APPENDIX

PERMITTING EVALUATION

PERMITTING EVALUATION

The project team prepared a technical memorandum summarizing anticipated permitting requirements for the Boston Planning and Development Agency's ("BPDA's") Dorchester Resilient Waterfront Project and Tenean Beach / Conley Street (the "Project") in the Tenean Beach area of Boston's Dorchester Neighborhood. The background and assumptions in this technical memorandum form the basis for the anticipated permitting requirements summarized below.

Based on the scope of work outlined in these schematic plans, the following jurisdictional and protected resource areas as expected to be impacted by the Project:

- Coastal Beach/Tidal Flat and 100' Buffer Zone
- Coastal Bank and 100' Buffer Zone
- Salt Marsh and 100' Buffer Zone
- Bordering Vegetated Wetlands and 100' Buffer Zone
- 25' Riverfront Area
- Land Subject to Coastal Storm Flowage (and potential Bordering Land Subject to Flooding)
- Coastal Flood Resilience Zone
- Land Subject to Flooding or Inundation
- Waterfront Area
- Neponset River Estuary Area of Critical Environmental Concern
- Filled tidelands
- Waters of the United States

Impacts to these resources areas will require submission of the following regulatory submittals to the applicable municipal, state, and federal agencies:

- Notice of Intent – Boston Conservation Commission
- Site Plan Review – Boston Water and Sewer Commission
- Specific Repairs – Boston Public Improvement Commission
- Environmental Notification Form/ Environmental Impact Report – Executive Office of Energy and Environmental Affairs
- Chapter 91 License Application – Massachusetts Department of Environmental Protection Waterways Program
- 401 Water Quality Certification – Massachusetts Department of Environmental Protection
- Construction Access Permit – Massachusetts Department of Conservation and Recreation
- Pre-Construction Notification Form – United States Army Corps of Engineers
- Federal Consistency Review – Massachusetts Office of Coastal Zone Management
- National Pollutant Discharge Elimination System Stormwater Pollution Prevention Plan – United States Environmental Protection Agency

For a detailed description of the permitting evaluation, see Appendix: Permitting Evaluation

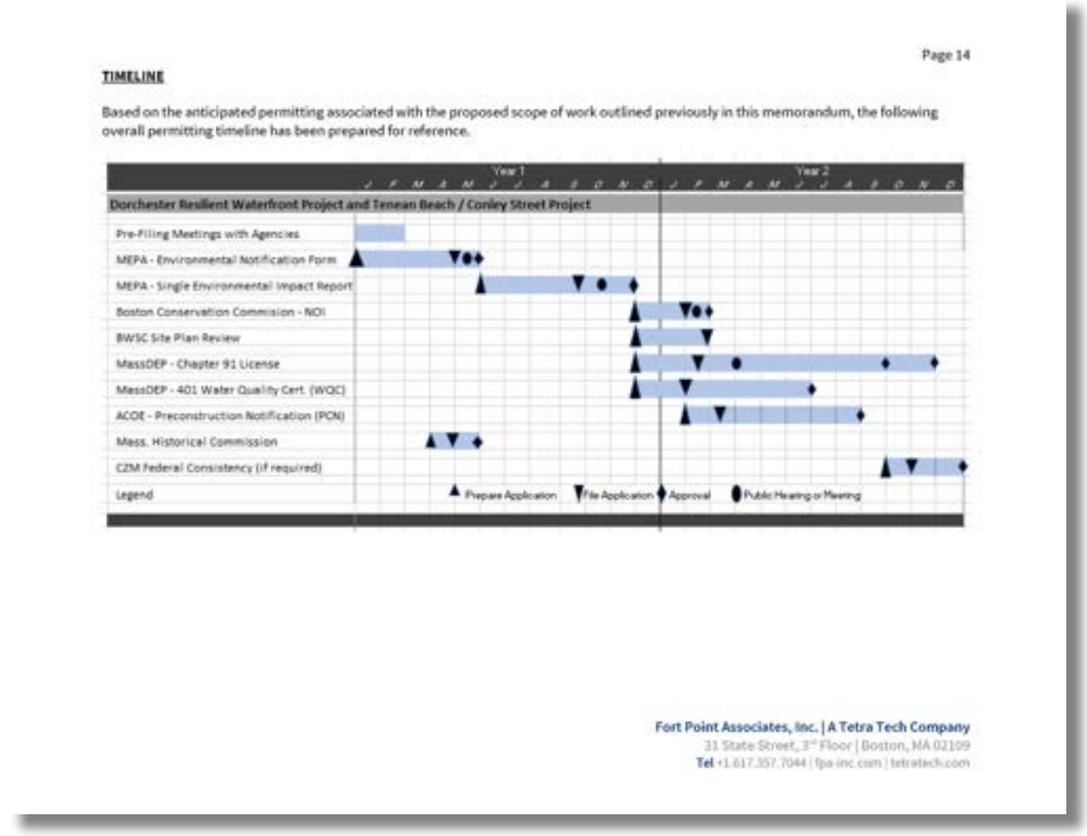


Figure 50: Timeline for permitting , see Appendix: Permitting Evaluation for larger diagram

TETRA TECH

Fort Point Associates, Inc. |
A Tetra Tech Company

Memo

To:	Delaney Morris – Boston Planning & Development Agency Project Manager
Cc:	Linh Pham – Scape Project Manager, Jason Hellendrung – Tetra Tech Project Manager
From:	Katie Moniz – Director of Fort Point Associates, A Tetra Tech Company, Permitting Team
Date:	June 23, 2023
Subject:	Permitting Evaluation for Dorchester Resilient Waterfront Project at Tenean Beach / Conley Street

BACKGROUND & ASSUMPTIONS

The purpose of this memorandum is to summarize anticipated permitting requirements for the Boston Planning and Development Agency's ("BPDA's") Dorchester Resilient Waterfront Project and Tenean Beach / Conley Street (the "Project") in the Tenean Beach area of Boston's Dorchester Neighborhood (the "Project Site"). See Figure 1, Project Locus. The background and assumptions below form the basis for the anticipated permitting requirements summarized in the following sections.

Project Site

The Project Site, which includes approximately 435,600 square feet ("sf") or more than 10 acres in total, consists of open space owned by the Massachusetts Department of Conservation and Recreation ("DCR") and includes a public beach, salt marsh, athletic and passive recreational amenities, a parking lot, and a roadway variously named Conley Street and Tenean Street. Specific amenities include a Harborwalk, playground, basketball court, tennis courts, and picnic shelters. These amenities are distributed across approximately six parcels identified as DCR-owned properties. Parcels and rights-of-way ("ROWs") owned by the City of Boston, Massachusetts Bay Transportation Authority ("MBTA"), and Massachusetts Department of Transportation ("MassDOT") also fall within the Project Site.

The Project Site is bounded by the Southeast Expressway/Interstate-93 embankment (the "Expressway Embankment") to the west, an MBTA maintenance yard to the south, Pine Neck Creek to the east, and the Neponset River to the north. A stormwater outfall and riprap-stabilized shoreline is located at the upstream end of Pine Neck Creek. Access to the Project Site is provided via Tenean Street from the south and Conley Street from the north. The latter accessway passes through an underpass running through the Expressway Embankment. Surrounding land uses include transportation facilities, residential neighborhoods, and light industrial properties of varying types. See Figure 2, Project Site Aerial and Existing Conditions Photographs Key; and Figures 3 through 6, Existing Conditions Photographs.

Areas within one mile of the Project Site are considered a Designated Geographical Area ("DGA") for Environmental Justice ("EJ") Populations in accordance with the Massachusetts Environmental Policy Act ("MEPA") regulations at 301 CMR 11.02. The Project Site is located in Census Block Group 2, Census Tract 1006.03 of Suffolk County, and the EJ criteria of Census Block Groups within the Project Site's DGA include Minority; Income; Minority and Income; Minority and English Isolation; and Minority, Income, and English Isolation. The Project Site has 462 EJ Populations within a five-mile radius and 32 EJ Populations within a one-mile radius. See Figure 7, Environmental Justice Populations (5-Mile Radius) and Figure 8, Environmental Justice Populations (1-Mile Radius).

Initial development of the Project Site predates construction of the Southeast Expressway, which was built between 1954 and 1959. Salt marsh and several tidal creeks comprised the Project site in its natural, predeveloped state. Circa 1914-1918, the City of Boston purchased portions of the Project Site and began filling activities to create a public swimming beach. A bathhouse was constructed around this same time period. Filling and expansion of the site for recreational purposes continued through the early 1930s. Construction of the Southeast Expressway in the 1950s resulted in a large portion of the beach being repurposed for transportation facilities. What remained comprises the present-day Tenean beach, which has been internally reconfigured in the years since the Southeast Expressway project but has seen its overall footprint remain largely unchanged. [1]

Mean high water ("MHW"), high tide line ("HTL"), and base flood elevation ("BFE") at the Project Site are assumed to be approximately El. 4.33, 6.8, and 10-12 NAVD88, respectively. Elevations at the Project Site max out at approximately El 9.0 NAVD88 in inland areas of the park and along Conley Street/Tenean Street, before sloping to higher elevations at the Expressway Embankment. These elevations should be confirmed through field surveys prior to undertaking future Project permitting efforts. See Figure 9, High Tide Line.

The Project Site is prone to tidal and storm surge flooding, with areas between MHW and the inland edge of the parking lot inundated on a reoccurring basis. The majority, or approximately 9.2 acres/401,000 sf, of the Project Site is located within Zone AE (El. 11.0-12.0 NAVD88) as designated by the Federal Emergency Management Agency ("FEMA") in Flood Rate Insurance Map ("FIRM") 25025C0091J, effective March 16, 2016. See Figure 10, Flood Rate Insurance Map 25025C0091J. A flood pathway exists along the section of Conley Street that travels through the Expressway underpass, which increasingly threatens to inundate inland areas west of the Expressway Embankment as the impacts of sea level rise ("SLR") grow in upcoming years.

The Massachusetts Public Waterfront Act Chapter 91 public trust lands include filled and flowed tidelands totaling approximately 53,000 sf, as reflected by the *Tidelands Jurisdiction Data Chapter 91* layers publicly available from Massachusetts Bureau of Geographic Information ("MassGIS") and reviewed in June 2023. This data is intended to be used for planning purposes only, and should be confirmed through review of the historic

[1] This history of development of the Project Site is sourced from review of the book *Gaining Ground: a History of Landmaking in Boston* by local historian Nancy Seasholes and georeferenced historic maps available through the BPDA's *Boston Atlas* and Mapjunction.com.

maps depicting the Project Site in its natural, pre-filling and predevelopment state. All jurisdictional areas within the Project Site on state-owned land (i.e., DCR, MBTA, MassDOT) are considered Commonwealth Tidelands. Three filled tidal creeks and the beach and salt marsh areas below current MHW comprise this area. Structures within jurisdiction may include Conley Street/Tenean Street roadway, the parking lot, a picnic shelter, a small portion of the playground, and portions of the Harborwalk. See Figure 11, Chapter 91 Jurisdiction. There are no known historic Chapter 91 licenses for fill or structures within the Project Site. The Project Site is not located in a Designated Port Area and thus is not subject to requirements for accommodating water-dependent industrial uses under the Chapter 91 Waterways Regulations.

Protected Resource Areas

The extent of resource areas within the Project Site outlined below is sourced from existing, public data available from MassGIS and has not been validated through field delineation. These data sources form the basis for the anticipated permitting requirements summarized in later sections of this memorandum, but should only be relied on for preliminary planning purposes. Field delineation is required to support future permitting efforts.

Wetland Resources

Based on site visits, review of *DEP Wetlands Detailed* GIS layers from MassGIS in June 2023, and review of other publicly available documentation, wetland resource areas protected under the Massachusetts Wetlands Protection Act, M.G.L. Ch. 131 § 40 ("WPA") and the Wetland Protection regulations at 310 CMR 10.00 that may be present at the Project Site include:

- Coastal Beach/Tidal Flat and 100-foot Buffer Zone;
- Coastal Bank and 100-foot Buffer Zone;
- Salt Marsh and 100-foot Buffer zone;
- Bordering Vegetated Wetlands ("BVW")* and 100-foot Buffer Zone;
- Land Under Ocean;
- Land Containing Shellfish;
- Rocky Intertidal Zone;
- 25-foot Riverfront Area**; and
- Land Subject to Coastal Storm Flowage ("LSCSF"); OR
- Bordering Land Subject to Flooding ("BLSF")***

*Though typically only found in Inland Wetlands, the Massachusetts Department of Environmental Protection ("MassDEP") may consider BVW to be present in the higher elevation vegetated areas adjacent to the salt marsh in the southern portion of the Project Site. Field delineation by a professional Wetland Scientist is strongly recommended in advance of conversations with MassDEP to gain a greater understanding of the potential presence of BVW on the Project Site.

**The Project Site includes the Riverfront Area resource area because it is located upriver from the Mouth of Coastal River for the Neponset River, which, as designated by MassDEP and depicted in the MassGIS *Mouth of the River (MOR) Lines* GIS layer, runs between Commercial Point in Dorchester and Squantum Point in Quincy. See Figure 12, Neponset River Mouth of Coastal River. The Riverfront Area may be extended from 25 feet inland from the mean annual high-water line of the river to up to 200 feet in width from that point at the discretion of the Boston Conservation Commission ("BCC") under the local wetlands ordinance.

***Though the Project Site is predominantly part of a coastal floodplain, MassDEP may consider BLSF to be present at the Project Site due to potential flood risk due to upstream flows from the Pine Neck Creek outfall into this riverine channel. Note that FEMA's Flood Insurance Study ("FIS") issued in 2016 did not study potential riverine flood risk in this portion of the Neponset River Estuary and limited its riverine flood studies to riverine system upstream of the Dam at Lower Mills. Conversations with MassDEP are strongly recommended to gain a greater understanding of the potential presence of BLSF on the Project Site.

The City of Boston Wetlands Ordinance, Chapter VII-I-IV, is not enforceable for projects on land owned by state agencies. This memorandum discusses the additional jurisdictional areas established by the Ordinance that also may be present:

- Coastal Flood Resilience Zone,
- Land Subject to Flooding or Inundation, and
- Waterfront Area

See Figure 13, Wetland Resource Areas. As noted above, the data depicted in Figure 13 is sourced from ArcGIS Online web services that were initially accessed from MassGIS in June 2023. Figure 13 only includes data available in the *DEP Wetlands Detailed* data layer and does not include additional wetland resource areas mentioned above.

Areas of Critical Environmental Concern

The Neponset River Estuary Area of Critical Environmental Concern ("ACEC") overlaps approximately 7.8 acres (or 340,000 sf) of the Project Site. See Figure 14, Neponset River Estuary Area of Critical Environmental Concern. As represented in the *Areas of Critical Environmental Concern ACECs* layer from MassGIS as reviewed in June 2023, the ACEC's landward boundary within the Project Site primarily falls along the seaward edge of Conley Street/Tenean Street. Proximate to the upstream end of Pine Neck Creek in the southern portion of the Project Site, the ACEC's boundary extends across the ROW and into the adjacent MBTA maintenance yard. Similarly, the ACEC boundary crosses Conley Street in the northern portion of the Project Site and partially overlaps the Expressway Embankment. A Resource Management Plan ("RMP") for this ACEC was approved in 1996 and references that improvement dredging may not be authorized under the Chapter 91 Waterways regulations at 310 CMR 9.00, within the ACEC. However, the RMP provides for exemptions to this waterway's restriction for improvement

dredging associated with maintenance of the stormwater outfall discharging to Pine Neck Creek as well as sediment removal and re-sanding at Tenean Beach.

Waters of the United States

Both the Neponset River and Pine Neck Creek are navigable waters under Section 10 of the federal Rivers and Harbors Act and are protected as Waters of the United States ("WOTUS") pursuant to the definitions and jurisdictional scope of federal Clean Water Act ("CWA"). The extent of jurisdiction over WOTUS extends to the HTL, which, as described above and depicted in Figure 9, is assumed to be approximately El. 6.8 NAVD88 at the Project Site shoreline. Jurisdiction also extends to adjacent wetlands above that HTL that have a surface water connection with navigable waters at least once during a given year. Contour GIS data sourced from MassGIS in June 2023 indicates that most of the beach, portions of the Harborwalk, the salt marsh and other vegetated areas along Pine Neck Creek, at least one shade structure, and portions of the parking lot all fall within areas that the meet the definition of WOTUS.

Project Description

The Project will provide advanced design solutions to address a near-term (2030) critical flood entry point at Tenean Beach in Dorchester, and is intended to protect adjacent inland areas from current and future coastal flooding associated with SLR by raising the elevation of the Project Site and cutting off the Conley Street flood pathway. It was initially identified in the City of Boston's *Coastal Resilience Solutions for Dorchester* report, released in 2020. The Project is presently in the conceptual design phase and may change during subsequent design refinements.

The Project calls for elevating and relandscaping the Project Site. Portions of the Project Site will be elevated by up to 5 ft to El. 14.0 NAVD88. Beach nourishment will be used to expand the beach inland from its current limit, and a beachgrass-stabilized dune will be introduced at the top of the beach. Construction of a new retaining wall in areas on both sides of the roadway will be required to enable elevation of Conley Street/Tenean Street as it passes along the upstream edge of Pine Neck Creek and the MBTA maintenance yard. The sidewalk along Conley Street/Tenean Street in this area will be expanded to a width of approximately 10 ft, an increase of 5 ft in width as compared to existing conditions. A small length of retaining wall will also be constructed on the seaward side of Conley Street immediately south of the Expressway Embankment underpass. Existing public amenities will be maintained and/or expanded, but some of these features will be reconstructed and their locations reconfigured to enable raising of the Project Site. The Harborwalk and parking lot will be relocated inland from their current locations. The Project also calls for incorporating living shoreline elements immediately inland from the existing salt marsh along the western shore of Pine Neck Creek through regrading and introduction of new salt marsh plantings. The living shoreline is assumed to have an extent of under 1,000 linear feet ("lf"). Replacing water and drain lines running under Conley Street/Tenean Street are anticipated to be included in the Project. See Attachment A, Conceptual Project Plans.

PERMIT SUBMISSIONS

Based on the assumptions described above, the following permit filings are anticipated for the Project.

Local

Notice of Intent – Boston Conservation Commission

A Notice of Intent ("NOI) will be required to be submitted to the BCC for work in coastal resource areas protected under the WPA and Boston Wetlands Ordinance. Field delineation is required to confirm the nature and extent of impacts to wetland resource areas impacted by the different Project components. The proposed elevating and regrading of the Project Site, beach nourishment, installation of retaining walls, living shoreline enhancements and reconfiguration/reconstruction of the overall site layout will all have impacts to resource areas. The Project will be required to comply with the general purposes of the Wetlands Protection regulations outlined at 310 CMR 10.01(2), as well applicable resource area performance standards throughout 310 CMR 10.00. Based on review of conceptual project plans available as of June 2023, the following wetland resource areas protected under the WPA are likely to be impacted by the proposed work:

- Coastal Beach/Tidal Flat and 100' Buffer Zone (beach nourishment and adjacent parkland modifications);
- Coastal Bank and 100' Buffer Zone (majority of Project components);
- 100' Buffer Zone to Salt Marsh (living shoreline, retaining wall along Pine Neck Creek near outfall);
- BVW and 100' Buffer Zone (living shoreline, retaining wall along Pine Neck Creek near outfall);
- 25' Riverfront Area (majority of Project components); and
- LSCSF/BSLF (all Project components)

Additional wetland resource areas established by the Boston Wetlands ordinance that are likely to be impacted by the project include:

- Coastal Flood Resilience Zone (all Project components);
- Land Subject to Flooding or Inundation (likely to overlap LSCF/BLSF jurisdiction under WPA for all Project components); and
- Waterfront Area (beach nourishment; living shoreline; retaining wall along Pine Neck Creek near outfall)

As noted previously, the Boston Wetlands Ordinance is not enforceable for projects on land owned by state agencies.

Projects subject to jurisdiction of the Wetlands Protection Regulations generally cannot decrease the volume or change the form of coastal beaches, 310 CM 10.27(3). However, there is an exemption to this

performance standard for beach nourishment with clean sediment of a grain size compatible with that on the existing beach, 310 CMR 10.27(5).

The beach nourishment and beachgrass-stabilized dune components of the Project will have the biggest impacts to wetland resource areas. This work will expand the extent of the beach as compared to existing conditions and move its current inland limit further inland. The living shoreline component may also result in conversion of BVW to salt marsh as defined under the Wetlands Protection regulations. Both of these Project components may be most suitable for the Ecological Restoration Limited Project permitting pathway.

To qualify for permitting as an Ecological Restoration Limited Project, the proposed work must be determined by BCC to be an Ecological Restoration Project, which is a project whose primary purpose is to restore or otherwise improve the natural capacity of a Resource Area(s) to protect and sustain the interests identified in M.G.L. c. 131, s. 40, when such interests have been degraded or destroyed by anthropogenic influences, 310 CMR 10.04. Ecological Restoration Limited Projects enable permitting of conversion of one resource area protected under the WPA to another, as will likely be necessary for the beach expansion and living shoreline. This proposed work could qualify as Other Ecological Restoration Projects, as they will involve the thinning or planting of vegetation to improve habitat value and fill removal and regrading, 310 CMR 10.24(8)(e)3.

It is noted that MassDEP has recently taken the position that Ecological Restoration Limited Projects cannot involve recreational amenities such as Harborwalks and other public access facilities. Under this circumstance the Harborwalk and other hardscape components of the Project would have to be permitted separately through a traditional NOI. Consultation with MassDEP is strongly recommended prior to Project permitting efforts to gain a greater understanding of whether the Ecological Restoration Limited Project permitting pathway is best approach for the Project.

Notwithstanding strong evidence that flooding on the Project Site is from coastal waters and that the resource area in the flood zone is LSCSF, MassDEP may seek to protect a temporary storage area for flood waters which overtop the bank of the creek by viewing the flood zone as BLSF. As such, the Wetland Protection performance standards would require compensatory storage for fill placed in the flood zone.

Should elements of the Project be viewed as not meeting regulatory performance standards and not qualify as an Ecological Restoration Project or as an Ecological Restoration Limited Project, the Project may need to seek a Superseding Order of Conditions from MassDEP.

Site Plan Review – Boston Water and Sewer Commission

The Boston Water and Sewer Commission ("BWSC") owns and operates the majority of water, wastewater, and storm drain systems in the City of Boston. The Project is subject to site plan review by BWSC for the initial design of proposed utility infrastructure and connections and will then require approval of a General Service Application ("GSA") for modification or connection to BWSC utility

infrastructure by the contractor. Plans and associated design calculations will need to be submitted to BWSC for infrastructure impacted by the proposed work. Additional contractor information and monetary deposit will need to be supplied to initiate a BWSC account and inspection schedule.

Specific Repairs – Boston Public Improvement Commission

The Boston Public Improvement Commission ("PIC") owns and manages ROWs in the City of Boston. The Project is subject to review by the PIC and will require approval from the body for Specific Repairs related to the reconstruction of Tenean Street and a small portion of Conley Street. Tenean Street is owned by the City of Boston, and runs approximately from the intersection with Lawley Street to the south and the northern limit of the MBTA maintenance yard to the north. A small portion of Conley Street underneath and immediately east of the Expressway Overpass is also owned by the City, while majority of the segment running through the Project Site is owned by DCR. Approval for Specific Repairs to the City-owned ROWs will be required from the following City agencies and offices:

- Boston Public Works;
- Boston Transportation Department;
- Inspectional Services Department;
- BWSC;
- Commission for Persons with Disabilities;
- BDPA; and
- Mayor's Office of Neighborhood Services

Plans will need to be submitted to the above-listed entities as well as utility companies that own infrastructure impacted by the proposed work, after which the Project will need to be presented at a new business meeting and public hearing to be approved by the PIC.

State

Massachusetts Environmental Policy Act – Executive Office on Energy and Environmental Affairs

It is anticipated that the Project will trigger full scope Massachusetts Environmental Policy Act ("MEPA") jurisdiction based upon interest in state-owned land (i.e., DCR, MBTA, MassDOT) and potential state funding and/or state agency involvement, 301 CMR 11.01(2)(a)2. Under this scenario an Environmental Notification Form ("ENF") will be required, as well as an Environmental Impact Report ("EIR") because the Project is located in a DGA for EJ Populations, 301 CMR 11.06(7)(b). The Project's location in a DGA requires advance notification of the ENF filing to MEPA-designated Community Based Organizations ("CBOs") and opportunities for the CBOs to have a prefiling meeting regarding the Project. The MEPA Analyst will expect documentation of outreach to the identified EJ Communities beyond the advance notice required by the regulations.

Regardless of the state actions noted above, the Project will at a minimum trigger subject matter jurisdiction and require an ENF and EIR due to triggering the following review thresholds:

Wetlands Waterways and Tidelands: Alteration of coastal dune, barrier beach or coastal bank, 301 CMR 11.03(3)(b)1.a.; alteration of ½ or more acres of any other wetlands, 301 CMR 11.03(3)(b)1.f. These thresholds will be triggered because of the state action of requiring a Chapter 91 License and/or a Water Quality Certificate. Coastal bank is thought to be present at the Project Site, though its location and extent has not been confirmed through field delineation. Expanding the beach inland through beach nourishment will alter coastal bank by moving its location inland and/or replacing it with coastal dune. Additionally, the overall scope of the project will result in alteration of more than ½ acre of any other wetland, at a minimum including LSCSF. The Project may also result in alteration of 5,000 or more sf of bordering or isolated vegetated wetlands, 301 CMR 11.03(3)(b)1.d., if BVW is determined to be present along the edge of the salt marsh adjacent to Pine Neck Creek.

Areas of Critical Environmental Concern: Any Project of ½ or more acres within a designated ACEC, unless the Project consists solely of one single family dwelling, 301 CMR 11.03(11)(b). Most of the Project Site is located within the Neponset River Estuary ACEC, and the scope of the proposed work will exceed the ½ acre review threshold by a large margin.

Massachusetts Historic Commission ("MHC") review will run concurrent to the MEPA review process. MHC is tasked with reviewing projects under the lens of potential impact to state-registered historic properties and places within proximity to the Project. As the Project will not impact a state-registered historic asset, it would be anticipated to receive a letter of "no adverse effect" during this review.

Chapter 91 License Application – Massachusetts Department of Environmental Protection Waterways Program

A Chapter 91 License for the Project may be required for construction, placement, excavation, addition, improvement, maintenance, repair, replacement, reconstruction, demolition or removal of any fill or structures, not previously authorized, or for which a previous grant or license is not presently valid, 310 CMR 9.05(1)(a). Such activities proposed within the scope of the Project include elevating portions of the Project Site, reconfiguring the Harborwalk and parking lot, reconstructing recreational amenities, and reconstructing Conley Street/Tenean Street near Pine Neck Creek and the MBTA maintenance yard by including elevating the ROW, widening the Neponset Trail sidewalk connection adjacent to Pine Neck Creek outfall area, and installing retaining walls. These activities will be within Chapter 91 jurisdiction as they will be undertaken on historically filled Commonwealth Tidelands (classified as such because they are held by the Commonwealth, or by its political subdivisions or a quasi-public agency or authority, in trust for the benefit of the public) but will be above MHW and will not require new fill in flowed tidelands. The proposed retaining wall along the edge of Pine Neck Creek near the existing outfall structure does not appear to have impacts below MHW based on current Project plans, but is within approximately 5 feet of MHW. Beach nourishment below MHW is not proposed in the current conceptual plans for the Project, but, along with introduction of the vegetated berms, may occur over the historically filled tidal creeks running through the Project Site and also be subject to Chapter 91 jurisdiction.

As the intent of the Project is to provide public access to the water's edge, the Project components will be considered water-dependent uses or uses accessory thereto as the Chapter 91 licensing pathway. Water-dependent uses include but are not limited to facilities for water-based recreational activities (310 CMR 9.12(2)(a)3.), pedestrian facilities that promote the use and enjoyment of the water by the general public (310 CMR 9.12(2)(a)4.), beach nourishment (310 CMR 9.12(2)(a)7.), and shore protection structures and associated fill necessary to protect, construct, or expand a water-dependent use (310 CMR 9.12(2)(a)11.). Uses accessory to a water-dependent use include but are not limited to access and interior roadways and parking facilities associated with and necessary to accommodate a principle water-dependent use, 310 CMR 9.12(3)(a).

All of the activities proposed as part of the Project are eligible for licensing according to the categorical restrictions under the Chapter 91 Waterways Regulations. Within ACECs, fill or structures for any use on previously filled tidelands are allowed, 310 CMR 9.32(1)(e)1. Such areas comprise the majority of the Project Site and proposed work. Areas of Conley Street/Tenean Street outside of the ACEC that will be elevated are also permitted as fill or structures for any use of previously filled tidelands, 310 CMR 9.32(1)(a)1. Furthermore, the ACEC RMP provides that improvement dredging associated with the stormwater outfalls at Tenean and Lawley Streets and Pine Neck Creek, and sediment removal and re-sanding at Tenean Beach, have been granted exemptions from the Chapter 91 prohibitions regarding improvement dredging.

The Project is potentially eligible for approval as a Minor Project Modification ("MPM") because it may be exempt from licensing as a continuation of an existing, unauthorized public service project, provided that no unauthorized structural alteration or change in use has occurred subsequent to January , 1984, 310 CMR 9.03(c). MPMs receive streamlined review and approval from MassDEP and avoid licensing requirements. In the context of the Project, the work must be limited to structural alterations which are confined to the existing footprint of the fill or structures being altered and which represent an insignificant deviation from the original specifications in terms of size, configuration, materials, or other relevant design or fabrication parameters, 310 CMR 9.22(3)(1).

The MPM pathway may be applicable to most or all elements of the Project, as the proposed work will occur in areas that have already been filled, introduce no new fill or structures below MHW, and result in no change in uses as compared to existing conditions. The proposed retaining wall near the Pine Neck Creek is the Project component that poses the greater risk making the project ineligible for an MPM depending on how MassDEP Waterways reviews the structural footprint relative to existing conditions. Design of the Project should continue to be refined avoid new structures expanding beyond existing structures over the historically filled tidal creeks.

Consultation with MassDEP and MassDEP review of the Project Plans is recommended to determine whether the Project can be approved as an MPM. If any Project component is deemed ineligible for approval as an MPM for failing to meet the requirements at 310 CMR 9.03(c), a Chapter 91 License Application should be filed for the entire Project.

401 Water Quality Certification – Massachusetts Department of Environmental Protection

Administration of Section 401 of the Clean Water Act, under 33 U.S.C. 1251, has been delegated to MassDEP for state Water Quality Certification ("WQC"). A Section 401 WQC would be required for the discharge of dredged or fill material, dredging, and dredged material disposal activities in waters of the United States within the Commonwealth. The Massachusetts WQC regulations define "dredging" as the removal or repositioning of sediment or other material from below the mean HTL for coastal waters. The 2023 Department of the Army General Permits and Code of Federal Regulations define the term "dredged material" means material that is excavated or dredged from WOTUS, 33 CFR 323.2(c). Section 404 of the Clean Water Act defines the landward limit of jurisdiction as the HTL in tidal waters. Notwithstanding the state regulatory definition of jurisdiction, the WQC regulations indicate that the federal agency issuing a permit initially determines the scope of geographic and activity jurisdiction, 314 CMR 9.02. The HTL (estimated as El. 6.8 NAVD88) at the Project Site reaches across the beach, covering a significant area of the parking lot and along Conley Street at the Pine Neck Creek outfall. Therefore, it is expected that a 401 WQC will be required for Project work . The area of impacts as well as volumes of material to be dredged, moved, or placed should be distinguished and analyzed by the origin or fate of material in relation to HTL, MHW and MLW. The following thresholds determine whether the project may require a WQC application:

- Dredging 100 cubic yards ("cy") or More. Any dredging or dredged material re-use or disposal of 100 cy or greater.
- More than 5,000 sf. Any activity in an area subject to 310 CMR 10.00.
- Any activity resulting in the discharge of dredged or fill material in any salt marsh.
- Individual 404 Permit. Any activity subject to an individual Section 404 permit by the United States Army Corps of Engineers

These thresholds apply except for an Ecological Restoration Project that does not require a WQC application pursuant to 314 CMR 9.03(8).

Placement of fill material for the purposes of beach nourishment does not require an application, provided beach nourishment activities are covered by a Final Order of Conditions issued under M.G.L. c. 131, § 40. Beach nourishment with clean sediment of a grain size compatible with that on the existing beach may be permitted.

Construction Access Permit – Massachusetts Department of Conservation and Recreation

A Construction Access Permit will be required for approval to conduct construction on property owned by DCR. Assuming continued Project coordination between the BPDA and DCR, applying for the Construction Access Permit is expected to be relatively straightforward. Documents that will need to be submitted to DCR include but are not limited to construction and engineering plans, a locus map, existing conditions photographs, a construction schedule, and a traffic management plan.

Federal

Pre-Construction Notification Form – United States Army Corps of Engineers

The United states Army Corps of Engineers (the "Corps") is the permitting authority for structures and activities in navigable waters under Section 10 of the Rivers and Harbors Act of 1899 and the discharge of dredge or fill materials in WOTUS under Section 404 of the Clean Water Act. The Corps jurisdiction extends up to the HTL, estimated at El. 6.8 NAVD88 at the Project Site. On June 2, 2023 the Corps issued 25 General Permits ("GP") for Massachusetts, which are based on the type of activity within jurisdiction and provide categories for streamlined review processes through either a Self-Verification ("SV") or a Preconstruction Notification ("PCN") based on the area or linear footage of impacts. If a project does not qualify for SV or PCN procedures then Corps authorization would proceed through an individual permitting process. Based on the proposed work, the following GPs may apply to the Project:

- *GP-6. UTILITY LINES, OIL OR NATURAL GAS PIPELINES, OUTFALL OR INTAKE STRUCTURES, AND APPURTENANT FEATURES (Authorities: §10 & §404)*
- *GP-7. DREDGING (Authority: §10), DISPOSAL OF DREDGED MATERIAL (Authorities: §10, §404), BEACH NOURISHMENT (Authorities: §10 & §404), ROCK REMOVAL (Authority: §10) AND ROCK RELOCATION (Authorities: §10 & §404);*
- *GP-9. BANK AND SHORELINE STABILIZATION (Authorities: §10 & §404);*
- *GP-10. AQUATIC HABITAT RESTORATION, ENHANCEMENT, AND ESTABLISHMENT ACTIVITIES;*
- *GP-20. LIVING SHORELINES1 (Authorities: §10 and §404); and possibly*
- *GP-22. RESHAPING EXISTING DRAINAGE DITCHES, CONSTRUCTION OF NEW DITCHES, AND MOSQUITO MANAGEMENT (Authorities: §10 and §404)*
- *GP 24. TEMPORARY CONSTRUCTION, ACCESS, AND DEWATERING*

Each of the GPs include a requirement to comply with 46 General Conditions ("GCs"). GC #4 states that the use of more than one GP for a single and complete project is prohibited, except when the acreage loss of WOTUS authorized by the GPs does not exceed the acreage limit of the GPs with the highest specified acreage limit. Below are GP excerpts including relevant coverage and limits of the above referenced GPs.

GP-6 PCN

- *Permanent impacts for any single and complete project that are <½ acre in tidal waters; <1000 SF in saltmarsh, mud flats, riffle and pool complexes, or non-tidal vegetated shallows; or <100 SF in tidal vegetated shallows;*
- *Temporary impacts in tidal waters that are <1 acre; <5,000 SF in saltmarsh, mud flats, or riffle and*
- *pool complexes; or <1,000 SF in vegetated shallows.*

GP-7 PCN

- *New dredging and associated disposal ≤½ acre or <10,000 cy*
- *<1,000 SF permanent impacts to intertidal areas, saltmarsh, mud flats, riffle and pool complexes, or non-tidal vegetated shallows; or <100 SF permanent impacts to tidal vegetated shallows*

- *Beach nourishment in waters of the U.S. not associated with dredging*

GP- 9 PCN

- *Activities in tidal and non-tidal waters that are: a. ≥200 feet to ≤500 feet in total length. Activities >500 feet in total length must have a written waiver from USACE. ≥400 feet to ≤1,000 feet in total length when necessary to protect transportation infrastructure. Activities >1,000 feet in total length must have a written waiver from USACE. >1 cubic yard of fill per linear foot average along the bank waterward of the plane of OHW or HTL. Located in non-tidal wetlands, saltmarsh, vegetated shallows.*
- *Activities with permanent loss of tidal or non-tidal waters that is (a) ≥5,000 SF or (b) ≥1,000 SF in mudflats and natural rocky habitat.*

GP-10 PCN

- *In tidal and non-tidal waters excluding tidal vegetated shallows, the combined permanent and temporary impacts are >5,000 SF*
- *Runneling projects with the purpose of restoring saltmarsh by removing excess water that ponds on the saltmarsh surface.*
- *The conversion of: a stream or natural wetlands to another aquatic habitat type (e.g., stream to wetland or vice versa, wetland to pond, etc.) or uplands, or one wetland type to another (e.g., forested wetland to an emergent wetland).*

GP-20 PCN

- *Tidal and non-tidal living shorelines >100 LF to 200 LF to <1,000 LF, unless waived by the District Engineer*
- *Permanent and temporary impacts in existing salt marsh, tidal vegetated shallows, or mudflats.*

GP-22 PCN

- *Reshape drainage ditch, excavated material is deposited in a water of the U.S., or the reshaping of the ditch increases the drainage capacity beyond the original as-built capacity or expands the area drained by the ditch as originally constructed (i.e., the capacity of the ditch is not the same as originally constructed or drains additional wetlands or other waters of the U.S.).*
- *Stream channelization, relocation, impoundments, or loss of streambed.*

GP-24 PCN

- *In tidal waters, temporary impacts are >5,000 SF; >1,000 SF in mudflats and/or natural rocky habitat, or located in saltmarsh and tidal vegetated shallows.*

To be eligible for a permit, proponents must demonstrate that the Project will avoid, minimize or mitigate impacts. Mitigation is required when there are unavoidable adverse effects to the environment that are considered more than minimal or are contrary to the public interest. The Massachusetts In-Lieu Fee Program ("MA ILFP") is the preferred method of compensatory mitigation in Massachusetts.

Activities that result in net increases in aquatic resource functions in WOTUS associated with the restoration, enhancement, and establishment of tidal and non-tidal aquatic resources are not considered loss and are not subject to the mitigation thresholds. The thresholds for impact mitigation

are as follows: Stream (200 lf), Bank Stabilization (500 lf), Open Water (project dependent), Wetlands - Salt Marsh or BVW (500 sf), Mudflat or Inter-tidal (1,000 sf).

Construction of Solid Fill Structures and Fills Along the Coastline or Baseline from Which the Territorial Sea is Measured are further subject to review by the Solicitor of the Department of the Interior for comments concerning the effects of the proposed work on the outer continental rights of the United States.

Should Project elements exceed the eligibility limitations of the GPs and any waivers, the Corps may authorize the Project through an Individual Permit. The process entails a longer review time and includes a public notice and an Environmental Assessment or Environmental Impact Statement under the National Environmental Policy Act.

Federal Consistency Review – Coastal Zone Management

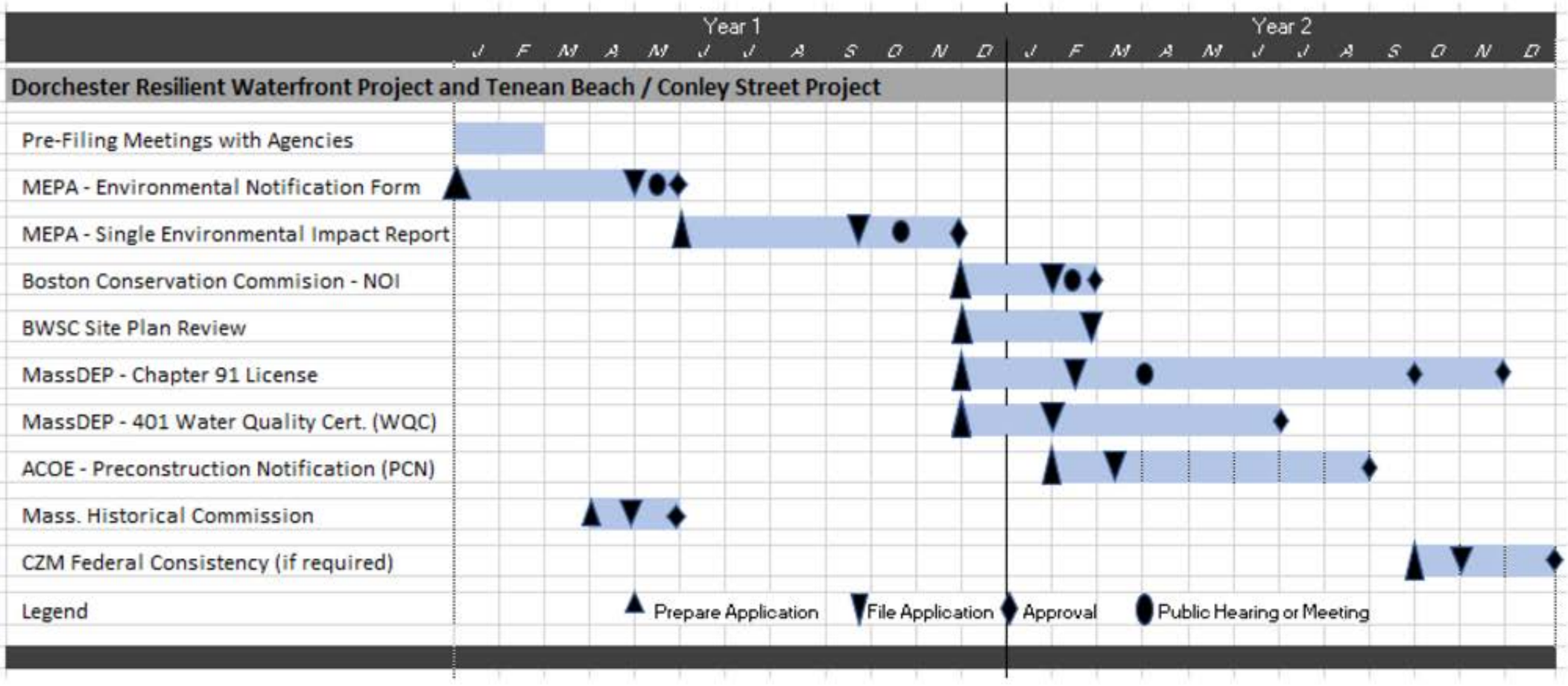
The federal consistency review process is implemented in Massachusetts by the Massachusetts Office of Coastal Zone Management ("CZM"). Projects that are *"in or can reasonably be expected to affect a use or resource of the Massachusetts coastal zone, and/or require federal licenses or permits, receive certain federal funds…"* may be subject to Federal Consistency Review. A pre-application meeting will be required with CZM to review the scope and nature of the Project pursuant to its Corps permits, as well as consideration of the use of federal funds to support the construction of the Project.

National Pollutant Discharge Elimination System Stormwater Pollution Prevention Plan – United States Environmental Protection Agency

Pursuant to Section 402 of the Clean Water Act a National Pollutant Discharge Elimination System ("NPDES") Construction General Permit ("CGP") is required for all construction and dewatering activities that disturb one acre or greater of land and result in a discharge to a WOTUS. The Project is subject to this requirement due to expected disturbance of up to 10 acres as part of the proposed work and its location along Pine Neck Creek and the Neponset River. To receive a CGP under the NPDES program, a Stormwater Pollution Prevention Plan ("SWPPP") must be prepared for the Project and a Notice of Intent must be submitted to the United States Environmental Protection Agency ("EPA"). The intent of a SWPPP is to outline best practices for preventing erosion, sedimentation, and pollution during the construction period. A copy of the SWPPP must be kept on site during construction and all protocols outlined within must be followed during Project construction.

TIMELINE

Based on the anticipated permitting associated with the proposed scope of work outlined previously in this memorandum, the following overall permitting timeline has been prepared for reference.



CONCLUSION

Based on the scope of work outlined previously in this memorandum, the following jurisdictional and protected resource areas as expected to be impacted by the Project:

- Coastal Beach/Tidal Flat and 100' Buffer Zone
- Coastal Bank and 100' Buffer Zone
- Salt Marsh and 100' Buffer Zone
- Bordering Vegetated Wetlands and 100' Buffer Zone
- 25' Riverfront Area
- Land Subject to Coastal Storm Flowage (and potential Bordering Land Subject to Flooding)
- Coastal Flood Resilience Zone
- Land Subject to Flooding or Inundation
- Waterfront Area
- Neponset River Estuary Area of Critical Environmental Concern
- Filled tidelands
- Waters of the United States

Impacts to these resources areas will require submission of the following regulatory submittals to the applicable municipal, state, and federal agencies:

- Notice of Intent – Boston Conservation Commission
- Site Plan Review – Boston Water and Sewer Commission
- Specific Repairs – Boston Public Improvement Commission
- Environmental Notification Form/Environmental Impact Report – Executive Office of Energy and Environmental Affairs
- Chapter 91 License Application – Massachusetts Department of Environmental Protection Waterways Program
- 401 Water Quality Certification – Massachusetts Department of Environmental Protection
- Construction Access Permit – Massachusetts Department of Conservation and Recreation
- Pre-Construction Notification Form – United States Army Corps of Engineers
- Federal Consistency Review – Massachusetts Office of Coastal Zone Management
- National Pollutant Discharge Elimination System Stormwater Pollution Prevention Plan – United States Environmental Protection Agency

Tetra Tech is prepared to support on permitting efforts for the Dorchester Resilient Waterfront Project at Tenean Beach / Conley Street as the BPDA continues to advance this important initiative. Please contact Katie Moniz at kmoniz@fpa-inc.com or (617) 279-4388 with any questions.

FIGURES & ATTACHMENTS

Figures

Attachments

Fort Point Associates, Inc. | A Tetra Tech Company
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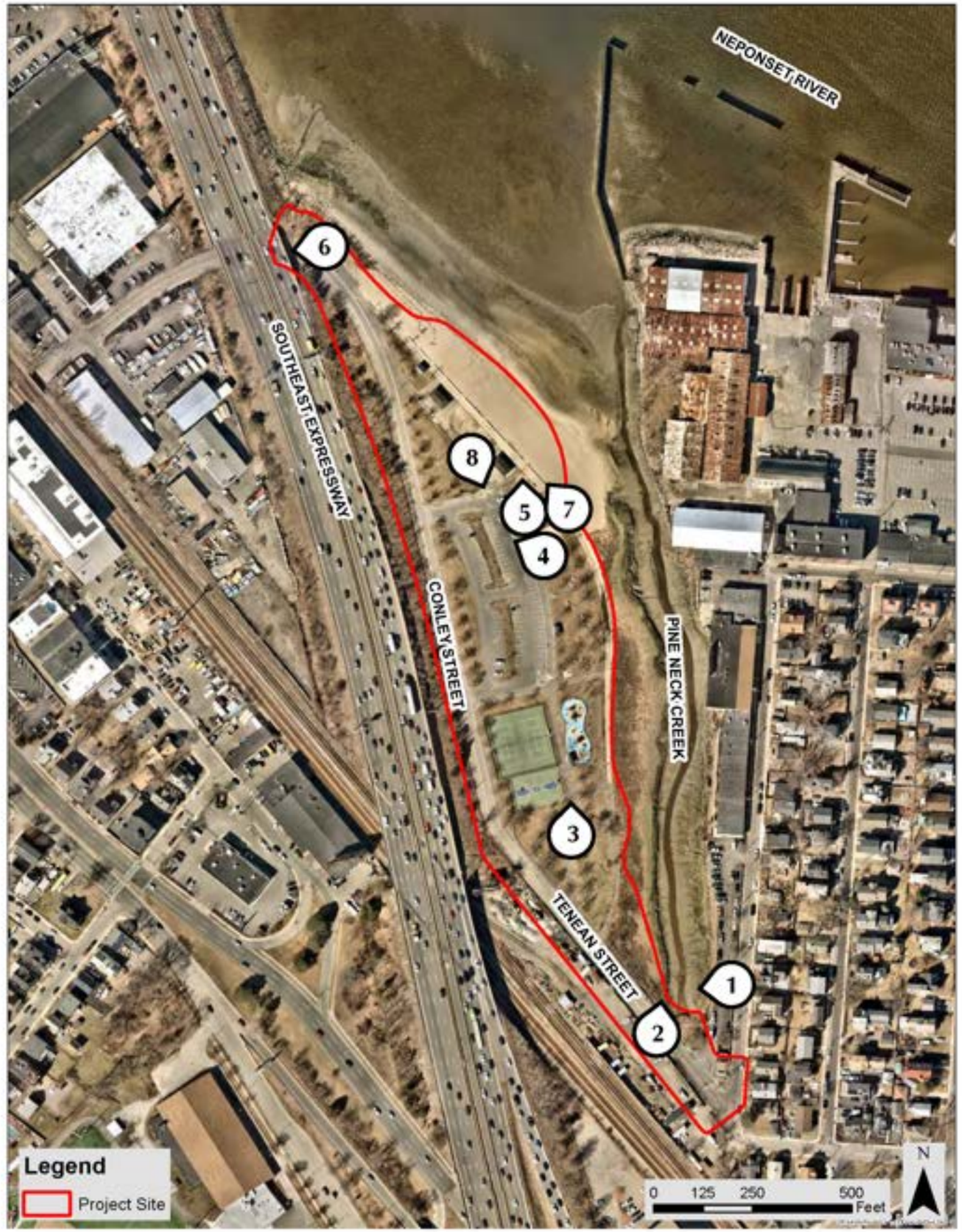
Boston, MA

Figure 1
Locus Map
Source: USGS, 2021



Boston, MA

Figure 2
Project Site Aerial and Existing Conditions Photographs Key
Source: Fort Point Associates, Inc., 2023

Photo 1: View of the Pine Neck Creek outfall, riprap shoreline, and salt marsh with Tenean Street and the MBTA maintenance yard in the background.

Photo 2: View of Pine Neck Creek, and existing retaining wall, and the salt marsh along the edge of Tenean Street.

Photo 3: View of the basketball court, tennis courts, and playground in inland areas of Tenean Beach.

Photo 4: View of the Tenean Beach parking lot with Conley Street in the background.

Photo 5: View of the Harborwalk, a shade structure, and the beach with the Neponset River in the background.

Photo 6: Inland-facing view of Conley Street as it passes through the Expressway underpass/location of the Conley Street flood pathway.

Boston, MA

Figure 5
Existing Conditions Photographs
Source: Fort Point Associates, Inc., 2023

Photo 7: View of the flooded beach and Harborwalk at Tenean Beach during a king tide in February, 2023.

Photo 8: View of the flooded parking lot at Tenean Beach during a king tide in February, 2023.

Boston, MA

Figure 6
Existing Conditions Photographs
Source: Fort Point Associates, Inc., 2023

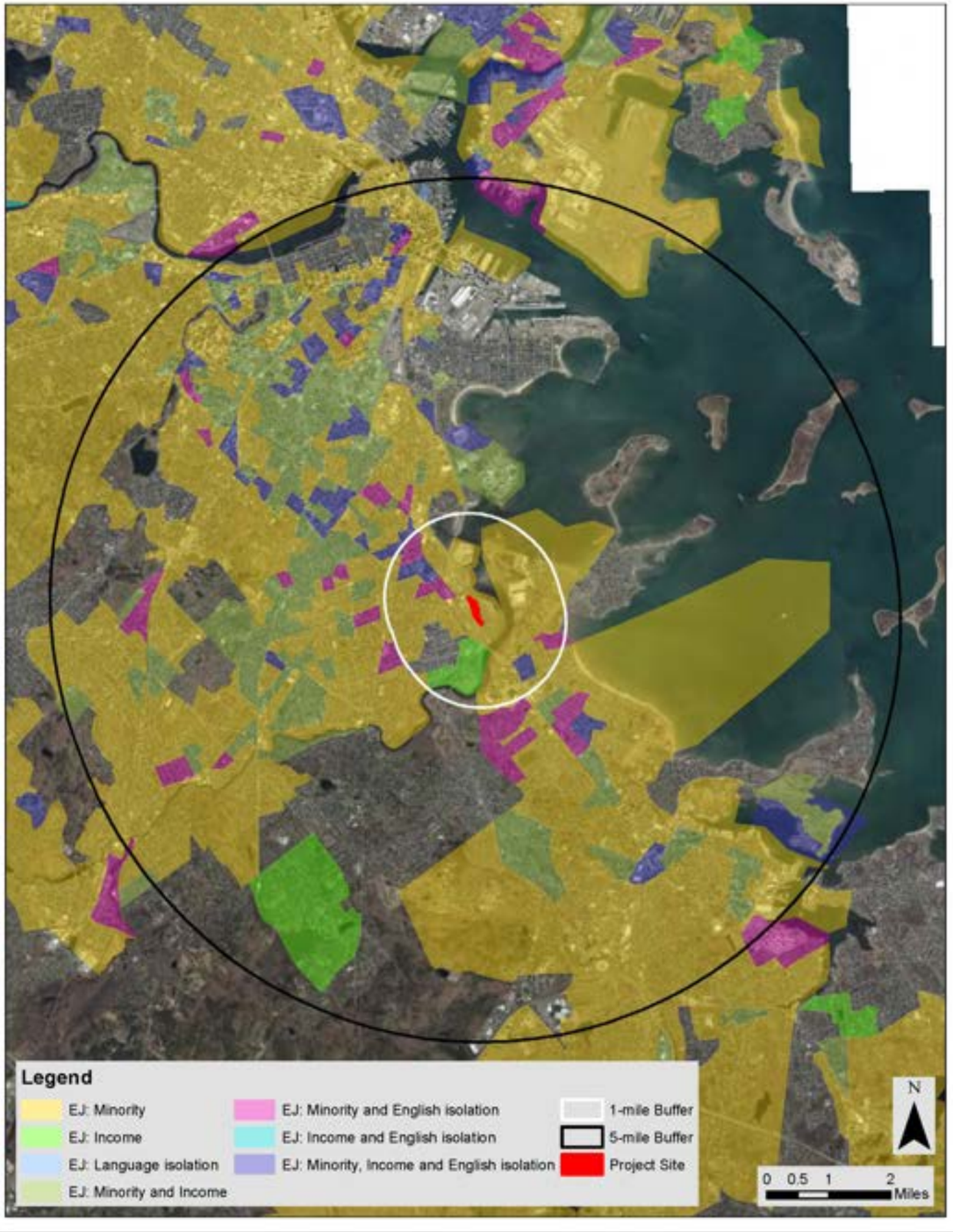


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Figure 7
Environmental Justice Populations (5-Mile Radius)
Source: EEA, 2022; US Census Bureau, 2021

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Figure 8
Environmental Justice Populations (1-Mile Radius)
Source: EEA, 2022; US Census Bureau, 2021

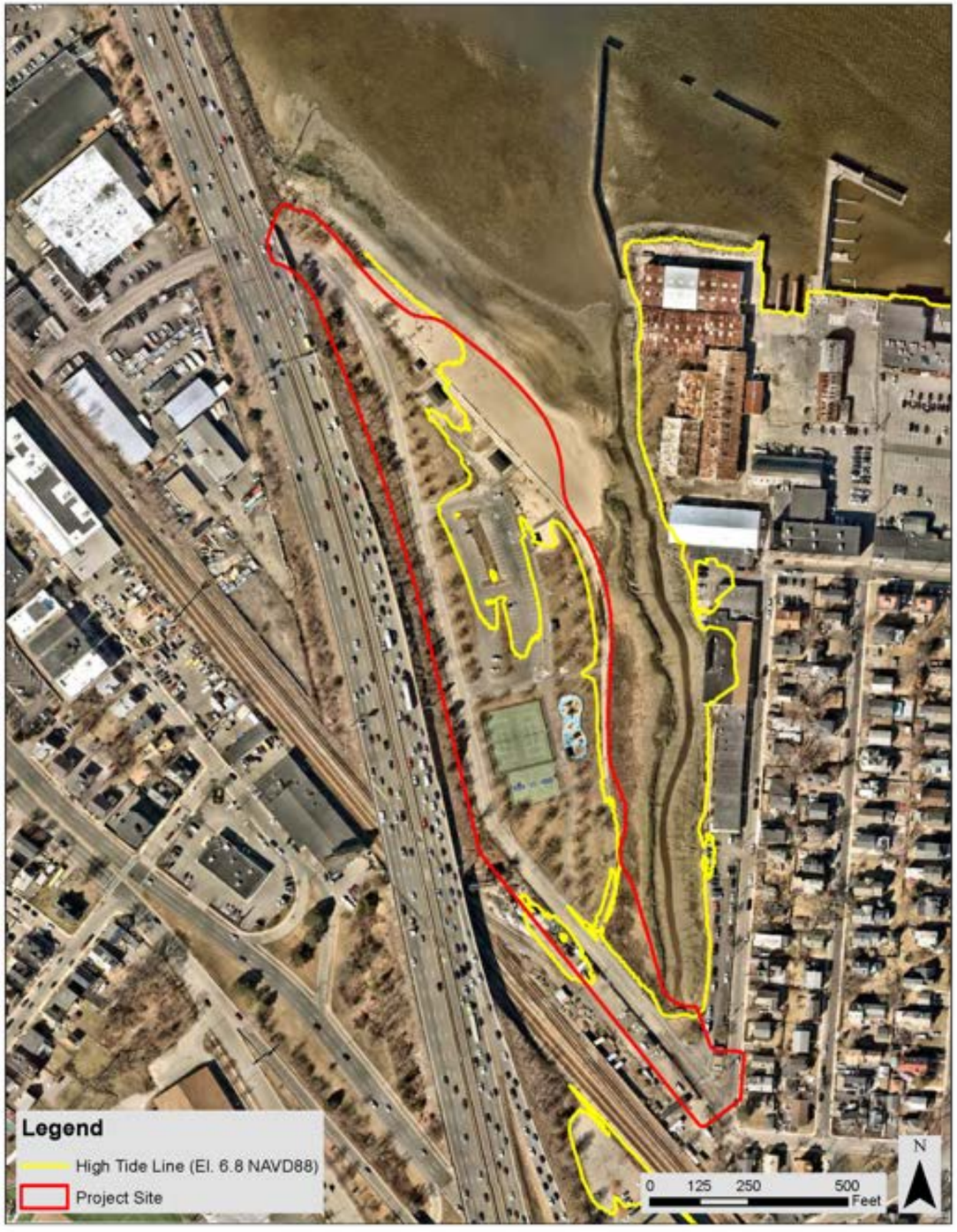

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Figure 9
High Tide Line
Source: MassGIS, 2021

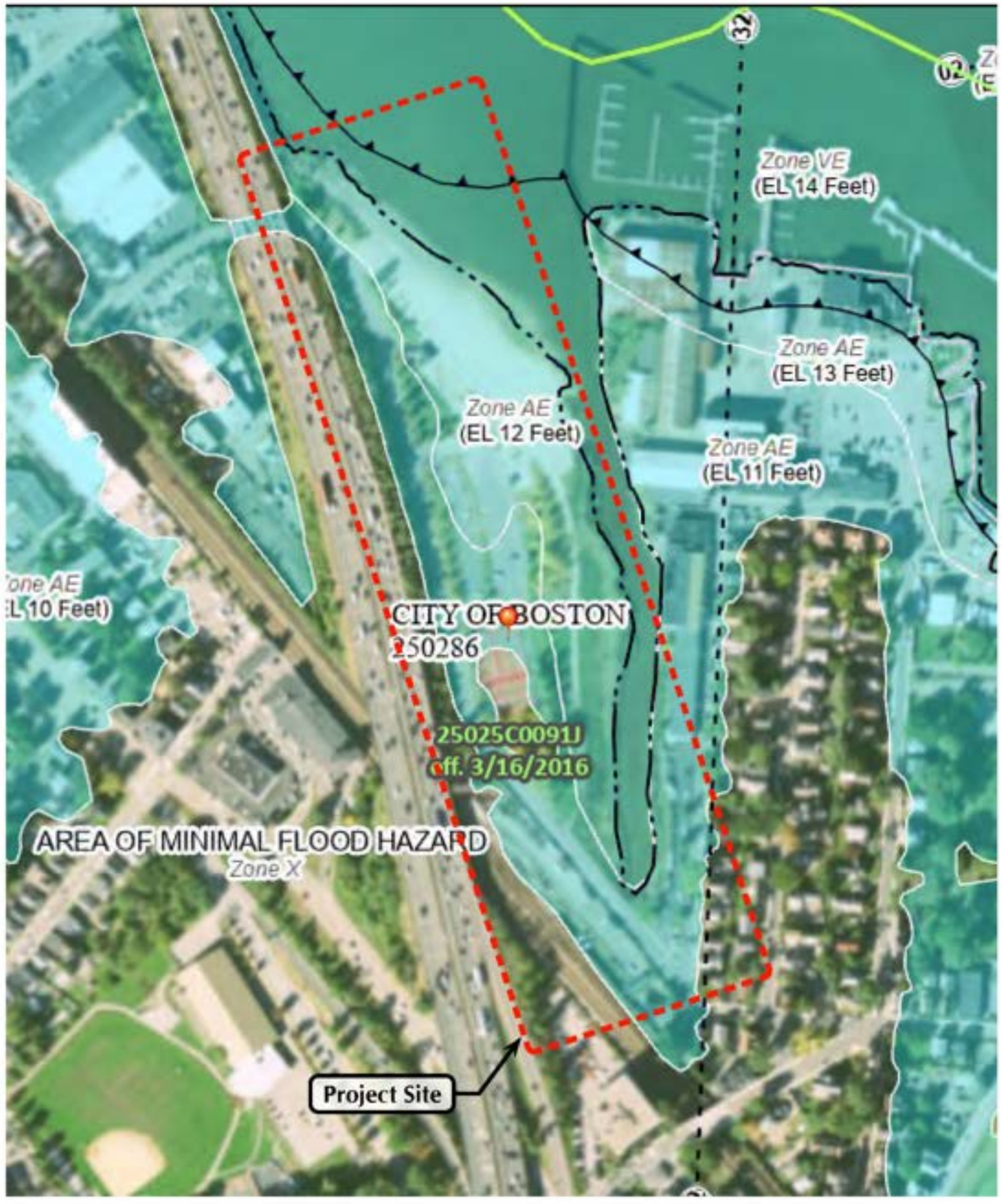

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Figure 10
Flood Rate Insurance Map 25025C0091J
Source: FEMA, 2016

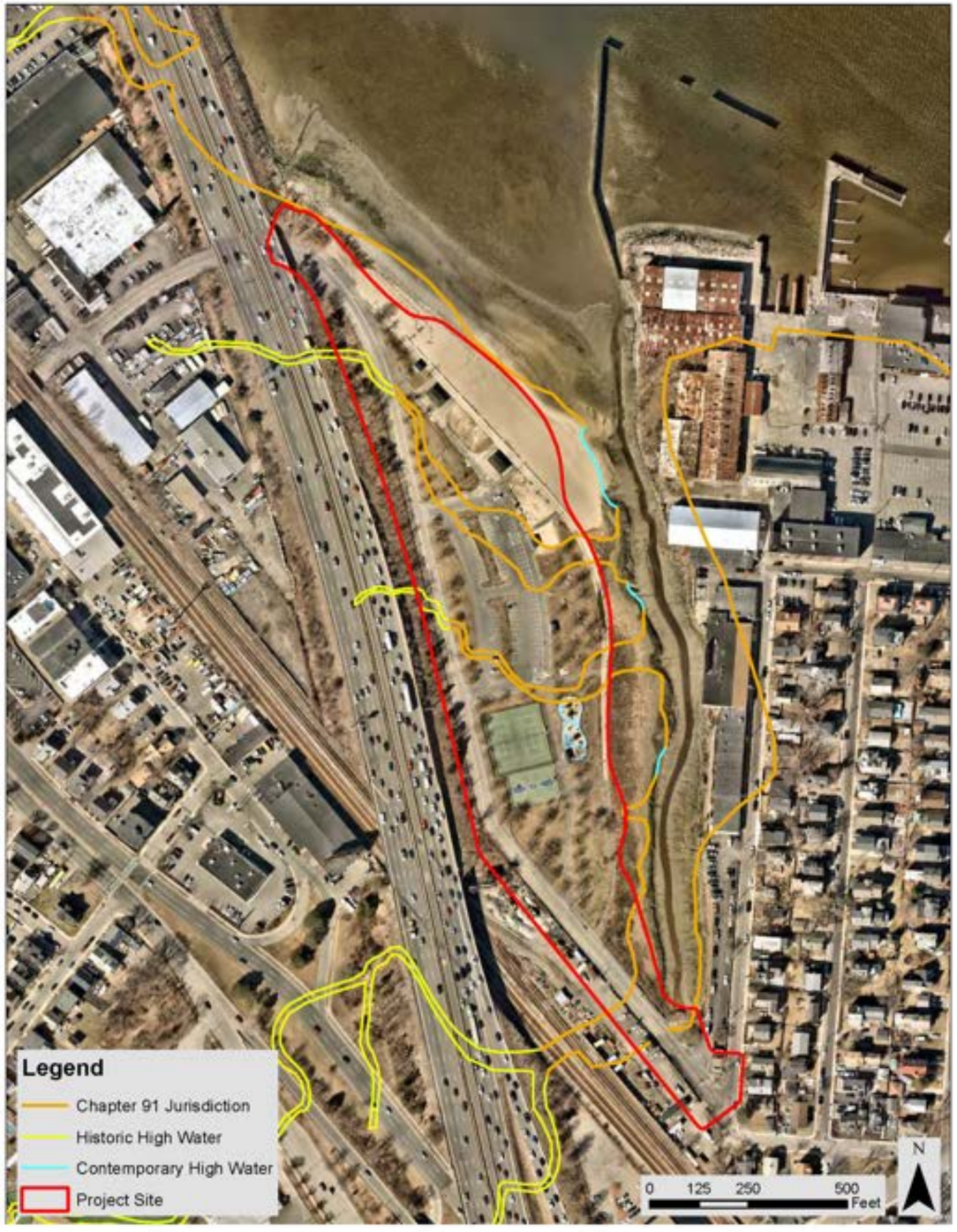

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Figure 11
Chapter 91 Jurisdiction
Source: CZM, 2011

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Figure 12
Neponset River Mouth of Coastal River
Source: MassDEP, 2005

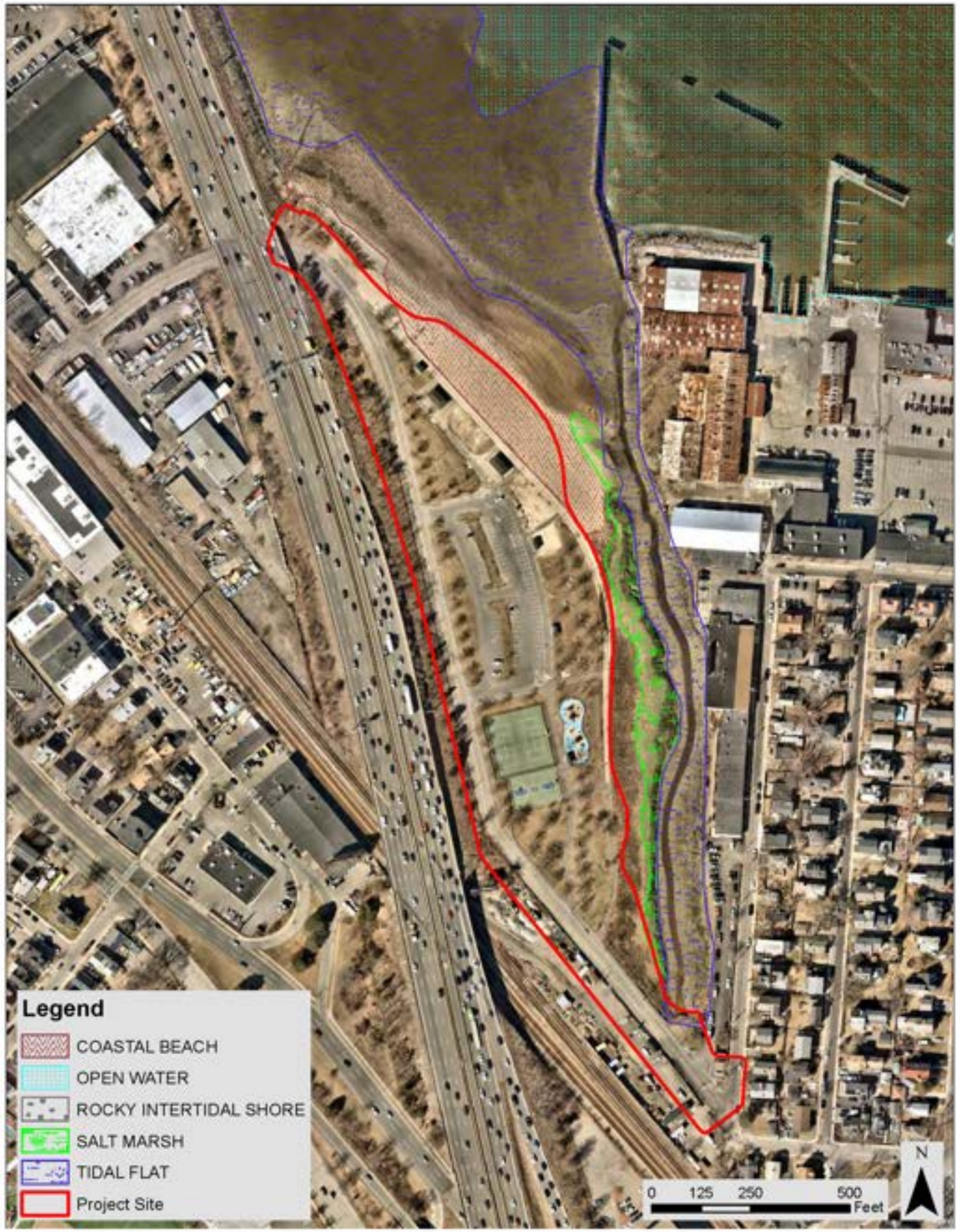

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Figure 13
Wetland Resource Areas
Source: MassDEP, 2017

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Figure 14
Neponset River Estuary Area of Critical Environmental Concern
Source: EEA and DCR, 2009