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January 13, 2023

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS  
ON THE  
EXPANDED ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME : MWRA Section 22 and 21 Water Pipeline Rehabilitation Project  
PROJECT MUNICIPALITY : Boston, Quincy, Milton  
PROJECT WATERSHED : Boston Harbor  
EEA NUMBER : 16633  
PROJECT PROPONENT : Massachusetts Water Resources Authority (MWRA)  
DATE NOTICED IN MONITOR : December 7, 2023

Pursuant to the Massachusetts Environmental Policy Act (MEPA; M.G.L. c. 30, ss. 61-62L) and Section 11.06 of the MEPA Regulations (301 CMR 11.00), I have reviewed the Expanded Environmental Notification Form (EENF) and hereby determine that this project requires the submission of an Environmental Impact Report (EIR). In accordance with Section 11.06(8) of the MEPA regulations, the Proponent requested that I allow a Single EIR to be submitted in lieu of the usual two-stage Draft and Final EIR process. I hereby grant the request to file a Single EIR, which the Proponent should submit in accordance with the Scope included in this Certificate.

Project Description

As described in the EENF, the MWRA proposes to rehabilitate portions of drinking water pipe (Sections 22 and 21) in Boston, Quincy, and Milton to restore them to full function. Three methods of construction are proposed:

- Remove and replace: This method will excavate a 10-foot-wide trench and remove the existing pipeline, then install a new pipe of the same diameter in the same alignment. At appurtenances

such as valves and manholes, the excavation will widen to approximately 12 feet by 12 feet. Once the new pipe is installed, all excavations will be backfilled and restored to existing grades.

- Clean and line: This method will require approximately 12-foot-by-12-foot access pits at bends in the existing pipeline or at appurtenances. A scraper will be pulled through the existing pipe to clean it, then another machine will travel through the pipe from access pit to access pit to line the pipe with a thin layer of cement mortar. Once lining is complete, the excavation will be backfilled and restored to existing grades.
- Slipline: This method will require approximately 12-foot-by-30-foot access pits at bends in the existing pipeline or at appurtenances. A scraper will be pulled through the existing pipe. Then short segments of new steel pipe will be inserted into the existing pipe and joined by welding the pipe joints internally. The annular space between the new pipe and the host pipe will be filled with a grout mixture to secure the new pipe in place and provide corrosion protection and the interior of the pipe will also be cement mortar lined to provide corrosion protection. Once grouting and cement mortar lining is complete, the excavation will be backfilled and restored to existing grades.

As described in the EENF, Section 21 of the pipeline was found to be structurally sound but heavily corroded on the interior of the pipe. To minimize impacts and cost and maximize hydraulic performance, this pipe will be cleaned and lined. The EENF divides Section 22 of the pipeline into four segments and states that depending on the condition of the existing pipe and potential for environmental impacts in each segment, one of the three construction methods described above will be used.

- Segment 1: This segment is located within existing roadways. Due to its extensive leak history, this segment will be removed and replaced.
- Segment 2: This segment is located within salt marsh and the ACEC. With the exception of the crossing under the Neponset River, this segment will be sliplined with a 40-inch steel pipe. The approximately 600-linear-foot subsegment under the Neponset River was determined to be in good condition and no work is proposed.
- Segment 3: This segment is located partially within salt marsh. To minimize wetland impacts during construction and future maintenance, the MWRA proposes to install a new 48-inch-diameter pipe along a new alignment within the existing roadway layout of Granite Avenue which includes other utilities. Impacts within the limits of construction from this installation will be the same as the “remove and replace” method. The existing pipe that runs through wetlands behind the MassDOT storage yard and the salt marsh between Granite Avenue and Interstate-93 (I-93) will be capped, filled with grout, and left in place, avoiding potential wetland impacts for this segment.
- Segment 4: This segment is located primarily within existing roadways and is proposed to be cleaned and lined. Upon further internal inspection by the contractor after the pipe has been cleaned, if significant corrosion is found, short subsegments may be removed and replaced in lieu of cement mortar lining.

### Project Site

As described in the EENF, Section 22 is a critical water pipeline that delivers drinking water to, and is located in, Boston, Milton, and Quincy. Section 22 was originally constructed in 1950 and is approximately 16,000 feet long and composed primarily of 48-inch-diameter unlined steel pipe with coupling joints. A 650-foot-long portion of Section 22 that runs under the Neponset River is constructed

of 52-inch diameter concrete-lined steel pipe with welded joints. Section 21 is composed of an approximately 3,600-foot-long, 24-inch-diameter cast iron pipe in Milton and Quincy that was originally constructed in the early 1900s.

Section 21 of the pipeline is located entirely within existing roadways amongst residential and commercial land uses. It is not located in an Area of Critical Environmental Concern (ACEC) and there are no waterways, wetland resource areas, or open space or recreational resources adjacent to the pipeline. According to Massachusetts Natural Heritage and Endangered Species Program (NHESP) Atlas (August 1, 2017, 14<sup>th</sup> Edition), the site is not located within an area of Estimated Habitats of Rare Wildlife or an area of Priority Habitats of Rare Species.

The EENF describes the four segments of Section 22 individually.

- Segment 1: *Dorchester Lower Mills to MBTA Tracks*. Along Adams Street, this segment passes through residential, commercial, and mixed-use properties. On Butler Street and eastward, this segment crosses the Cedar Grove Cemetery and is located within developed open space and some forested land in Boston.
- Segment 2: *ACEC Marsh to MassDOT Yard*. This segment crosses the Neponset Trail and the right-of-way for the Massachusetts Bay Transportation Authority's (MBTA's) Mattapan Trolley and enters the Neponset River Reservation (part of the Neponset River Estuary ACEC). It crosses through salt marsh and under the Neponset River, then travels along the ramp for I-93 southbound. It crosses the ramp and I-93 and ends near a MassDOT storage yard in Milton.
- Segment 3: *MassDOT Yard to Hope Avenue*. This segment travels along the edge of the MassDOT yard and adjacent parking lot, and past the American Legion Heritage Hall in Milton. This segment passes through salt marsh and forested areas and behind industrial land uses.
- Segment 4: *Hope Avenue to Furnace Brook Parkway*. This segment of Section 22 travels across the edge of the Furnace Brook Golf Club in Quincy, and is located primarily within residential areas, with a few locations in forested areas or developed open space.

Section 22 crosses four waterways including two unnamed tidal creeks, the Neponset River, and Furnace Brook. The project area contains wetland resource areas including Salt Marsh, Bordering Vegetated Wetlands (BVW), Isolated Vegetated Wetlands (IVW), Inland Bank, Land Under Water (LUW), Bordering Land Subject to Flooding (BLSF), Lands Subject to Coastal Storm Flowage (LSCSF), Riverfront Area (RFA), and associated buffer zones. The project corridor includes mapped areas that are inundated during a 100-year storm as mapped on the Federal Emergency Management Act (FEMA) Flood Insurance Rate Maps (FIRMs). Portions of Section 22 are located with the Neponset River Estuary ACEC. The EENF lists four open space and recreational resources along Section 22 including the Neponset River Reservation (Boston and Milton), Presidents Golf Course (Milton), Andrews Park (Milton), and the Furnace Brook Golf Course (Milton). Based on the Massachusetts Historical Commission's (MHC) Massachusetts Cultural Resources Information System (MACRIS) the project corridor contains several historic and archaeological sites previously recorded in the Inventory of Historic and Archaeological Assets of the Commonwealth.

The project site is located within 8 Environmental Justice (EJ) populations characterized by Minority and within one mile of 54 EJ populations characterized by Minority; Income; Minority and Income; Minority and English Isolation; and Minority, Income and English Isolation. The site is located

within five miles of EJ populations designated as Minority; Income; English Isolation; Minority and Income; and Minority, Income and English Isolation. As described below, the EENF identified the “Designated Geographic Area” (DGA) for the project as 1 mile around EJ populations, included a review of potential impacts and benefits to the EJ populations within this DGA, and described public involvement efforts undertaken to date.

### Environmental Impacts and Mitigation

According to the EENF, potential environmental impacts associated with the project include temporary alteration of 43,910 sf (1.01 acres) of Salt Marsh, 9,950 sf of LSCSF, 8,070 sf of BLSF, and 510 sf of RFA. There will be temporary wetland impacts within the Neponset River Estuary ACEC. Approximately 6,400 linear feet of Segment 2, Section 22, passes through the estuary ACEC which is considered an Outstanding Resource Water (ORW). Within a 500-ft radius of the project segments, 35 hazardous waste/disposal sites were identified using the Massachusetts Department of Environmental Protection (MassDEP) Bureau of Waste Site Cleanup (BWSC) online database. The presence of a state-listed disposal site indicates that a release of hazardous materials has been reported to the MassDEP. Of the 35 sites, 29 are listed in the EENF that have the potential for impacts to environmental conditions along the pipeline. Of the known historic and archaeological resources within the project corridor, two resources contain historic features within or along the pipeline that have the potential to be impacted. Potential construction period impacts include traffic, an increase in ambient noise levels, fugitive dust, and emissions from construction vehicles.

The project will minimize and mitigate environmental impacts by relocating a portion of Section 22 out of Salt Marsh. Impacts to other wetland resource areas will be temporary and will be restored upon completion of work using the vegetation layer and subsoil excavated during construction. Restoration areas will be planted with native vegetation and monitored in accordance with permit conditions. Soil erosion and sedimentation controls will be installed between work areas and wetland resource areas and temporary construction matting will be used within wetland areas to prevent rutting and provide stable pads for equipment operation. Sediment controls including filter bags set on top of stone and surrounded by erosion controls will be used during dewatering. Any soil encountered during construction with oil and/or hazardous material above the Massachusetts Contingency Plan (MCP) Reportable Concentrations will be managed appropriately in accordance with the applicable state and federal regulations. As necessary, a Licensed Site Professional (LSP) will be onsite. To mitigate traffic impacts during construction a Traffic Management Plan (TMP) will be developed.

### Jurisdiction and Permitting

The project is subject to the preparation of a Mandatory EIR pursuant to 301 CMR 11.03(3)(a)1.a. because it requires Agency Actions and involves the alteration of one or more acres of salt marsh or bordering vegetated wetlands. Additionally, the project exceeds the Environmental Notification Form (ENF) threshold at 301 CMR 11.03(11)(b) for any project of ½ or more acres within a designated ACEC, unless the project consists solely of one single family dwelling. The project is also located within a DGA around an EJ Population, and therefore an EIR is required pursuant to 301 CMR 11.06(7)(b). Additionally, the project exceeds the Environmental Notification Form (ENF) threshold at 301 CMR 11.03(11)(b) for any project of ½ or more acres within a designated ACEC, unless the project consists solely of one single family dwelling. The project requires a Highway Access Permit from the Massachusetts Department of Transportation (MassDOT), a Construction and Access Permit from the Department of Conservation and Recreation (DCR), a License to Enter from the MBTA, and a Section

401 Water Quality Certificate from MassDEP. Comments from the MassDEP Waterways Program indicate that the filing does not include sufficient information to determine if the work may be authorized as a Minor Project Modification and indicates that one portion of the project may require a new Chapter 91 (c.91) License.

The project will require Orders of Conditions (OOCs) from the Boston and Quincy Conservation Commissions and potentially the Milton Conservation Commission (or in the case of an appeal, a Superseding Order of Conditions (SOC) from MassDEP). The project requires a Pre-Construction Notification (PCN) to the U.S. Army Corps of Engineers (USACOE) under Section 404 of the Clean Water Act (CWA), National Pollutant Discharge Elimination System (NPDES) from the Environmental Protection Agency (EPA) and Federal Consistency Review by the Office of Coastal Zone Management (CZM).

Because the project is being undertaken by the Massachusetts Water Resource Authority (MWRA), an Agency as defined in MEPA regulations, MEPA jurisdiction is broad in scope and extends to all aspects of the project that may cause Damage to the Environment.

#### Request for Single EIR

The MEPA regulations at 301 CMR 11.06(8) indicate that a Single EIR may be allowed provided I find that the EENF:

- a) describes and analyzes all aspects of the project and all feasible alternatives, regardless of any jurisdictional or other limitation that may apply to the Scope;
- b) provides a detailed baseline in relation to which potential environmental impacts and mitigation measures can be assessed; and,
- c) demonstrates that the planning and design of the project use all feasible means to avoid potential environmental impacts.

For any Project for which an EIR is required in accordance with 301 CMR 11.06(7)(b), I must also find that the EENF:

- d) describes and analyzes all aspects of the Project that may affect Environmental Justice Populations located in whole or in part within the Designated Geographic Area around the Project; describes measures taken to provide meaningful opportunities for public involvement by Environmental Justice Populations prior to filing the expanded ENF, including any changes made to the Project to address concerns raised by or on behalf of Environmental Justice Populations; and provides a detailed baseline in relation to any existing unfair or inequitable Environmental Burden and related public health consequences impacting Environmental Justice Populations in accordance with 301 CMR 11.07(6)(n)1.

Consistent with this request, the EENF was subject to an extended comment period under 301 CMR 11.05(8).

#### Review of the EENF

The EENF included a project description, an alternatives analysis, existing and proposed conditions plans, and estimates of project-related impacts. It identifies measures to avoid, minimize and

mitigate environmental and public health impacts. It also included a description of measures taken to enhance public involvement by EJ populations and a baseline assessment of any existing unfair or inequitable Environmental Burden and related public health consequences impacting EJ Populations in accordance with 301 CMR 11.07(6)(n)1. Comments on the EENF request additional information regarding post construction monitoring of salt marsh restoration and adaptive management actions that may be necessary if the salt marsh does not recover to pre-construction conditions.

### *Alternatives Analysis*

The DEIR describes alternative locations and alternative construction methods for both Section 21 and Section 22 of the project. Conceptual plans are provided for each alternative. As described above the alternative construction methods include remove and replace, clean and line, and slipline. The MWRA asserts that the remove and replace alternative creates the most disturbance as it requires excavation of the entire length of pipe and was therefore avoided where possible.

The Section 21 pipe is structurally sound with no substantial pipe corrosion and the DEIR indicates that the least disruptive and cost effective alternative is to clean and line the existing pipe. The MWRA indicates that sliplining would result in a reduced pipe size and the resulting hydraulic capacity would not be adequate to support current requirements. As indicated above, relocating or replacing the entire pipeline would result in new disturbance along a new corridor and/or excavation along the entire length of the current alignment and was also dismissed.

Alternatives to the Section 22 pipeline were discussed by segment. As described in the EENF, Segment 1 has an extensive leak history and cleaning and lining would not provide sufficient service life for this segment. Sliplining Segment 1 was also considered but hydraulic capacity would not meet the MWRA's requirements and therefore, full replacement is proposed. The EENF indicates that it is not possible to remove and replace the portion of pipe under the MBTA tracks and this portion will be sliplined.

The EENF states that cleaning and lining Segment 2 was also dismissed because the pipe is not structurally sound. Sliplining was found to be hydraulically adequate and would minimize impacts to the Salt Marsh because excavation would only be required at periodic access pits. MWRA also considered alternative locations for Segment two including relocation along the Neponset River Greenway and installation of a new pipe via horizontal directional drilling (HDD). Relocation to the Neponset River Greenway was dismissed because the new alignment would result in significantly more ground disturbance within 100-ft of Salt Marsh and would not entirely avoid impacts with the marsh. The relocation would also require jacking and boring a new crossing under the Neponset River which would be costly to construct and would require a new c.91 License. In addition, the Neponset River Reservation is protected under Article 97 and the new pipeline could be considered a change in use that would require review by the Executive Office of Energy and Environmental Affairs (EOEEA) and an act of the legislature. As stated in the EENF, the HDD Alternative was dismissed because it does not provide adequate hydraulic capacity. In addition, it would be costly to construct and, as shown in conceptual plans, would require an extensive pipe layout area across multiple sections of Salt Marsh, which would increase impacts within the ACEC.

The MWRA considered cleaning and line Segment 3; however, there was historically a major leak on I-93 and that subsegment would need to be sliplined instead. Sliplining the entire pipe was also considered but this would reduce the service life of the pipeline in comparison to replacing the pipe and

would still incur salt marsh impacts. The EENF states that by capping and abandoning Segment 3 of the existing pipeline that runs through Salt Marsh and installing new pipe beginning at the northwest corner of the MassDOT Yard and continuing within Granite Avenue, the project will avoid approximately 5,100 sf of wetland impacts and will provide better access for future pipe operation and maintenance.

The EENF states Segment 4 of the pipeline has reached the end of its useful life but was found to be in reasonable condition. The MWRA determined that the cost and impacts of full removal and replacement (or realignment) were not warranted and that sliplining was also not cost effective and would decrease hydraulic performance. Therefore, the Preferred Alternative for this section is to clean and line to restore the pipe to full function.

Comments from MassDEP state that the Alternatives Analysis presented in the EENF is at a level consistent for permitting and does a thorough job of explaining why the different constructions methods for each pipeline section should be implemented. MassDEP indicates in comments that it supports the MWRA's conclusion that impacts to wetlands will be minimized by the chosen alternatives including the methodologies for stream crossings.

### *Environmental Justice*

As noted above, the project site is located within 8 Environmental Justice (EJ) populations characterized by minority and within one mile of 54 EJ populations characterized by Minority; Income; Minority and Income; Minority and English Isolation; and Minority, Income and English Isolation. The site is located within five miles of EJ populations designated as Minority; Income; English Isolation; Minority and Income; and Minority, Income and English Isolation. Within the census tracts containing the above EJ populations within 1 mile of the project site, the following languages are identified as those spoken by 5% or more of residents who also identify as not speaking English very well: Chinese, French Creole, Spanish or Spanish Creole, and Vietnamese. The corresponding languages identified for a 5 mile radius around the project site are as follows: African languages, Chinese, French Creole, Portuguese or Portuguese Creole, Russian, Spanish or Spanish Creole, and Vietnamese.

Effective January 1, 2022, all new projects in "Designated Geographic Areas" ("DGA," as defined in 301 CMR 11.02, as amended) around EJ populations are subject to new requirements imposed by the Chapter 8 of the Acts of 2021: *An Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy* (the "Climate Roadmap Map") and amended MEPA regulations at 301 CMR 11.00.<sup>1</sup> Two related MEPA protocols—the MEPA Public Involvement Protocol for Environmental Justice Populations (the "MEPA EJ Public Involvement Protocol") and MEPA Interim Protocol for Analysis of project Impacts on Environmental Justice Populations (the "MEPA Interim Protocol for Analysis of EJ Impacts")—are also in effect for new projects filed on or after January 1, 2022.<sup>2</sup> Under the new regulations and protocols, all projects located in a DGA around one or more EJ populations must take steps to enhance public involvement opportunities for EJ populations, and must submit analysis of impacts to such EJ populations in the form of an EIR.

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<sup>1</sup> MEPA regulations have been amended to implement Sections 55-60 of the Climate Roadmap Act, and took effect on December 24, 2021. More information is available at <https://www.mass.gov/service-details/information-about-upcoming-regulatory-updates>.

<sup>2</sup> Available at <https://www.mass.gov/service-details/eea-policies-and-guidance>.

The EENF indicates that the DGA for the project is 1 mile, and states that EJ populations within this DGA are not likely to be negatively impacted by the project because the majority of project impacts are limited to the construction phase and would be temporary. The EENF also indicates a variety of public benefits that the project is asserted to offer for EJ populations, including providing a reliable source of clean drinking water. The EENF described public involvement activities conducted prior to filing, including advance notification of the project (the “EJ Screening Form”) circulated to a list of community-based organizations (CBOs) and tribes/indigenous organizations (the “EJ Reference List”) provided by the MEPA Office. The form was translated into the following languages: Chinese, French Creole, Spanish, and Vietnamese and attached to the notification email. Notice of the MEPA remote consultation session held at 7:00 PM on December 7, 2022 and in-person site visit held on December 19, 2022 at 10:00 AM, was translated and distributed to the EJ Reference List. Oral interpretation services were offered for the MEPA remote consultation session and site visit in all languages; no requests for translation were received prior to the meetings, but interpreters were available at both meetings. The MWRA also created a project web page (<https://www.mwra.com/projects/water/sec21-22/sec21-22-update.html>) with project information including the EJ Screening Form and translated versions which will be updated as the project design progresses and during the construction phase. The Single EIR should describe a public involvement plan that the project intends to follow for EJ populations within the DGA for the remainder of the MEPA review process.

The EENF contained a baseline assessment of any existing unfair or inequitable Environmental Burden and related public health consequences impacting EJ Populations in accordance with 301 CMR 11.07(6)(n)1. and the MEPA Interim Protocol for Analysis of EJ Impacts. According to the EENF, the data surveyed show some indication of an existing “unfair or inequitable” burden impacting the identified EJ populations. Specifically, the EENF notes that the DPH EJ Tool identifies census tracts with and municipalities in which the EJ populations as exhibiting “vulnerable health EJ criteria”; this term is defined in the DPH EJ Tool to include any one of four environmentally related health indicators that are measured to be 110% above statewide rates based on a five-year rolling average.<sup>3</sup> Specifically, the City of Boston is identified as exhibiting “vulnerable health EJ criteria” for Childhood Asthma and census tracts within Boston and Quincy are identified as exhibiting “vulnerable health EJ criteria” for Elevated Blood Lead Prevalence and Low Birth Weight. In addition, the EENF indicates that the following sources of potential pollution exist within the identified EJ populations, based on the mapping layers available in the DPH EJ Tool:

- Major air and waste facilities: 7 (Boston 3, Quincy 4)
- M.G.L. c. 21E sites: 14 (Boston 6, Quincy 8)
- “Tier II” Toxics Release Inventory Site: 17 (Boston 4, Quincy 13)
- MassDEP Sites with AULs: 43 (Boston 18, Quincy 25)
- MassDEP Public Water Suppliers: 3
- Underground Storage Tanks: 29 (Boston 8, Quincy 21)
- Road Infrastructure: 2
- MBTA Bus and Rapid Transit: Boston - 1 Rapid Transit, 1 Commuter Rail, 7 Buses  
Quincy – 1 Rapid Transit, 1 Commuter Rail, 5 Buses
- Energy Generation and Supply: 1 (Quincy Biomass Plant)

<sup>3</sup> See <https://matracking.ehs.state.ma.us/Environmental-Data/ej-vulnerable-health/environmental-justice.html>. Four vulnerable health EJ criteria are tracked in the DPH EJ Viewer, of which two (heart attack hospitalization and childhood asthma) are tracked on a municipal level, and two (childhood blood lead, and low birth weight) are tracked on a census tract level.



As indicated in the EENF, the project impacts are anticipated to be temporary in nature and related to construction activities. The EENF notes that these impacts will be intermittent and will not be in front of any single location for an extended period of time. As described further below, construction contractors will comply with anti-idling regulations and all diesel-powered non-road construction equipment will have EPA-verified (or equivalent) emission control devices to limit construction-phase air quality impacts. Construction noise will be minimized by ensuring that equipment is functioning properly and equipped with noise-reducing features. Typical work hours will be between 7 a.m. and 5 p.m. Monday through Friday. The Single EIR should supplement analysis of EJ impacts in accordance with the Scope.

### *Wetland Resources*

Wetland resource areas were delineated within the project site in December of 2019 and include areas of Salt Marsh, BVW, IVW, Bank, BLSF, LSCSF, RFA and associated buffer zones of resource areas. The EENF indicates that the Section 22 crosses eight wetlands, four waterways (including the Neponset River, Furnace Brook and two unnamed tidal creeks), five locations jurisdictional under c.91. No wetland resource areas are present in Section 21 or Segment 1 of Section 22. The EENF notes, and comments from MassDEP concur, that the project is a replacement of an existing and lawfully located facility used in the service of the public and used to provide water services, and therefore does not strictly require the filing a Notice of Intent (NOI) in accordance with the exemption at 310 CMR10.02(2)(a)2.; however, the MWRA intends to file NOIs with the Boston, Milton, and Quincy Conservation Commissions to ensure that the project is designed and constructed in a manner that minimized wetland impacts to the maximum extent feasible.

As indicated above, wetland impacts include 43,910 sf of Salt Marsh (40,330 sf of temporary construction mat impacts and 3,580 sf for temporary pipe access pits); 9,950 sf of LSCSF (3,490 sf from pipe access pits and 6,310 sf from trenching); 8,070 sf of BLSF (1,690 sf from pipe access pits and 6,380 from trenching) and 510 sf of RFA. The EENF states that all impacts are located within the existing pipe alignment or within an existing pipeline access road. In addition to the 12-ft-by-30-ft pipe access pits, 16-ft-wide crane mats will be placed at each edge of a pit located within a wetland resource area and along an existing access path through the Salt Marsh in Segment 2. The EENF states that at access pit locations within Salt Marsh, the vegetation layer and subsoil will be set aside with layers in separate piles, and upon completion of work the subsoils will be put back with layers intact and the vegetation layer reestablished by plantings. At completion of the project, temporary impact areas will be restored and permanently stabilized at the earliest practicable date. Appropriate plantings will be provided in the salt marsh and other areas disturbed by construction as necessary to restore native vegetation. The work areas within salt marsh will be monitored for a minimum of two growing seasons and/or as required by project permits to confirm that all areas have been fully restored.

Comments from MassDEP, CZM, and the Division of Marine Fisheries (DMF) indicate the need for additional information related to post-construction monitoring and adaptive management, should the post-construction Salt Marsh not recover to an acceptable level compared to pre-construction conditions. Comments from DMF and CZM also indicate that work on the Salt Marsh outside of the growing season would help to minimize potential impacts. Comments from MassDEP indicate that reestablishment of Salt Marsh vegetation is best done during the spring planting season to avoid possible impacts from frost or ice during the fall planting season. The Single EIR should provide additional details related to Salt Marsh restoration and monitoring as discussed in comments and as outlined in the Scope.

*Area of Critical Environmental Concern/Article 97*

Approximately 6,400 lf of Segment 2 in Section 22, passes through the Neponset River Estuary ACEC which was designated on March 27, 1995. The portion of the pipe located within the ACEC was installed in the 1950's. As noted above, there will be temporary impacts associated with access pits and construction mats which will be limited to the existing alignment of the pipeline and will be restored upon completion of work. Comments from MassDEP indicate that the work in wetlands in the ACEC, which is an ORW, will be able to be permitted under the 401 Water Quality Regulation pursuant to 314 CMR 9.06 (3)(a) which allow for public water supplier to maintain, operate, and improve the waterworks system provided that such projects are implemented in accordance with applicable federal and state laws, regulations, and requirements.

The EENF also describes project work required on land used for open space and recreation. Portions of Segments 2 and 3 of Section 22 within the Neponset River Reservation and the pipeline also cross the Neponset River Greenway Trail. Comments from DCR indicate that where the pipeline rehabilitation work activity necessitates access through DCR lands or across DCR Greenways/Parkways, a Construction and Access Permit (CAP) will be required. In addition, the pipeline crosses Presidents Golf Course and Andrews Park in Milton (Segments 3 and 4) and Furnace Brook Golf Club in Quincy (Segment 4). The Furnace Brook Golf Club is owned and operated by the City of Quincy and is considered a recreational resource. This recreational facility is accessible to the public, including residents and non-residents of the City and is therefore considered Article 97 land. Andrews Park is protected in perpetuity and is also Article 97 land. Andrews Park is a 9-acre recreational park owned by the Town of Milton. The park is located to the north of the existing pipeline, and no work is planned within the park boundaries. There will be no disposition of Article 97 Land.

As described in the EENF, the project passes Andrews Park but there are existing buffers of vegetation and residential homes between the pipeline and the Park and there will be no impact to Article 97 Land. There will be one access pit located in the southernmost corner of the Furnace Brook Golf Club property (outside of the limits of play) within the existing pipe alignment. Temporary disturbance from the access pit will be restored to existing conditions. The entrance to the golf course is off the north end of Reservoir Road and no direct traffic impacts are anticipated. Mitigation for temporary construction impacts will be provided as discussed further below.

*Chapter 91*

The EENF describes work with c.91 jurisdiction including work in two wetlands labeled as B1 and M1 and two unnamed tidal creeks and states that since the proposed work is for repair and alterations to an existing public service project, it may be approved as a Minor Modification. It also states that installation of a new pipe within Granite Avenue may require a license which will be determined upon consultation with the MassDEP Waterways Program. Comments from MassDEP Waterways indicate that the filing does not accurately describe or depict c.91 jurisdictional boundaries and does not include sufficient information to determine which components of the project require c.91 authorization, or the necessary type of authorization.

The EENF indicates that 3,100 sf of trenching will occur in Salt Marsh with a dredge volume of approximately 1,400 cubic yards (cy). Comments from MassDEP Waterways note that dredging requires a c.91 permit pursuant to 310 CMR 9.05(3) and adds that in order to meet the definition of

“maintenance” dredging as defined at 310 CMR 9.02, documentation of a prior c.91 authorization for dredging within the proposed footprint and to the proposed dredge depth is required. If the proposed dredge area was not previously issued a c.91 authorization, the dredging is “improvement” dredging and required to meet the standard at 310 CMR 9.40(1)(b)1. if located within an ACEC. The Single EIR should include a list of any c.91 license and/or authorizations that are applicable to the project site and a response to Chapter 91 comments.

### *Historical and Archaeological Assets*

The EENF indicates that properties listed in the National and State Registers of Historic Places, as well as properties listed in the Inventory of Historic and Archaeological Assets of the Commonwealth overlap or are directly adjacent to three pipeline segments (Section 22 Segments 1 and 4, and Section 21). The majority of historic and archaeological resources identified are not anticipated to be impacted by the project; however, two resources contain historic features within or along the pipeline alignments that have the potential to be impacted by the project. Section 21 includes historic stone wall and granite posts along sections of roadway with the Railway Village Historic District. The EENF states that these features are located on the interior of the sidewalk boundary and at the entrances of property driveways. The MWRA indicates that MHC may require additional information demonstrating that these features are outside the limits of work (including construction laydown and access areas), and/or reconstruction plans if limited areas of physical impacts to these resources are possible during construction. Section 22 includes the Furnace Brook Parkway, an approximately four-mile stretch of parkway that was established in the early twentieth century as part of the greater Boston Metropolitan Park System; the entire parkway network was listed in the National Register in 2004. Contributing features include tree canopy and both vertical granite and Belgian block curbing. Segment 4 ends within the boundaries of this historic district. The EENF states that since roadway features may be impacted during construction within or near a road, additional information may be required to demonstrate the project will not result in changes to tree cover or roadway alignment and that disturbance to the existing curbing will be avoided if possible. If not possible, the mitigation would include removing and re-installing curbing post-construction in coordination with MHC.

### *Hazardous Waste*

The EENF describes the potential presence of hazardous materials in relation to the proposed project including contaminated soils and groundwater, MassDEP identified disposal sites, and one EPA Superfund site. The EENF provides the results of limited soil and groundwater investigations which were conducted in July 2020. Based on the soil analytical results, elevated concentrations of poly aromatic hydrocarbons (PAHs) and lead were detected in excess of MassDEP reportable concentration (RCS-1) in soil samples collected from Section 22, Segment 3 (the existing alignment in the salt marsh between Granite Avenue and I-93). Elevated concentrations of PAHs, lead, arsenic, and petroleum constituents were also detected in excess of the RCS-1 standards within the northern and southern portions of Section 22, Segment 4. Three groundwater samples were collected from Section 22 Segment 3 and Segment 4, and no concentrations of oil and hazardous materials (OHMs) were detected above the applicable reportable concentrations within these segments. The EENF states that mitigation measures during construction will include special handling, dust control, and management of contaminated soil and groundwater in order to provide adequate protection to workers and any nearby sensitive receptors (including hospitals, elder care facilities, schools, recreational facilities, and religious facilities). In the event that the project generates hazardous waste and/or waste oil, a permanent identification number would be obtained in accordance with MassDEP regulations (310 CMR 30.000).

As stated in the EENF, a review of the MassDEP Bureau of Waste Site Cleanup (BWSC) online database of hazardous waste sites, 35 hazardous waste sites<sup>4</sup> were identified within a 500-foot radius of the project segments. A summary of the MassDEP hazardous waste sites with the potential for impact relative to the project is provided in the summary table below.

Project Section	Disposal Site(s) with Potential to Impact	Disposal Site(s) Unlikely to Impact	Total Disposal Sites
<b>Section 21</b>	<b>10</b>	<b>0</b>	<b>10</b>
<b>Section 22</b>			
Segment 1	6	3	9
Segment 2	3	1	4
Segment 3A	5	2	7
Segment 4	5	0	5
<i>Subtotal</i>	<i>19</i>	<i>6</i>	<i>25</i>
<b>Total</b>	<b>29</b>	<b>6</b>	<b>35</b>

Of the disposal sites with the potential for impacts to project conditions (10 in Section 21, and 19 in Section 22), the EENF includes additional information regarding RTN 3-27149 in Section 21 in Milton and RTN 3-27149 on the Neponset River Trail in Section 22. The following information was provided:

- Section 21: RTN 3-0027149 is located at the intersection of Adam and Franklin Street in Milton. The release achieved regulatory closure through the submittal of a Class A-2 Response Action Outcome (RAO) Statement in October 2007 indicating a Condition of No Significant Risk was achieved; however, residual concentrations of petroleum constituents and PAHs remain in soil.
- Section 22: RTN 3-0018465 is located within the Neponset Trail. The release achieved regulatory closure through the submittal of a Class A-2 RAO Statement in June 2000 indicating a Condition of No Significant Risk was achieved; however, residual concentrations of arsenic remain in soil. Although not required for public rights-of-way (ROWs), an Activity and Use Limitation (AUL) was recorded for the Neponset River Trail.

The EENF indicates that within the Section 22 AUL, any construction activities would be conducted under a Utility Related Abatement Measure (URAM) Plan pursuant to 310 CMR 40.0460. Following construction activities, the protective barrier layer would be restored to restrict access to the underlying arsenic- and PAH-impacted soils. Work in other impacted areas will require notification to MassDEP and will be conducted under a URAM. As state previously, a LSP will be onsite for work related to hazardous soils.

The EENF also describes hazardous materials which are addressed at the federal level and managed by the Environmental Protection Agency (EPA) under the Superfund program including a site in the vicinity of Section 22 associated with the Lower Neponset River. Based on preliminary studies, 3.7 miles of the Lower Neponset River contain sediment, surface water, and fish that are contaminated with elevated levels of polychlorinated biphenyls (PCBs). Although the Superfund site is located approximately 400 feet south of Section 22, Segment 1, assessment activities are ongoing. Portions of

<sup>4</sup> The presence of a state-listed disposal site indicates that a release of hazardous materials has been reported to the MassDEP.

Section 22, Segment 2 are located within Salt Marsh directly north and downstream of the Superfund site. The latest Superfund reports will be reviewed prior to construction for updates regarding the extents of the PCB impacts.

### *Climate Change*

#### *Adaptation and Resiliency*

Effective October 1, 2021, all MEPA projects are required to submit an output report from the MA Resilience Design Tool to assess the climate risks of the project. Based on the output report attached to the ENF, the project has a high exposure rating based on the project's location for the following climate parameters: sea level rise/storm surge, extreme precipitation (urban and riverine flooding), and extreme heat. Based on the 55-year useful life and the self-assessed criticality of the Section 21 and 22 pipe segments, the MA Resilience Design Tool recommends a planning horizon of 2070 and a return period associated with a 200-year (0.5% annual chance) storm event for sea level rise/storm surge, and a 50-year (2% annual chance) storm event for extreme precipitation when designing the Section 21 and 22 pipelines (a "utility" asset). I note that the recommended planning horizon for assets that are unlikely to be relocated (such as water distribution systems) is 60-80 years.<sup>5</sup> This would yield corresponding return period recommendations of the 500-year (0.2% chance) storm event for sea level rise/storm surge and the 100-year (1% chance) storm event for extreme precipitation.<sup>6</sup>

The EENF states that although the MA Resilience Design Tool identified the project elements as having high exposure due to their locations near the coast, and as high risk due to their criticality as water supply infrastructure, projected climate change impacts are not anticipated to affect this infrastructure due to its location below ground. The project will not result in any changes to site topography or floodwater flow paths or velocities that could impact adjacent properties or the functioning of the floodplain.

### *Transportation*

According to the EENF, construction of the project will involve trenching along the segments to be removed and replaced and at construction access pit locations. Measures will be implemented to minimize impacts to adjacent residences, businesses, and EJ populations and others relying on transportation corridors. A TMP will be developed in coordination with municipalities to minimize impacts on the public. Items identified in the EENF to be included in the TMP are listed below.

- Ongoing coordination with police and fire departments;
- Provisions for emergency vehicle access;
- Timing and delivery of equipment and materials;
- Lane location and width within the work zone to minimize impacts to vehicular traffic movement and promote safe passage;
- Work schedule and duration of any proposed lane closures, alternating traffic flow patterns, road closures, and/or detours where necessary;
- Traffic-control devices such as barricades, reflective barriers, advance warning signs, traffic regulation signs, traffic control drums, flashers, detour signs, and other protective devices as approved by the various towns;

<sup>5</sup> [https://cea-nescaum-dataservices-assets-prd.s3.amazonaws.com/cms/GUIDELINES/V1.2\\_SECTION\\_2.pdf](https://cea-nescaum-dataservices-assets-prd.s3.amazonaws.com/cms/GUIDELINES/V1.2_SECTION_2.pdf), p. 12.

<sup>6</sup> [https://cea-nescaum-dataservices-assets-prd.s3.amazonaws.com/cms/GUIDELINES/V1.2\\_SECTION\\_4.pdf](https://cea-nescaum-dataservices-assets-prd.s3.amazonaws.com/cms/GUIDELINES/V1.2_SECTION_4.pdf), pp. 12, 23.

- Locations where temporary provisions may be made to maintain access to homes and businesses;
- Routing and safeguarding of pedestrian and bicycle traffic;
- Continuity plans along school bus and private motor coach routes;
- Method of communication with adjacent businesses to avoid interruptions to critical product deliveries;
- Roadway level of service effects due to short-term lane closure(s); and
- Development of a system to notify municipal officials, local businesses, and the public of the timing and duration of travel restrictions.

### *Construction Period*

The MWRA indicates that the project will be constructed in multiple phases between 2025 and 2027; however, the specific phasing and construction sequence has not been identified at this time. Comments from the Boston Water and Sewer Commission (BWSC) request that the MWRA coordinate with the BWSC's Operations department on construction schedules that could result in water service disruptions. The EENF states that temporary impacts associated with construction may include noise, dust and emissions and that best management practices will be implemented to minimize and mitigate these impacts.

All construction and demolition (C&D) activities should be managed in accordance with applicable MassDEP regulations regarding Air Pollution Control (310 CMR 7.01, 7.09-7.10), and Solid Waste Facilities (310 CMR 16.00 and 310 CMR 19.00, including the waste ban provision at 310 CMR 19.017). The project should include measures to reduce construction period impacts (e.g., noise, dust, odor, solid waste management, etc.) and emissions of air pollutants from equipment, including anti-idling measures in accordance with the Air Quality regulations (310 CMR 7.11). I encourage the Proponent to require that its contractors use construction equipment with engines manufactured to Tier 4 federal emission standards, or select project contractors that have installed retrofit emissions control devices or vehicles that use alternative fuels to reduce emissions of volatile organic compounds (VOCs), carbon monoxide (CO) and particulate matter (PM) from diesel-powered equipment. Off-road vehicles are required to use ultra-low sulfur diesel fuel (ULSD). If oil and/or hazardous materials are found during construction, the Proponent should notify MassDEP in accordance with the Massachusetts Contingency Plan (MCP; 310 CMR 40.0000). All construction activities should be undertaken in compliance with the conditions of all State and local permits. I encourage the Proponent to reuse or recycle C&D debris to the maximum extent.

## SCOPE

### General

The Single EIR should follow Section 11.07 of the MEPA regulations for outline and content and provide the information and analyses required in this Scope. It should clearly demonstrate that the Proponent has sought to avoid, minimize and mitigate Damage to the Environment to the maximum extent practicable

### Project Description and Permitting

The Single EIR should identify any changes to the project since the filing of the EENF. It should identify and describe State, federal and local permitting and review requirements associated with the project and provide an update on the status of each of these pending actions. The Single EIR should include a description and analysis of applicable statutory and regulatory standards and requirements, and a discussion of the project's consistency with those standards. The Single EIR should identify methods that will be undertaken to avoid, minimize and mitigate Damage to the Environment.

As requested in comments from MassDEP Waterways, the Single EIR should include plans depicting the full scope of work, including any temporary activities, fill, and/or structures, existing and proposed conditions surveys that include delineated mean high water and the historic high water mark for all waterways within the project site. Layers and boundaries not relevant for c.91 should not be included on the requested plans.

### Environmental Justice

The Single EIR should provide an update on outreach efforts and describe how the project is implementing the outreach plan. The Single EIR or summary thereof should be distributed to the EJ Reference List and an updated list should be obtained from the MEPA Office to ensure that contacts are up to date.

The Single EIR should provide a comprehensive discussion of construction period staging and activities, and whether such activities will impact EJ populations. The Single EIR should discuss the nature and extent of construction period traffic anticipated, and whether such traffic is likely to extend through EJ populations. The Single EIR should discuss what disruptions are anticipated for vehicular, pedestrian, transit, and bicycle travel, and how the Proponent will communicate with the public about potential disruptions to local neighborhoods. The Single EIR should discuss whether a construction management plan will be developed, and if so, submit a copy of the plan or describe its components.

### Wetland Resource Areas

The Single EIR should respond to comments from MassDEP, CZM, and DMF (incorporated in their entirety herein) including those related to temporary impacts to Salt Marsh. The Single EIR should provide additional information on how long temporary construction mats will remain in place, how the mats will be anchored, and the time of year in which construction will occur (comments from DMF and CZM recommend work in Salt Marsh occur outside the growing season). The Single EIR should provide information on where subsoil from digging access pits will be stockpiled. Comments from CZM state that the subsoil should be stored outside of the Salt Marsh to the maximum extent practicable to avoid compaction of the Salt Marsh platform beneath the staging area.

Comments from MassDEP, CZM, and DMF request that the Single EIR outline proposed pre- and post-construction monitoring plans to determine whether any Salt Marsh impacts occur. Pre-construction characterization of the Salt Marsh vegetation on the site should be included. The monitoring plan should specify the schedule for Salt Marsh reestablishment including the anticipated season for restoration planting. The EENF proposes a two-year monitoring program, but comments from MassDEP indicate that a longer period is usually specified in USACOE permits. The proposed monitoring period should be discussed fully in the Single EIR so that it can be consistently mandated by

the OOCs issued under the Wetlands Protect Act, the MassDEP 401 WQC, and the USACE 404. The monitoring plan should include adaptive management actions in the case that post-construction marsh does not recover to an acceptable level compared to the pre-construction conditions. Comments from CZM request more detail on the leak detection program to determine if leaks pose a risk to the Salt Marsh.

Comments from CZM also request that the Single EIR include a copy of the Request for Advisory Opinion (RAO) submitted in March 2020 for pipeline Section 22 including responses to questions raised by MEPA and CZM in April 2020. As noted in CZM comments, the monitoring protocols described in the RAO are recommended to be used as a guide for post-construction monitoring.

### Chapter 91

The Single EIR should include the additional information as requested in the comment letter from MassDEP Waterways (incorporated in its entirety herein). In addition to the site plans requested above, the Single EIR should include a table that identifies the footprint of any proposed work within each filled and flowed tidelands, including any dredging and temporary fill/structures. As outlined in comments, the Single EIR should identify any work determined to require a c.91 permit or license, including work within any ACEC, and should address compliance with applicable c.91 regulations.

The Single EIR should address comments from MassDEP Waterways as they relate to the proposed dredging in Salt Marsh including the request to document prior c.91 authorization for dredging with the proposed footprint and to the proposed dredge depth. The Single EIR should include a list of all c.91 licenses and/or authorizations that are applicable to the project site.

### Historic and Archaeological Resources

The Single EIR should provide an update on coordination with MHC to assess potential archaeological sensitivity within the project site and potential impacts to contributing features located within historic districts within Section 22 Segments 1 and 4, and Section 21.

### Mitigation and Draft Section 61 Findings

The Single EIR should include a separate chapter summarizing all proposed mitigation measures including construction-period measures. This chapter should also include a comprehensive list of all commitments made by the Proponent to avoid, minimize and mitigate the environmental and related public health impacts of the project, and should include a separate section outlining mitigation commitments relative to EJ populations. The filing should contain clear commitments to implement these mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and contain a schedule for implementation. The list of commitments should be provided in a tabular format organized by subject matter (traffic, water/wastewater, GHG, environmental justice, etc.) and identify the Agency Action or Permit associated with each category of impact. Draft Section 61 Findings should be separately included for each Agency Action to be taken on the project. The filing should clearly indicate which mitigation measures will be constructed or implemented based upon project phasing to ensure that adequate measures are in place to mitigate impacts associated with each development phase.



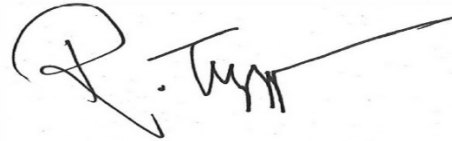
Responses to Comments

The Single EIR should contain a copy of this Certificate and a copy of each comment letter received. To ensure that the issues raised by commenters are addressed, the Single EIR should include direct responses to comments to the extent that they are within MEPA jurisdiction. This directive is not intended, and shall not be construed, to enlarge the scope of the Single EIR beyond what has been expressly identified in this certificate.

Circulation

In accordance with 301 CMR 11.16, the Proponent should circulate the Single EIR to each Person or Agency who commented on the EENF, each Agency from which the project will seek Permits, Land Transfers or Financial Assistance, and to any other Agency or Person identified in the Scope. Pursuant to 301 CMR 11.16(5), the Proponent may circulate copies of the Single EIR to commenters in a digital format (e.g., CD-ROM, USB drive) or post to an online website. However, the Proponent should make available a reasonable number of hard copies to accommodate those without convenient access to a computer to be distributed upon request on a first come, first served basis. A copy of the Single EIR should be made available for review in the Milton and Quincy Libraries and the nearest Boston Public Library Branch.

January 13, 2023  
Date



Rebecca L. Tepper

## Comments received:

12/30/2022	Division of Marine Fisheries (DMF)
01/04/2023	Boston Water and Sewer Commission (BWSC)
01/04/2023	Department of Conservation and Recreation (DCR)
01/04/2023	Massachusetts Department of Environmental Protection (MassDEP) Waterways Program
01/06/2023	MassDEP Northeast Regional Office (NERO)
01/06/2023	Coastal Zone Management (CZM)

RLT/JAH/jah

**Boston Water and  
Sewer Commission**



980 Harrison Avenue  
Boston, MA 02119-2540  
617-989-7000

January 4, 2023

Secretary Bethany A. Card  
Executive Office of Environmental Affairs  
Attn: MEPA Office  
Jennifer Hughes, No. 16633  
100 Cambridge Street, Suite 900  
Boston, MA 02114

Re: MWRA Section 22 and 21 Water Pipe Rehabilitation Project  
Expanded Environmental Notification Form

Dear Ms. Card:

The Boston Water and Sewer Commission (Commission) has reviewed the Expanded Project Notification Form (EPNF) for the MWRA's Water Pipe Rehabilitation of Section 22 and 21. This letter provides the Commission's comments on the EENF.

The proposed project is located in Boston, Milton and Quincy. The project will rehabilitate portions of Section 22 and 21 of a water main that is composed of 48-inch-diameter unlined steel pipe and 52-inch-diameter concrete-lined steel pipe. The project will restore the pipe to full function.

The rehabilitation methods include remove and replace, clean and line and slip lining of the main depending on its location and condition.

The Commission request that the MWRA coordinate with the Commission and its Operation's department with construction schedules that could result in water service disruptions to the Commission.

Thank you for the opportunity to comment on this project.

Yours truly,

John P. Sullivan, P.E.  
Chief Engineer

JPS/cj



January 4, 2023

Secretary Bethany A. Card  
Executive Office of Energy and Environmental Affairs  
MEPA Office, Attn: Jennifer Hughes  
100 Cambridge Street, Suite 900  
Boston, Massachusetts 02114

Re: EEA#16633 – MWRA Section 21 and 22 Water Pipeline Rehabilitation Project EENF

Dear Secretary Card:

The Department of Conservation and Recreation (“DCR” or the “Department”) has reviewed the Expanded Environmental Notification Form (“EENF”) submitted by the Massachusetts Water Resources Authority (the “Proponent” or the “MWRA”) for the MWRA Section 21 and 22 Water Pipeline Rehabilitation Project (the “Project”).

As described in the EENF, the MWRA proposes to rehabilitate critical water pipelines in portions of Section 22 and Section 21 in Boston, Milton and Quincy to restore them to full function. The EENF indicates that work to be conducted in Segments 2 and 3 of Section 22 in Boston and Milton is within the Neponset River Reservation. The pipeline also crosses the Neponset River Greenway Trail in Section 22. DCR appreciates the pre-filing coordination with MWRA related to permitting for test pits within the state reservation.

For sites where the pipeline rehabilitation work activity necessitates access through DCR lands or across DCR Greenways/Parkways, and where work activities are conducted directly on DCR lands, a DCR Construction and Access Permit (“CAP”) will be required. DCR notes that all environmental permits required for work on DCR property must be reviewed by DCR prior to submission to regulatory agencies.

DCR appreciates the opportunity to comment on this project. Please contact Sean Casey, Director of Construction and Access Permits at [sean.casey@mass.gov](mailto:sean.casey@mass.gov) to request a CAP.

Sincerely,

*Douglas Rice*

Douglas J. Rice  
Commissioner

cc: Priscilla Geigis, Patrice Kish, Tom LaRosa, Sean Casey





# Department of Environmental Protection

100 Cambridge Street 9th Floor Boston, MA 02114 • 617-292-5500

Charles D. Baker  
Governor

Karyn E. Polito  
Lieutenant Governor

Bethany A. Card  
Secretary

Martin Suuberg  
Commissioner

## Memorandum

**To:** Jennifer Hughes, MEPA Unit

**From:** Waterways Regulation Program, MassDEP/Boston

**cc:** Daniel Padien, Program Chief, MassDEP/Boston

**Re:** MWRA Section 22 and 21 Water Pipeline Rehabilitation Project, EENF / EEA #16633  
Chapter 91 Waterways Regulation Program Comments

**Date:** January 4, 2023

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The Department of Environmental Protection Waterways Regulation Program (the “Department”) has reviewed the above referenced EENF (EEA #16633) submitted by the Massachusetts Water Resources Authority (the “Proponent”) for the rehabilitation of water pipelines located in Boston, Milton, and Quincy within filled and flowed tidelands of the Neponset River.

The EENF asserts that certain work may be authorized as a Minor Project Modification and one portion of the project may require a Chapter 91 (c.91) license. However, the filing does not accurately describe or depict c.91 jurisdictional boundaries and does not include sufficient information for the Department to determine which components of the project or scopes of work require c.91 authorization, or the necessary type of authorization. The Environmental Impact Report should include a plan depicting the full scope of work, including any temporary activities, fill, and/or structures, existing and proposed conditions surveys that include delineated mean high water and the historic high water mark for all waterways within the project site. Layers and boundaries not relevant for c.91 should not be included on the requested plans. The EIR should also include a table that identifies the footprint of any proposed work within each filled and flowed tidelands, including any dredging and temporary fill/structures. Any work determined to require a Chapter 91 permit or license is subject to the standards at 310 CMR 9.00, including but not limited to those at 310 CMR 9.32 and 310 CMR 9.40 as they relate to work within any Area of Critical Environmental Concern. It is recommended that any such work be identified, and compliance with the referenced regulations be addressed in the EIR.

The EENF notes that dredging is proposed. Dredging within flowed tidelands requires a c.91 permit pursuant to 310 CMR 9.05(3), and in order to meet the definition of “maintenance” dredging as defined at 310 CMR 9.02, documentation of a prior c.91 authorization for dredging within the proposed footprint and to the proposed dredge depth is required. If the proposed dredge area was not previously issued a c.91 authorization, the dredging is “improvement” dredging and required to meet the standard at 310 CMR 9.40(1)(b)1 if located within an Area of Critical Environmental Concern.


The Proponent should also include a list of any c.91 licenses and/or authorizations that are applicable to the project site in the EIR.

The Department looks forward to receipt of the information that includes the necessary information relative to Chapter 91 so that substantive comments and licensing guidance may be provided. The Proponent is encouraged to contact the Department at [DEP.Waterways@mass.gov](mailto:DEP.Waterways@mass.gov) with any questions on these comments prior to submittal of any subsequent MEPA filing.



## MEMORANDUM

TO: Rebecca L. Tepper, Secretary, EEA  
ATTN: Alexander Strysky, MEPA Office  
FROM: Lisa Berry Engler, Director, CZM  
DATE: January 6, 2023  
RE: EEA-16633, MWRA Section 22 and 21 Water Pipeline Rehabilitation Project



The Massachusetts Office of Coastal Zone Management (CZM) has completed its review of the above-referenced Environmental Notification Form (ENF), noticed in the *Environmental Monitor* dated December 7, 2022, and offers the following comments.

### Project Description

The Massachusetts Water Resources Authority's (MWRA) Section 22 is a critical water pipeline that delivers drinking water to and within, Boston, Milton, and Quincy, Massachusetts. Section 22 is approximately 16,000 feet long and composed primarily of a 48-inch-diameter unlined steel pipe with dresser coupling joints. A 650-foot-long portion of Section 22 that runs under the Neponset River is constructed of 52-inch diameter concrete-lined steel pipe with welded joints. Section 21 is also a critical water pipeline composed of an approximately 3,600-foot-long, 24-inch-diameter cast iron pipe in Milton and Quincy. Over the years, Section 22 has required several repairs, and the interior of Section 21 is heavily corroded. MWRA proposes to rehabilitate portions of Section 22 and Section 21 to restore them to full function and ensure continued reliability. MWRA is proposing 43,910 square feet (sf) of temporary impacts to salt marsh and 6,460 sf of temporary impacts to Land Subject to Coastal Storm Flowage. Before issuing this ENF, MWRA issued a Request for Advisory Opinion (RAO) for pipeline Section 22 evaluation work proposed in the Neponset River Estuary Area of Critical Environmental Concern. MWRA responded to questions raised by MEPA and CZM in April 2020.

### Project Comments

#### *Resource Areas – Salt Marsh*

MWRA should demonstrate in the Environmental Impact Report (EIR) how this project has been designed to ensure the salt marsh returns to pre-construction conditions. The EIR should include:

- Information on how MWRA intends to handle leftover subsoil from digging the access pits.
  - The designated staging area for the subsoil removed from the access pits should be outside of the salt marsh to the maximum extent practicable to avoid compaction of the salt marsh platform beneath the staging area.
- Monitoring and/or adaptive management actions that are planned if the post-construction salt marsh does not recover to pre-construction conditions.
  - Provide clarification on post-construction monitoring and adaptive management components of the project to confirm that the proposed impacts are temporary, and that the salt marsh is functioning at an acceptable level compared to pre-construction conditions. The monitoring protocols described in the RAO are recommended to be used as a guide for post-construction monitoring.



- Pre-construction characterization of the salt marsh vegetation on the site should be included.
  - This will inform where species such as *Spartina alterniflora* and *Spartina patens* are planted to match pre-construction conditions to the maximum extent practicable.
- Description of what actions would be taken if the dredged material does not adequately restore the salt marsh to the pre-construction elevation due to compaction from construction equipment and activities.
- More detail on the leak detection program is recommended in determining if the leaks potentially pose a risk to the salt marsh.
- Clarify the project timeline and ensure that work in the salt marsh is avoided during the summer months to create fewer impacts during the growing season.
- Additional specifics on the anchoring of the construction mats in the salt marsh.

MWRA should include a copy of the RAO and any RAO responses between MWRA and the State, and/or Federal Agencies in the EIR.

### **Federal Consistency Review**

The proposed project may be subject to CZM federal consistency review, and if so, must be found to be consistent with CZM's enforceable program policies. For further information on this process, please contact Robert Boeri, Project Review Coordinator, at [robert.boeri@mass.gov](mailto:robert.boeri@mass.gov), or visit the CZM website at [www.mass.gov/federal-consistency-review-program](http://www.mass.gov/federal-consistency-review-program).

LE/jy

cc: Joanna Yelen, Adrienne Pappal, Sean Duffey, CZM  
Katelyn Frew, DMF  
Phil DiPietro, DEP



Commonwealth of Massachusetts  
Executive Office of Energy & Environmental Affairs

# Department of Environmental Protection

Northeast Regional Office • 150 Presidential Way Woburn, MA 01801 • 978-694-3200

Maura T. Healey  
Governor

Kimberley Driscoll  
Lieutenant Governor

Rebecca L. Tepper  
Secretary

Gary Moran  
Acting Commissioner

January 06, 2023

Rebecca L. Tepper, Secretary  
Executive Office of  
Energy & Environmental Affairs  
100 Cambridge Street  
Boston MA, 02114

RE: Boston, Quincy, Milton  
MWRA Section 21 and 22 Rehabilitation  
EEA # 16633

Attn: MEPA Unit

Dear Secretary Tepper:

The Massachusetts Department of Environmental Protection Northeast Regional Office (MassDEP-NERO) has reviewed the Expanded Environmental Notification Form (EENF) for the proposed MWRA Section 21 and 22 Rehabilitation in Boston, Quincy, Milton. MassDEP provides the following comments.

MWRA has filed an Expanded Environmental Notification Form (EENF) for the proposed rehabilitation of the Section 22 and 21 water pipelines that deliver drinking water. Section 21 is 16,000 feet long and composed of 48-inch steel pipe and located in Boston, Milton, and Quincy. Section 21 is 24-inch cast iron pipe 3600 feet long running through Milton and Quincy. An ENF is required because the project trips 301 CMR 11.03(3)(a)1.a. (alteration of one or more acres of salt marsh or Bordering Vegetated Wetlands (BVW)) and 301 CMR 11.03(11)(b) (any project within a designated ACEC).

## Wetlands

A Pre-Construction Notification (PCN) to the U.S. Army Corps of Engineers (USACE) is required under Section 404 of the Clean Water Act (CWA). A National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges from Construction

This information is available in alternate format. Please contact Melixza Esenyie at 617-626-1282.

TTY# MassRelay Service 1-800-439-2370  
MassDEP Website: [www.mass.gov/dep](http://www.mass.gov/dep)

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activities, or CGP, for more than one acre of land disturbance is also required. These federal permits, combined with the project's location within the Massachusetts Coastal Zone, also trigger Federal Consistency Review by Massachusetts CZM under the Coastal Zone Management Act. Approval by MassDEP under Chapter 91 is required for pipe access pits and construction matting within flowed tidelands below the salt marsh boundary and below the High-Water mark. All activities in salt marsh and BVW, including temporary construction matting within salt marsh, will require a Major Water Quality Certification (WQC) from the MassDEP under Section 401 of the CWA. A dredging WQC will also be required for activities classified as dredging in salt marsh, so the filing of a combined application, called a BRP WW 26, for a Major Fill project (over 5,000 square feet) and a Minor Dredge Project (less than 5000 cubic yards) is advised.

The Project will involve work within areas jurisdictional to the Massachusetts Wetlands Protection Act, including Salt Marsh, Riverfront Area, Land Subject to Coastal Storm Flowage (LSCSF) and Bordering Land Subject to Flooding (BLSF). For the majority of the project, the replacement of an existing and lawfully located facility used in the service of the public and used to provide water services is proposed, and therefore does not strictly require the filing a Notice of Intent in accordance with the exemption at 310 CMR10.02(2)(a)2). However, the MWRA intends to file Notices of Intent in all three municipalities for the activities along the pipeline alignment.

While environmental impacts associated with the project can be categorized as relatively limited and temporary due to the pipelines' location in an existing maintained right-of-way corridor, they are significant.

Approximately an acre of temporary salt marsh alteration is proposed to reline antiquated water pipelines. Impacts are from access pits and swamp mats. Within salt marsh, the pipe will be relined so there will be no relatively large impacts from excavation of linear sections of salt marsh, as there would be if there were sections of pipe replacement. There are two stream crossings of unnamed tidal creeks as well as Furnace Brook and the Neponset. One of the tidal creek crossings at Granite Ave avoids work in a wetland that would result from an alternative alignment.

There will be 3100 square feet of dredging in salt marsh with a dredge volume of approximately 1410 cubic yards. Temporary pipe access pits within salt marsh will result in approximately 3580 square feet of temporary impacts. Construction mat impacts to salt marsh will result in approximately 40,330 square feet of temporary impacts.

Impacts to LSCSF include 3490 square feet from pipe access pits and 6310 square feet from trenching, while impacts to BLSF include 1690 square feet from pits and 6380 from trenching. No impacts from construction mats are proposed with BLSF or LSCSF. No increase in grades will occur in BLSF or LSCSF.

At access pit locations within salt marsh, the vegetation layer and subsoil will be set aside with layers in separate piles, and upon completion of work the subsoils will be replaced with

layers intact and the vegetation layer reestablished by plantings. Generally, the best time of year to reestablish salt marsh is during the spring planting season to avoid possible impacts from frost or ice during the fall planting season. The EIR should specify the schedule for saltmarsh reestablishment. Environmental monitors will regularly review construction areas to confirm that the work is being completed in accordance with applicable permit conditions. A two-year monitoring program for the reestablishment of salt marsh is proposed in the EENF, but a longer period is usually specified in USACE permits. The proposed monitoring period should be discussed fully in the EIR though consultation with USACE so that it can be consistently mandated by the Orders of Conditions issued under the Wetlands Protect Act, the MassDEP 401 WQC and the USACE 404.

There will be temporary wetland impacts within the Neponset River Estuary ACEC. Approximately 6400 linear feet of segment 2, section 22, passes through the estuary ACEC. Impacts in the ACEC will be limited to the existing alignment of the pipeline and will be restored upon completion of work. The work in wetlands in the ACEC, which is an ORW, will be able to be permitted under the provisions of the 401 Regulation at 314 CMR 9.06 (3)(a): “Projects conducted or approved by public or private water suppliers in the performance of their responsibilities and duties to protect the quality of the water in the watersheds, or to maintain, operate and improve the waterworks system, provided that such projects are implemented in accordance with applicable federal and state laws, regulations, and requirements”; and (c) “Maintenance, repair, replacement or reconstruction but not substantial enlargement of existing and lawfully located structures or facilities including buildings, roads, railways, utilities, dams, and coastal engineering structures.”

The alternatives analysis presented in the EENF is at a level consistent for permitting and does a thorough job of explaining why the different treatments for pipeline segments, including replacement, cleaning or relining should be implemented. The analysis supports the proponent’s conclusion that impacts to wetlands will be minimized by the chosen alternatives. It also explains the rationale justifying the locations and methodologies for stream crossings.

The MassDEP appreciates the opportunity to comment on this proposed project. Please contact [Rachel.Freed@mass.gov](mailto:Rachel.Freed@mass.gov) at (978) 604-1985 for further information on wetlands issues. If you have any general questions regarding these comments, please contact me at [John.D.Viola@mass.gov](mailto:John.D.Viola@mass.gov) or at (857) 276-3161.

Sincerely,

This final document copy is being provided to you electronically by the Department of Environmental Protection. A signed copy of this document is on file at the DEP office listed on the letterhead.

John D. Viola  
Deputy Regional Director

cc: Brona Simon, Massachusetts Historical Commission  
Eric Worrall, Rachel Freed, MassDEP-NERO



# The Commonwealth of Massachusetts

## Division of Marine Fisheries

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RONALD S. AMIDON  
Commissioner

DANIEL J. MCKIERNAN  
Director

December 30, 2022

Secretary Rebecca Tepper  
Executive Office of Energy and Environmental Affairs (EEA)  
Attn: MEPA Office  
Jennifer Hughes, EEA No. 16633  
100 Cambridge Street, Suite 900  
Boston, MA 02114

Dear Secretary Tepper:

The Division of Marine Fisheries (MA DMF) has reviewed the Expanded Environmental Notification Form (EENF) for the proposed MWRA Section 22 and 21 Water Pipeline Rehabilitation Project in the City of Boston, Town of Milton, and City of Quincy. The project involves the repair of pipelines that deliver drinking water to Boston, Milton, and Quincy. The project site of Section 22 spans from Dorchester Lower Mills in Boston to the intersection of Furnace Brook Parkway and Adams Street in Milton. This 48" diameter pipeline was constructed in 1950 and is approximately 16,000' long. Section 21 begins at the intersection of Granite Avenue and Adams Street in Milton and ends at the intersection of Beale Street and Summit Avenue in Milton. This 24" diameter pipeline was constructed in the early 1900s and is 3,600' long. Both sections of pipe are deteriorating and in immediate need of repair. Existing marine fisheries resources and habitat and potential project impacts to those resources are outlined below.

Segment 2 of Section 22 passes through salt marsh and the Neponset River Area of Critical Environmental Concern (ACEC). Salt marsh provides a variety of ecosystem services, including habitat and energy sources for many fish and invertebrate species [1–3]. This segment will be sliplined with a 40-inch steel pipe. This method requires 12'x30' access pits at bends in the existing pipelines. To access the pits, temporary construction mats are required for construction vehicle access and support. After sections are replaced, the excavation will be backfilled and resorted to existing grades. Section 21 is located within existing roadways amongst residential and commercial land uses and does not occur within any mapped resource areas including waterways and wetlands.

MA DMF offers the following comments for your consideration:

- The EENF includes an estimated 43,910 square feet of temporary impacts to salt marsh associated with pipe access pits and installation of temporary construction mats. The EIR developed for this project should estimate how long the temporary mats would be in place for. Experimental results demonstrated that marsh vegetation covered by wrack (plant debris) completely died off after five (*Spartina patens*) to seven (*S. alterniflora*) weeks [4]. A similar degree of loss would be anticipated if mat cover occurred during the growing season for a

similar amount of time. Work on the marsh platform outside of the growing season would help to minimize potential impacts to this important habitat.

- The EIR should outline proposed pre-and post-construction monitoring plans to determine whether any marsh impacts occur. Adaptive management actions should be outlined in the case that post-construction marsh does not recover to an acceptable level compared to the pre-construction conditions.

Questions regarding this review may be directed to Kate Frew in our Gloucester office at Kate.Frew@mass.gov.

Sincerely,



Daniel J. McKiernan

Director

cc: Joanna Yelen, CZM  
Kaitlyn Shaw, NMFS  
Rachel Crow, Ed Reiner, EPA  
Kate Oetheimer, Boston Conservation Commission  
Steve Ivas, Milton Conservation Commission  
William Keener, Quincy Conservation Commission

#### References

1. Boesch DF, Turner RE. Dependence of fishery species on salt marshes: the role of food and refuge. *Estuaries*. 1984;7: 460–468.
2. Deegan LA, Garritt RH. Evidence for spatial variability in estuarine food webs. *Mar Ecol Prog Ser*. 1997;147: 31–47.
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4. Bertness MD, Ellison AM. Determinants of pattern in a New England salt marsh plant community. *Ecol Monogr*. 1987;57: 129–147.

DM/KF/sd