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August 16, 2023

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ON THE
SINGLE ENVIRONMENTAL IMPACT REPORT

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 : July 10, 2023

Pursuant to the Massachusetts Environmental Policy Act (MEPA; M.G.L. c. 30, ss. 61-62L) and Section 11.08 of the MEPA regulations (301 CMR 11.00), I have reviewed the Single Environmental Impact Report (EIR) and hereby determine that it **adequately and properly** complies with MEPA and its implementing regulations.

Project Description

As described in the Single EIR, 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.

- Slip line: 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 Single EIR, there have been no changes to the project since the Expanded Environmental Notification Form (EENF) filing. 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 Single EIR 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 slip lined 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 previously 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, 14th 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 Single EIR described 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.

Environmental Impacts and Mitigation

According to the Single EIR, 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 as described further below. 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. According to the MassDEP Waterways Program, the Single EIR acknowledges the need for Chapter 91 (c. 91) review/licensing for certain components of the

project but also asserts that portions of the project are exempt.¹ MassDEP Waterways indicates that these issues can be addressed as part of the pre-application and licensing process for c. 91.

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.

Review of the Single EIR

The Single EIR was generally responsive to the Scope on the EENF and included an updated project description, project plans, estimates of the project's impacts with respect to tidelands and wetlands, and an identification of potential measures to mitigate these impacts including a Salt Marsh restoration and monitoring plan and adaptive management actions. It also included a construction schedule and a description of measures to enhance public involvement by EJ populations during the permitting and design phase and prior to and during construction.

Environmental Justice

As noted above, the project site is located within 8 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. The Single EIR notes that the Designated Geographic Area (DGA) for the project is one mile.

The Single EIR provided an update on public outreach conducted for the project. As noted in the Single EIR, MWRA created a project web page (<https://www.mwra.com/projects/water/sec21-22/sec21-22-update.html>) which will be updated as the project design progresses and during the construction phase. The Single EIR included a Draft EJ Outreach Plan (Appendix C) which details planned outreach activities including mailing notices of pre-construction meetings and holding these meetings in each community prior to construction. Flyers will be focused on abutters within 100 ft of the project and will be translated into languages spoken by at least 5% of census tract populations. No comments were

¹ Email from Christine Hopps, MassDEP Waterways to Jennifer Hughes, MEPA Analyst, dated August 11, 2023.

received specifically addressing the EJ Outreach Plan. MWRA intends to finalize and implement the plan following close of MEPA review.

The Single EIR summarized the prior 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 as presented in the EENF. The Single EIR notes that the DPH EJ Tool identifies census tracts and municipalities in which the EJ populations as exhibiting “vulnerable health EJ criteria” as shown in the table below.

Table 2-2 DPH EJ Vulnerable Health Criteria within the DGA

Municipality	Heart Attack Hospitalization Rate greater than 110% statewide average ¹	Childhood Asthma greater than 110% statewide average ¹	Childhood Blood Lead greater than 110% statewide average	Low Birth Rate greater than 110% statewide average
Boston	No	Yes	Yes -for 6 census tracts which all contain BG's meeting EJ Criteria	Yes -for 6 census tracts which all contain BG's meeting EJ Criteria
Milton	No	No	Yes -for 1 census tract which contains BG's meeting EJ Criteria	No
Quincy	No	No	Yes -for 2 census tracts where 1 contains BG's meeting EJ Criteria	Yes -for 6 census tracts which all contain BG's meeting EJ Criteria

The Single EIR indicates that impacts to EJ Populations would be limited to the construction phase of the project with impacts expected to include traffic, air quality, and noise. The Single EIR notes that traffic related impacts will vary in scale depending on the work being performed. Trenching, which consists of open cut construction for the replacement pipe, will cause traffic impacts along Granite Avenue in Milton within the existing right-of-way (ROW). The Single EIR notes that trenching will occur in Section 22 (Segment 1 of which is within an EJ Population) and in Section 22 (Segment 3A (the longest segment) of which is not within an EJ Population). The Proponent states that truck trips associated with these segments (excavator, dump trucks, front end loader) will not cause adverse impacts to EJ populations as truck trips used for construction would be minimal, would not cause a significant increase in local traffic, and would be limited in duration during the construction period. The Single EIR indicates that traffic impacts for access pits associated with slip lining and cleaning and lining will be smaller and interspersed and will occur at several pits at the same time. Work is also expected to be short in duration as construction progresses from pit to pit. To address traffic related impacts including lane closures, altering traffic flow patterns, and road closures/detours, a Traffic Management Plan (TMP) will be developed. As described in the Single EIR, the TMP will include:

- 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, public transit, bicycles, and pedestrian 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;
- Locations where temporary provisions may be made to maintain access to homes and businesses;
- Routing and safeguarding of pedestrian and bicycle traffic;
- Routing of public transit;
- 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

The Single EIR notes that project air quality and noise impacts will be temporary in nature and intermittent and will not be in any location for an extended period of time. To mitigate air quality and greenhouse gas (GHG) impacts, 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. In addition, dust will be controlled at construction sites using appropriate best management practices including street sweeping and watering or covering piles of excavated materials. To reduce noise impacts, the Proponent will require contractors to ensure that equipment is functioning properly and equipped with mufflers or other noise-reducing features. The project will also comply with local City and Town requirements.

Wetland Resources

Wetland resource areas within the project site include areas of Salt Marsh, BVW, IVW, Bank, BLSF, LSCSF, RFA and associated buffer zones of resource areas. As previously described in the EENF, the Section 22 project 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 previously noted, and comments from MassDEP concurred, 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.

The Certificate on the EENF required the Proponent to address comments from the Division of Marine Fisheries (DMF) and CZM which recommended that work in Salt Marsh occur outside the growing season (generally March through November)² to minimize impacts. As described in the Single EIR, proposed work in Salt Marsh includes excavation of access pits to facilitate pipe slip lining and placement of construction mats for construction vehicle access. The Single EIR describes portions of the

² The growing season is the part of the year when soil temperatures are high enough to support biological activity (above biological zero: 41 degrees Fahrenheit or 4 degrees centigrade).

work that must occur when ambient temperatures are above freezing and activities that require the use of water. As shown in the table below, avoiding work in the Salt Marsh during the growing season (see timeline shown in the “Fall start” column) would not provide sufficient time to complete the pipe rehabilitation process before the onset of winter and freezing temperatures (activities 4 and 6 shown in bold in the table require temperatures above freezing). The Single EIR states that work will likely begin in early April 2028 with work in the segments affecting Salt Marsh, both east and west of the Neponset River, occurring in the first two years (west in the first 12 months and east in the following 12 months). As shown in the table below, this would align with a “Spring start,” and would require work in Salt Marsh during the growing season. The Proponent states that expediting work in Salt Marsh areas during the first two years of construction will minimize the overall duration of construction within the ACEC. Comments from CZM state that work associated with the project should avoid adverse impacts on the salt marsh to the maximum extent practicable. The following table compares spring and fall start times for slip lining activities with the durations indicated. Based on this comparison, the “spring start” dates were chosen for the reasons stated above.

Table 3-2 Slip Lining Activities and Durations Comparing Spring and Fall Start Times

Activity	Approximate Duration	Month (Spring Start)	Month (Fall Start)
1. Mobilize to Site – Install timber construction mats	2 Weeks	Mid-April	September
2. Install excavation support & excavate access pits.	1 Month	Mid-May	Mid-September
3. Clean Pipe Interior and Install Steel Slip Lining	2 Months	July	Mid-October
4. Install Grout in Annular Space	2 Weeks	Mid-July	Mid-December
5. Pressure Test Pipeline	2 Weeks	Mid-August	January
6. Cement Mortar Line Inside of New Pipe	2 Weeks	September	Mid-January
7. Install Appurtenances, backfill soils & remove mats	2 Months	End of October	February
<i>Total Duration of Pipeline Rehabilitation</i>	<i>7 Months</i>	<i>April – October</i>	<i>September - February</i>
8. Salt Marsh Restoration, Planting & De-mobilization	1 Month	April – May, following year	April – May

Note: Activities shown in bold require ambient temperatures to be above freezing

Comments from MassDEP on the EENF noted 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. Under both a Spring start and the Fall start, the restoration plantings would be installed in the spring of the growing season immediately following completion of the slip lining process. The Single EIR indicates that an additional advantage of a lag period between the removal of the timber mats and installation of the plantings as shown in the Spring start (mats removed in October and planting in April) is that it provides an opportunity for rebound of the marsh surface prior to confirmation of final grades and plantings in case there has been any subsidence during construction. It is anticipated that the restoration both west and east of the Neponset River would be completed within approximately 1 month.

The Single EIR provides additional information regarding the use of timber construction mats used to provide construction vehicle access over Salt Marsh, indicating that mats are heavy enough that they do not typically float and require anchoring unless the height of the tide (i.e., depth of the water) is greater than 8 inches to 1 foot above the marsh surface. The Proponent states that the height of the tide would not reach these levels in the project area, meaning that anchoring of the timber mats would not be needed. The Single EIR indicates that in the event that floating or shifting of mats becomes a problem or storm tides are predicted, contract documents will require that helical auger type earth anchors with steel cables be used to hold the mats in place. The Single EIR also confirms that all stockpiled soils will be removed from the marsh and stored on plastic sheeting within an upland area at one of the designated staging areas. The material would also be covered by plastic sheeting to minimize generation of any dust and surrounded by erosion controls to prevent sedimentation. The staging areas will be located outside of any wetland resources and no material will be stored within the Salt Marsh or in any areas below the high tide line.

The Single EIR outlines the proposed pre- and post-construction monitoring plans to determine whether any Salt Marsh impacts have occurred; such plans will include pre-construction characterization of the Salt Marsh vegetation on the site. The Proponent indicates that the Restoration Monitoring Plan is based on the monitoring protocols included in the April 2020 Request for Advisory Opinion (March 26, 2020), USACE Compensatory Mitigation Standard Operating Procedures.³ Monitoring will include the establishment of seven transects across the marsh with at least one transect at each access pit. One “control” transect will be located across the access road and salt marsh, but outside of any work areas. The location of the stakes and the elevation of the existing marsh surface along each transect will be determined using standard survey equipment. Transects will be resurveyed every year in the late summer/fall for five growing seasons. This is an increase from the two year monitoring period proposed in the EENF. Monitoring will include characterizing vegetation at each of the transects, surveying for elevation of the marsh surface, documentation of fauna (e.g., mammals, fish, crabs, snails, etc.) and documentation of any invasive species. Photographs will also be taken and data will be compared to pre-construction baseline conditions. Reports will be submitted annually to DCR, MassDEP, USACE and local Conservation Commissions. Comments from the DMF also request copies of these reports. The Single EIR indicates that if monitoring results indicate that the marsh is not adequately recovering to pre-construction conditions, adaptive management measures will be implemented in coordination with the DCR, MassDEP, USACE and local Conservation Commissions. Comments from MassDEP indicate that the Single EIR has incorporated all MassDEP suggestions and states that the Single EIR contains a level of information sufficient for the project to proceed to permitting.

As requested in comments from CZM, the Proponent provided details regarding its leak detection program including monitoring in areas of Salt Marsh. As stated in the Single EIR, the Proponent employs field technicians who continuously monitor the water distribution pipeline for leakage using leak noise amplification systems. The program aims to complete leak detection on 210 miles of the Proponent’s 330 plus miles of pipe on an annual basis. The Single EIR also notes that the Section 22 pipeline with Salt Marsh is supported on a timber pile trestle and encased in concrete which adds structural integrity to the pipeline, which reduces the likelihood that a catastrophic line break would occur in the Salt Marsh segment.

³ <https://www.nae.usace.army.mil/Portals/74/docs/regulatory/Mitigation/Compensatory-Mitigation-SOP-2020.pdf?ver=EWhCrK70ZfmPr--8x0K5Jg%3d%3d>

Chapter 91

As requested in comments from MassDEP Waterways, the Single EIR contained site plans and identified all work within each filled and flowed tideland subject to c. 91 jurisdiction. The Single EIR states that it appears the mean high tide line is approximately coincident with the Marsh Boundary-Seaward line shown in MassGIS data; for the purposes of the Single EIR, this line was used as a proxy for c. 91 jurisdiction. The proponent indicates that the mean high tide line will be confirmed once detailed surveys have been obtained during final design, prior to further coordination with MassDEP Waterways for submission of a license application. The Single EIR indicates the following project areas are subject to c.91 jurisdiction in Section 22:

- Segment 2 (Boston & Milton: flowed tidelands below the mean high tide line at Unnamed Creek 1 and the Neponset River
- Segment 3 (Milton): Flowed tidelands below the mean high tide line at Unnamed Creek 2
- Segment 3A: Filled Tidelands below Historic High Water and Inferred Historic and Contemporary High Water (associated with Unnamed Creek 2 under Granite Avenue)

The EENF previously indicated that 3,100 sf of trenching will occur in Salt Marsh with a dredge volume of approximately 1,400 cubic yards (cy). The Single EIR states that of those impacts 2,750 sf. of temporary impact and 510 cubic yards of dredged materials are within c. 91 jurisdiction. Impacts associated with excavation and dredging are shown in the table below.

Table 3-4 Impacts Within Chapter 91 Jurisdiction

Segment	Station/ Resource	Activity Type	Temporary Impact Area (square feet)	Excavated/ Dredged Materials Volume (cubic yards)
Segment 2 (flowed tidelands)	Station 37+00 Below mean high tide line associated with Unnamed Creek 1	Pipe Access Pit	580	330
		Construction Mats	900	-- (Not applicable)
	Station 48+50 Below mean high tide line associated with Neponset River (west side)	Construction Mats	150	-- (Not applicable)
		Station 53+00 Below mean high tide line associated with Neponset River (east side)	Pipe Access Pit	20
	Construction Mats		720	-- (Not applicable)
Segment 3A (filled tidelands)	(parallel to existing) Station 81+00 Unnamed Creek 2	Open-Cut Trench	380	170
Total Impacts			2,750	510

Comments from MassDEP Waterways previously noted 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 is required to meet the standard at 310 CMR 9.40(1)(b)1. if located within an ACEC. The Single EIR responds to these comments stating that the work to access the existing pipeline in Segment 2 is part of an activity to

repair and maintain the existing structure and is exempt from licensing as a continuation of an existing unauthorized public service project where no unauthorized changes have occurred subsequent to January 1, 1984. The Proponent indicates that work will be confined to the existing footprint, with no significant deviations from the original specifications of the pipeline. The pipeline was constructed in the 1950s and has not undergone any unauthorized changes since then.

The Single EIR states that the project meets the definition of an Infrastructure Crossing Facility per 310 CMR 9.02 and notes that the Alternatives Analysis presented in the EENF showed that the project cannot reasonably be located away from tidelands and has minimized impacts in wetlands and waterways (existing pipe in Salt Marsh to be abandoned with new alignment in Granite Avenue). Comments from MassDEP confirm that the Proponent has presented an alternative analysis that justifies the location and methodologies for stream crossings. Given that the project seeks to refurbish existing infrastructure, I hereby find that the pipeline cannot be reasonably located away from the jurisdictional waterbodies and is therefore water-dependent.

Public Benefits Determination

The project proposes activities within flowed and filled tidelands which are subject to the provisions of *An Act Relative to Licensing Requirements for Certain Tidelands* (2007 Mass. Acts ch. 168), now codified at M.G.L. c. 91, § 18B, and the Public Benefit Determination (PBD) regulations (301 CMR 13.00).⁴ Consistent with Section 8 of the legislation, I must conduct a Public Benefit Review as part of the review of EIR projects located on tidelands that entail new use or modification of an existing use. The Single EIR described the benefits of the project as a public service project intended to ensure access to safe drinking water and will improve the public health of the communities served by the pipeline, many of which are EJ Populations.

The PBD regulations, at 301 CMR 13.04(1), include a presumption that water-dependent projects provide adequate public benefit. As noted above, the project will be required to obtain a c.91 License from MassDEP. As noted above, I have made a determination that the proposed activities would be classified as a water-dependent use project pursuant to the Waterways Regulations at 310 CMR 9.12. For this reason, I find that the Single EIR has demonstrated that the project will have a public benefit in accordance with M.G.L. c. 91, § 18B and 301 CMR 13.00. Thus, this Single EIR Certificate shall serve as the PBD for this project.

Historical and Archaeological Resources

In response to the Certificate on the EENF, the Proponent provides an update on correspondence with the Massachusetts Historical Commission (MHC) noting that no comments or subsequent communications have been received from MHC. The Proponent anticipates that the project is not likely to result in adverse effects to historic or archaeological resources. Should concerns arise, the MWRA will coordinate with MHC to address any avoidance or mitigation measures that may be needed. As described in the EENF, 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).

⁴ Area of Commonwealth tidelands that will be impacted by the project were described in an email sent from Laura Krause (BETA Group, Inc.) to Eva Vaughan (MEPA Office) on June 21, 2023.

Mitigation and Draft Section 61 Findings

The Single EIR provides final mitigation commitments and draft Section 61 Findings for use by Agencies, which are summarized below. The Section 61 Findings should be provided to Participating Agencies to assist in the permitting process and issuance of final Section 61 Findings.

Environmental Justice

- Maintain and update the project webpage throughout the project, including as design progresses and during the construction phase.
- Project documents will be translated into Chinese (Mandarin), Haitian-Creole, Spanish, and Vietnamese and posted on the project webpage.
- Social media platforms and media outlets to reach the intended populations.
- Flyers with project timeline, MWRA and municipal contact information, and pre-construction meeting information will be mailed to residents of project communities, with a focus on abutters within 100' of the project area. Interpretation services will be provided at public meetings.
- Proponent will establish a point of contact at MWRA and within project communities that residents can contact with questions or concerns throughout the project.
- A TMP will be implemented in coordination with municipalities to minimize construction-related traffic impacts, include to vehicular traffic, public transit, bicyclists, and pedestrians.
- Use of BMPs including tire cleaning, covering/watering stockpiles, and securing covers on trucks during material transport to minimize dust and minimize impacts to air quality.
- Compliance with anti-idling regulations (M.G.L. c. 90, § 16A; M.G.L. c. 111, §§ 142A-142M, and 310 C.M.R. 7.11)
- All diesel-powered non-road construction equipment with engine horsepower ratings of 50 and above to be used for 30 or more days over the course of construction will have US EPA verified (or equivalent) emission control devices, such as oxidation catalysts or other comparable technologies (to the extent that they are commercially available) installed on the exhaust system side of the diesel combustion engine.

Wetlands and Waterways/Chapter 91

- Relocation of pipeline alignment for Section 22, Segment 3 into Granite Avenue (Segment 3A) to avoid impacts to wetlands and waterways.
- Project timeline set to expedite the work in the Salt marsh and minimize the overall duration of construction within the ACEC. A spring start for construction is anticipated.
- Saltmarsh restoration will occur in the spring following construction.
- Wetland Restoration Monitoring plan including pre-construction surveys and 5-years of post-construction monitoring to document restoration of disturbed areas.
- Invasive Species Control Plan to avoid and minimize introduction or spread of invasive species due to construction.
- Stormwater Pollution Prevention Plan including implementation of construction-period best management practices (BMP's) such as erosion controls and appropriate dewatering methods to avoid and minimize erosion and sedimentation.
- Groundwater in the trench excavation or access pits will be pumped into a dewatering filter bag laid upon filter fabric and stone and surrounded by straw wattles, or if necessary, into a

sedimentation tank which will then discharge to the filter bag depending on conditions in the field.

- All disturbed areas will be restored and revegetated.
- Construction mats will be used in wetland areas in accordance with USACE BMPs.
- Construction staging and material storage areas located outside of wetlands and waterways

Area of Critical Environmental Concern

- The use of the Granite Avenue alignment for Segment 3A avoids impacts to the salt marsh on the existing alignment in the ACEC between Interstate-93 and the roadway.
- Project timeline set to expedite the work in the Salt marsh and minimize the overall duration of construction within the ACEC. A spring start for construction is anticipated.
- The monitoring plan will include adaptive management actions in the case that post-construction the marsh does not recover to an acceptable level compared to the pre-construction conditions.

Traffic and Transportation

- A TMP will be developed in coordination with municipalities to minimize e construction-related traffic impacts to vehicular traffic, public transit, bicyclists, and pedestrians.

Historic Resources

- Disturbance to the existing granite curbing in the Dorchester-Milton Lower Mills Industrial District (BOS.IL/BOS.TD) will be avoided to the maximum extent possible. If necessary, curbing will be temporarily removed and re-installed in kind post-construction.

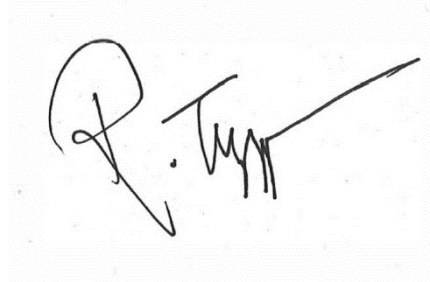
Construction Period

- A TMP will be developed in coordination with municipalities to minimize e construction-related traffic impacts to vehicular traffic, public transit, bicyclists, and pedestrians.
- Tire cleaning areas at construction vehicle entrances and exits.
- Dust control measures including site watering to mitigate wind erosion; street sweeping of adjacent local roadways to address potential sediment accumulation; covering of piles of excavated materials; secured covers on truck cargos during materials transport; and minimization of the free drop height of excavated or aggregate material during earthwork operations.
- contractors will comply with the Massachusetts anti-idling regulations (M.G.L. c. 90, § 16A; M.G.L. c.111, §§ 142A-142M, and 310 C.M.R. 7.11) with regard to the amount of time the vehicles will idle.
- All diesel-powered non-road construction equipment with engine horsepower ratings of 50 and above to be used for 30 or more days over the course of Project construction will have US EPA verified (or equivalent) emission control devices, such as oxidation catalysts or other comparable technologies (to the extent that they are commercially available) installed on the exhaust system side of the diesel combustion engine.
- A Construction Management Plan will be developed and will include measures to reduce construction noise including requiring that construction equipment will be required to have installed and properly operating appropriate noise muffler systems; and construction activities will typically be limited to normal working hours and off-hour work would be minimized.
- All pipe removal waste will be segregated and legally disposed of in regional landfills. Any material which cannot be separated and recycled will be sorted and disposed of in accordance with applicable regulations.

- Any wood, metals, gypsum, cardboard and plastic will be segregated and sent to recycling facilities to the extent practicable.
- All construction debris will be sent to a solid waste sorting facility for separation of any recyclable materials.

Conclusion

Based on a review of the Single EIR, comments letters, and consultation with Agencies, I find that the Single EIR adequately and properly complies with MEPA and its implementing regulations. No further MEPA review is required, and the project may proceed to permitting. Participating Agencies and MWRA should forward copies of the final Section 61 Findings to the MEPA Office for publication in accordance with 301 CMR 11.12.



August 16, 2023

Date

Rebecca L. Tepper

Comments received:


08/02/2023 Coastal Zone Management (CZM)
08/04/2023 Division of Marine Fisheries (DMF) (email)
08/09/2023 MassDEP Northeast Regional Office (NERO)

RLT/JAH/jah



MEMORANDUM

TO: Rebecca L. Tepper, Secretary, EEA
ATTN: Alexander Strysky, MEPA Office
FROM: Lisa Berry Engler, Director, CZM
DATE: August 2, 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 Single Environmental Impact Report (SEIR) noticed in the *Environmental Monitor* dated July 10, 2023, and offers the following comments.

Project Description

The Massachusetts Water Resources Authority (MWRA) existing Section 22 and Section 21 are critical water pipelines that deliver drinking water to and are located in, Boston, Milton, and Quincy, Massachusetts. Section 22 is a critical water pipeline that delivers drinking water to, and is located in, 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 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 consider the following comments:

- All work associated with the project should avoid adverse impacts on the salt marsh to the maximum extent practicable.
- The monitoring protocols described in the RAO are recommended to be used as a guide for post-construction monitoring and adaptive management measures should be taken if the post-construction salt marsh is not functioning at an acceptable level compared to pre-construction conditions.

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, or visit the CZM website at www.mass.gov/federal-consistency-review-program.



LE/sd/jy

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

Hughes, Jennifer (EEA)

From: Frew, Katelyn (FWE)
Sent: Friday, August 4, 2023 2:18 PM
To: Hughes, Jennifer (EEA)
Subject: SEIR EEA# 16633 MWRA

Hi Jennifer,

MA DMF has reviewed the SEIR for the MWRA Section 22 and Section 21 Water Pipeline Rehabilitation project in Boston, Milton, and Quincy. We are pleased to see the included salt marsh restoration and monitoring plans which include detailed success criteria and appropriate adaptive management plans. We request copies of all monitoring plans.

Thank you,
Kate

Kate Frew

Environmental Analyst
MA Division of Marine Fisheries
30 Emerson Avenue
Gloucester, MA 01930





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

Bonnie Heiple
Commissioner

August 9, 2023

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

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

Attn: MEPA Unit

Dear Secretary Tepper:

The Massachusetts Department of Environmental Protection Northeast Regional Office (MassDEP-NERO) has reviewed the Single Environmental Impact Report (SEIR) for the proposed MWRA Section 22 and 21 Water Pipeline Rehabilitation Project in Boston, Quincy and Milton. MassDEP provides the following comments.

Wetlands

As stated in the MassDEP NERO's comments regarding the EENF, "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 comments suggested that the SEIR should specify the schedule for saltmarsh reestablishment and change the monitoring plan from a 2 year to a 5 year period. These suggestions have been incorporated into the SEIR. The SEIR also indicates that adaptive management techniques will be used in the event that salt marsh replication efforts are not initially successful, including replanting

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

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of failed plugs, soil supplements, regrading, incorporation of additional erosion controls if needed, and invasive species management . Therefore, MassDEP is of the opinion that the SEIR contains a level of information sufficient for the project to proceed to permitting.

The MassDEP appreciates the opportunity to comment on this proposed project. Please contact Kristin.Divris@mass.gov at (508) 887-0021 for further information on wetlands issues. If you have any general questions regarding these comments, please contact me at 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, Kristin Divris, Jill Provencal, Phil DiPietro, MassDEP-NERO