 - Prevalence Index is ≤3.0 (^1)</td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
<td>4 - Morphological Adaptations (^2) (Provide supporting data in Remarks or on a separate sheet)</td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
<td>Problematic Hydrophytic Vegetation (^2) (Explain)</td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
<td>(^1)Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</td>
</tr>
<tr>
<td>7.</td>
<td></td>
<td></td>
<td></td>
<td>(^2)Definitions of Vegetation Strata:</td>
</tr>
<tr>
<td>8.</td>
<td></td>
<td></td>
<td></td>
<td><strong>Tree</strong> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</td>
</tr>
<tr>
<td>9.</td>
<td></td>
<td></td>
<td></td>
<td><strong>Sapling/shrub</strong> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.</td>
</tr>
<tr>
<td>10.</td>
<td></td>
<td></td>
<td></td>
<td><strong>Herb</strong> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</td>
</tr>
<tr>
<td>11.</td>
<td></td>
<td></td>
<td></td>
<td><strong>Woody vines</strong> – All woody vines greater than 3.28 ft in height.</td>
</tr>
<tr>
<td>12.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Woody Vine Stratum (Plot size: 30)</th>
<th>Absolute % Cover</th>
<th>Dominant Species?</th>
<th>Indicator Status</th>
<th>Hydrophytic Vegetation Present?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
<td>Yes X</td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
<td>No X</td>
</tr>
</tbody>
</table>

**Remarks:** (Include photo numbers here or on a separate sheet.)
### Profile Description:

(Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<table>
<thead>
<tr>
<th>Depth (inches)</th>
<th>Matrix</th>
<th>Redox Features</th>
<th>Texture</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-20</td>
<td></td>
<td>Polyvalue Below Surface (S8) (LRR R, MLRA 149B)</td>
<td>Solid installed rock</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Thin Dark Surface (S9) (LRR R, MLRA 149B)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Chroma Sands (S11) (LRR K, L)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>Loamy Mucky Mineral (F1) (LRR K, L)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-10</td>
<td></td>
<td>Loamy Gleyed Matrix (F2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11-20</td>
<td></td>
<td>Depleted Matrix (F3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21-30</td>
<td></td>
<td>Redox Dark Surface (F6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31-40</td>
<td></td>
<td>Depleted Dark Surface (F7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41-50</td>
<td></td>
<td>Redox Depressions (F8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>51-60</td>
<td></td>
<td>Marl (F10) (LRR K, L)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>61-70</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>71-80</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;80</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.
2. Location: PL=Pore Lining, M=Matrix.

### Hydric Soil Indicators:
- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

### Indicators for Problematic Hydric Soils:
- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thiny Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

3. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

### Restrictive Layer (if observed):
- Type: Rock
- Depth (inches): ___________________________
- Hydric Soil Present? Yes  x  No

### Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)
The soil surveys that comprise your AOI were mapped at 1:25,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:  
Coordinate System:  Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Norfolk and Suffolk Counties, Massachusetts
Survey Area Data:  Version 16, Jun 11, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.
Date(s) aerial images were photographed:  Sep 11, 2019—Oct 5, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.
## Map Unit Legend

<table>
<thead>
<tr>
<th>Map Unit Symbol</th>
<th>Map Unit Name</th>
<th>Acres in AOI</th>
<th>Percent of AOI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Water</td>
<td>6.7</td>
<td>18.1%</td>
</tr>
<tr>
<td>602</td>
<td>Urban land, 0 to 15 percent slopes</td>
<td>1.7</td>
<td>4.6%</td>
</tr>
<tr>
<td>603</td>
<td>Urban land, wet substratum, 0 to 3 percent slopes</td>
<td>28.4</td>
<td>77.3%</td>
</tr>
<tr>
<td><strong>Totals for Area of Interest</strong></td>
<td></td>
<td><strong>36.8</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>
APPENDIX F

NOI Fee Transmittal Form and Copy of Fee Checks
Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands  
NOI Wetland Fee Transmittal Form  
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

A. Applicant Information

1. Location of Project:
   | Nashua Street | Boston |
   | a. Street Address | b. City/Town |
   | | |
   | 26423 | $237.50 |
   | c. Check number | d. Fee amount |

2. Applicant Mailing Address:
   | John Colbert |
   | a. First Name | b. Last Name |
   | | |
   | Massachusetts Water Resources Authority (MWRA) | |
   | c. Organization | |
   | 100 First Avenue, Building 39 | |
   | d. Mailing Address | |
   | | |
   | Boston | MA | 02129 |
   | e. City/Town | f. State | g. Zip Code |
   | | | |
   | John.Colbert@MWRA.com | |
   | h. Phone Number | i. Fax Number | j. Email Address |

3. Property Owner (if different):
   | Priscilla Geigis |
   | a. First Name | b. Last Name |
   | | |
   | Deputy Commissioner of the Department of Conservation and Recreation | |
   | c. Organization | |
   | 251 Causeway Street, Suite 600 | |
   | d. Mailing Address | |
   | | |
   | Boston | MA | 02114 |
   | e. City/Town | f. State | g. Zip Code |
   | | | |
   | priscilla.geigis@mass.gov | |
   | h. Phone Number | i. Fax Number | j. Email Address |

B. Fees

Fee should be calculated using the following process & worksheet. Please see Instructions before filling out worksheet.

Step 1/Type of Activity: Describe each type of activity that will occur in wetland resource area and buffer zone.

Step 2/Number of Activities: Identify the number of each type of activity.

Step 3/Individual Activity Fee: Identify each activity fee from the six project categories listed in the instructions.

Step 4/Subtotal Activity Fee: Multiply the number of activities (identified in Step 2) times the fee per category (identified in Step 3) to reach a subtotal fee amount. Note: If any of these activities are in a Riverfront Area in addition to another Resource Area or the Buffer Zone, the fee per activity should be multiplied by 1.5 and then added to the subtotal amount.

Step 5/Total Project Fee: Determine the total project fee by adding the subtotal amounts from Step 4.

Step 6/Fee Payments: To calculate the state share of the fee, divide the total fee in half and subtract $12.50. To calculate the city/town share of the fee, divide the total fee in half and add $12.50.
Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

NOI Wetland Fee Transmittal Form
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

B. Fees (continued)

<table>
<thead>
<tr>
<th>Step 1/Type of Activity</th>
<th>Step 2/Number of Activities</th>
<th>Step 3/Individual Activity Fee</th>
<th>Step 4/Subtotal Activity Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utility structure maintenance</td>
<td>1</td>
<td>$500</td>
<td>$500</td>
</tr>
</tbody>
</table>

Step 5/Total Project Fee: $500

Step 6/Fee Payments:

- **Total Project Fee:** $500
  - a. Total Fee from Step 5
  - b. 1/2 Total Fee less $12.50
  - c. 1/2 Total Fee plus $12.50

City/Town share of filing Fee: $262.50

C. Submittal Requirements

a.) Complete pages 1 and 2 and send with a check or money order for the state share of the fee, payable to the Commonwealth of Massachusetts.

Department of Environmental Protection
Box 4062
Boston, MA 02211

b.) **To the Conservation Commission:** Send the Notice of Intent or Abbreviated Notice of Intent; a copy of this form; and the city/town fee payment.

**To MassDEP Regional Office** (see Instructions): Send a copy of the Notice of Intent or Abbreviated Notice of Intent; a copy of this form; and a copy of the state fee payment. (E-filers of Notices of Intent may submit these electronically.)