



Massachusetts Coastal Infrastructure Programmatic Environmental Assessment Compliance Checklist

Nantasket Avenue Seawall Replacement Project

Hull, Plymouth County, Massachusetts

LPDM-PJ-01-MA-2023-001

November 08, 2023



FEMA

**U.S. Department of Homeland Security
Federal Emergency Management Agency, Region 1
220 Binney Street
Cambridge, MA 02142**

I. PROJECT INFORMATION

Coastal Flood and Erosion Mitigation Projects in Massachusetts	Date: 11/08/23
Assessment under the Coastal Flood and Erosion Mitigation Projects Programmatic Environmental Assessment (PEA) and Finding of No Significant Impact (FONSI) <i>*This form is designed to help FEMA review each project to determine if it should be covered by this PEA or whether another level of evaluation would be more suitable, including an SEA, a stand-alone EA, or an environmental impact statement. Project Proponents may also complete this form and submit to FEMA using the address at the end of this checklist.</i>	
Disaster Description and Date: N/A	
Project Name and Project Number: Nantasket Avenue Seawall Replacement Town of Hull, Plymouth County, Massachusetts LPDM-PJ-01-MA-2023-001	
Name and Contact Information of Person Completing this Form: Brandon M Webb, CDM Smith, webbbm@cdmsmith.com, 617.452.6142	

Describe Purpose and Need for Action:

The purpose of the proposed action is to reduce the risk of flood damage and coastal erosion along a section of Nantasket Avenue in Hull, MA, increase resilience against future climate change-related sea level rise, and maintain critical links to the infrastructure, homes and businesses on Pemberton Point. The proposed action is needed because the existing seawall overtops during storm events, is deteriorating and failing due to its age, and erosion is undermining the toe of the wall. The seawall protects a section of Nantasket Avenue, which supports the primary utility connections between Pemberton Point and the rest of the town. Of particular concern is the primary sewer line that carries wastewater from the bulk of the town across to the wastewater treatment plant on Pemberton Point. If the seawall fails and Nantasket Avenue is damaged, the impact on public utilities and public health could be substantial. The proposed action is also needed, as flooding would result in the closure of both Nantasket Avenue and Fitzpatrick Way, which are the only means of emergency access and evacuation for the Pemberton Point area.

Action(s) Proposed:

Hard Engineering Designs

- ☐ Revetments
- ☒ Bulkheads and Seawalls
- ☐ Levees/Berms

- ☐ Groins
- ☐ Wave Attenuators

Bioengineering Measures

- ☐ Bank Regrading/Stabilization
- ☒ Beach/Dune Restoration
- ☐ Marsh and Wetlands Creation, Restoration, or Enhancement

Other proposed activities not included above:

Describe the No Action Alternative:

Under the No Action alternative, there would be no federal financial assistance for a new seawall and other modifications. FEMA anticipates that, owing to the limitations of a small town budget, the proposed flood mitigation work would remain unfunded or be deferred indefinitely. The seawalls along this shoreline are beyond their design life and were identified in the Massachusetts 2013 Coastal Hazard Infrastructure Report as a “High Priority” structure in poor condition. Coastal storm events, worsened by climate change, would continue to damage and overtop the existing seawall, which would eventually cause it to fail. Overtopping or failure of the seawall would result in continued flooding of Nantasket Avenue, local infrastructure damage, and could cause failure of the primary sewer line. This alternative would not meet the overall purpose and need.

Describe the Proposed Action:

The Town of Hull proposes to remove and replace approximately 1,675 feet of seawall between 1033 Nantasket Ave to 948 Nantasket Ave (42.30645, -70.894342 to 42.309635, -70.889991). In most sections, the new seawall would be higher and wider than the existing seawall to provide resilience against coastal flooding.

The proposed project includes the following elements.

- In the southwestern portion near 1033 Nantasket Avenue and the Stony Beach revetment, the Proposed Action would leave the existing wall in place with a top elevation of 18 feet above the mean low water (MLW) elevation and construct a new seawall approximately 11 feet inland to a height of 24.5 feet above MLW elevation. The existing 205 feet of revetment in this area would be removed and replaced, with the revetment toe being moved 2 feet seaward of the existing toe.
- The main portion of the seawall along Nantasket Avenue (from coordinates 42.307034, -70.893653 to 42.309545, -70.890156) would be cut down to half its current height and a new seawall would be built approximately 11 feet inland to a height of 22.5 feet above MLW elevation. Nantasket Avenue would be raised to a height of 18 feet above MLW elevation and reduced to a one-way one-lane road to make room for the new seawall. Vehicle access would continue to be primarily along Fitzpatrick Way. The gap between the two seawalls would be filled with 4- to 5-ton armor stones. Geotextile and stone would be added to the base of the existing seawall and the beach along this stretch would be renourished where needed.
- The eastern portion of the seawall near 948 Nantasket Avenue and the Point Allerton seawall would be removed and rebuilt with a top elevation of 24.5 above MLW elevation, raising the wall 3 feet.

- A 6-foot separate extension of the wall that abuts the 948 Nantasket Avenue would be removed. This section of wall would not be replaced.
- The Proposed Action would include beach nourishment along the seaward face of the seawall where beach elevation over any 100-foot length is lowered from 6 to 12 inches. Placement of fill would likely be up to 1,000 cubic yards of fill every year in an area that extends from the face of the revetment on the seaward side to approximately 10 feet seaward. Fill material consisting of cobbles, gravel, and small boulders would be placed up to 3 feet deep as needed, depending on erosion.
- Other project elements include relocating utility poles and power lines to the lagoon side of Nantasket Avenue by the electric company and revegetating the side of the road with native salt marsh plants.
- Equipment used during construction of the Proposed Action would include an excavator and dump truck.
- The new seawall would be constructed from the landward side of the existing seawall except for the shore section near the northeastern end. Excavation for the toe of the revetment would be performed by equipment on the beach. Demolition of the existing seawalls at each end of the beach would allow access ramps to be constructed into the shoreline for the short duration access is necessary. Armor stone would be placed by equipment operating from the landward side of the existing wall.
- Once work is completed, periodic beach monitoring surveys would be performed on an annual basis and any areas where the average beach elevation is lowered by 6 inches for an extended length of time would be renourished.

Describe Public/Agency Involvement to Date (if any):

PEA Public Notice:

The draft PEA was made available for agency and public review and comment for a period of 30 days, from September 15, 2022, to October 15, 2022. An electronic copy was made available for review on FEMA's National Environmental Policy Act Repository at: <https://www.fema.gov/emergency-managers/practitioners/environmental-historic/nepa-repository>.

FEMA also sent a notification regarding the availability of the draft PEA for review and comment to the agencies who received the scoping document and published a Notice of Availability to the below newspapers.

Newspaper	Date NOA Published
Cape Cod Times	Wednesday – September 14, 2022
Taunton Daily Gazette	Wednesday – September 14, 2022
Bedford Standard Times	Wednesday – September 14, 2022
Boston Herald	Sunday – September 11, 2022
Herald Citizen	Thursday – September 15, 2022
Fall River Herald	Tuesday – September 13, 2022
The Daily News of Newburyport	Wednesday – September 14, 2022

Newspaper	Date NOA Published
Patriot Ledger	Wednesday – September 14, 2022
Gloucester Daily Times	Wednesday – September 14, 2022
Salem News	Wednesday – September 14, 2022

Public meetings:

Public input was solicited as part of the design and permitting process for this project. A public information/engagement meeting regarding the project was first held by the Town and GEI on August 25, 2020. Public input was solicited as part of the Office of Energy and Environmental Affairs (EEA) Environmental Notification Form (ENF) process including a pre-application (virtual) meeting on June 14, 2021, and a Massachusetts Environmental Policy Act (MEPA) agency meeting (virtual) on January 19, 2022. Finally, a public hearing was held on May 24, 2022, by the Hull Conservation Commission to hear the Notice of Intent application as part of the Wetlands Protection Act filing, which was subsequently approved on May 26, 2022.

Consultations:

Section 106 consultation with the Massachusetts State Historic Preservation Officer (SHPO), the Tribal Historic Preservation Officers (THPOs) of the Mashpee Wampanog Tribe, the Narragansett Indian Tribe, and the Wampanog Tribe of Gay Head (Aquinnah) is in process. FEMA anticipates a determination of "No Historic Properties Effectuated" or "No Adverse Effect."

FEMA initiated consultation with the National Oceanic and Atmospheric Administration National Marine Fisheries Service (NMFS) on September 26, 2023, for Essential Fish Habitat (EFH). FEMA is currently coordinating with NMFS and USACE to resolve conservation recommendations. FEMA anticipates the proposed action would have minimal effect on EFH-designated species and their habitat with the application of conservation recommendations previously provided to USACE.

FEMA coordinated with the United States Fish and Wildlife Service (USFWS) under Section 7 of the Endangered Species Act (ESA) on September 11, 2023, using the Information for Planning and Consultation (IPaC) system and made a 'No Effect' determination for Roseate tern (*Sterna dougalli dougalli*).

FEMA made a 'No Effect' determination for ESA-listed northern long-eared bat (*Myotis septentrionalis*); the project would not require tree removal and is located in an area where NLEB are unlikely to occur.

FEMA made a 'No Effect' determination for ESA-listed marine species: Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*), Shortnose sturgeon (*Acipenser brevirostrum*), Green sea turtle (*Chelonia mydas*), Kemp's ridley sea turtle (*Lepidochelys kempii*), Leatherback sea turtle (*Dermochelys coriacea*), and North Atlantic right whale (*Eubalaena glacialis*) habitat. As work would be done in the dry and any sediments from the work would be minimized by following BMPs and permit conditions, there would be no effect on marine ESA species.

List Required Permits, Approvals, or Authorizations and Status of Each:

Federal

- U.S. Army Corps of Engineers (USACE) Section 404 permit
 - GEI Consultants (on behalf of the Town of Hull) filed a USACE application on June 20, 2022. USACE determined that the project was eligible for authorization under the Massachusetts Programmatic General Permits (PGP), approval in process.
- Coastal Zone Management (CZM) Federal Coastal Consistency review is required per the MEPA ENF certificate.
- FEMA Flood Insurance Rate Map (FIRM) change and request Letter of [Flood] Map Revision (LOMR) in accordance with 44 C.F.R. Parts 65.3 and 9.11(d)(6) must be initiated by the Applicant within six (6) months of project completion.

State

- 401 Water Quality Certification (WQC) & Chapter 91 license
 - GEI Consultants (on behalf of the Town of Hull) filed a combined Chapter 91/401 WQC application with the Massachusetts Department of Environmental Protection (MassDEP) on June 20, 2022.
 - The public notice period is complete, and the one comment received has been addressed, permit issuance pending.
- Order of Conditions (OOC)
 - GEI Consultants (on behalf of the Town of Hull) filed a Notice of Intent (NOI) with the Town of Hull Conservation Commission (in agreement with MassDEP) on April 27, 2022.
 - OOC (MassDEP File #SE35-1680) was issued on May 26, 2022.
 - **Status:** current (expires May 26, 2025)
- ENF MEPA Certificate
 - GEI Consultants (on behalf of the Town of Hull) filed an ENF with the EEA on February 7, 2022.
 - An EEA ENF MEPA certificate (EEA Number 16517) was issued on February 14, 2022.
 - EEA has determined that the project does not require an Environmental Impact Report.

Local

- Review and approval by the local floodplain development administrator or issuance of a local floodplain development permit that demonstrates that the Proposed Action is consistent with the criteria of the National Flood Insurance Program (44 C.F.R. part 59 et seq.) or any more restrictive federal, state, or local floodplain management standards (44 C.F.R. 9.11(d)(6)) is required and the town must comply with all terms and conditions of the issued permit.

II. ANALYSIS OF ENVIRONMENTAL CONSEQUENCES

For each resource, confirm that the potential effects of the proposed project are described in the PEA and that mitigation measures described in the PEA will be applied to the project. Review the Additional Impacts Questionnaire (Section III) and document any additional impacts and proposed mitigation for those additional impacts. Determine whether the combination of potential effects described in the PEA and any additional impacts would result in significant impacts after mitigation measures are applied. Review the thresholds found in Table 6.1 of the PEA and determine whether the PEA would apply. If there are additional impacts related to a particular resource, a Supplemental EA (SEA) may still need to be prepared even if the PEA thresholds are not exceeded. An SEA may focus on only the resource(s) with the additional impacts.

Resource	Document Project Effects and Mitigation that Conform with PEA	Document Additional Impacts <i>*See Section III. Additional Impact Questionnaire</i>	Describe Mitigation for Additional Effects and/or Results of Consultations (if Applicable)	Would Mitigation and/or Consultation Reduce Effects to a Less than Significant Level? (Yes/No)	Does PEA Coverage Apply? (Yes/No)
Geology, Topography, and Soils	Minimal ground disturbance would occur at the staging area along Nantasket Avenue. Depth of ground disturbance would be up to approximately 2 feet for the seawall replacement work. The vast majority of the project area is previously disturbed and the pervious surface would be slightly net negative as a result of the project, further reducing impacts. The project area is an urbanized area as defined by the 2010 Census Urban Area Reference Maps and therefore is exempt from the Farmland Protection Policy Act.	None	The Town would implement applicable best management practices (BMPs) and conditions as described in all required permits to minimize construction impacts.	Yes; in accordance with BMPs and conditions as required in permits and the PEA. This includes a coastal sediment transport impact analysis for the revetment.	Yes

Resource	Document Project Effects and Mitigation that Conform with PEA	Document Additional Impacts <i>*See Section III. Additional Impact Questionnaire</i>	Describe Mitigation for Additional Effects and/or Results of Consultations (if Applicable)	Would Mitigation and/or Consultation Reduce Effects to a Less than Significant Level? (Yes/No)	Does PEA Coverage Apply? (Yes/No)
Air Quality	The Proposed Action is in Plymouth County, which is currently in attainment for all criteria pollutants. Minor short-term impacts would be anticipated from the operation of vehicles and equipment to construct the project and nourish the beach. There would be no long-term air quality impacts from operation of the seawall or revetment, or the raising of the roadway. The annual beach nourishment would require the use of dump trucks to transport the fill, which would have a negligible impact on air quality.	None	None	Not applicable	Yes
Climate Change	The Proposed Action would have negligible short-term impacts related to greenhouse gas emissions from the operation of vehicles and equipment during construction. The Proposed Action would increase the height and depth of the seawall and the revetment, protecting Nantasket Avenue and the Allerton Lagoon from climate change-related flooding and coastal erosion, increasing resilience against sea level rise and increased storm surges.	None	None	Not applicable	Yes

Resource	Document Project Effects and Mitigation that Conform with PEA	Document Additional Impacts <i>*See Section III. Additional Impact Questionnaire</i>	Describe Mitigation for Additional Effects and/or Results of Consultations (if Applicable)	Would Mitigation and/or Consultation Reduce Effects to a Less than Significant Level? (Yes/No)	Does PEA Coverage Apply? (Yes/No)
Water Quality	Any construction below the high tide line would be conducted during low tides. Impacts on water quality would be minimized by complying with all permit conditions and implementing BMPs. Therefore, there would be a short-term negligible impact on water quality. In the long-term, the new revetment and armor stones would reduce the potential for sediment to enter the water, which would have a minor beneficial effect on water quality.	None	Comply with all BMPs and conditions listed in the MassDEP Chapter 91 waterway license, OOC, 401 water quality certification, and the USACE Section 404 permit.	Yes, in accordance with BMPs and conditions as required in permits.	Yes
Floodplains	The project area is within Zones AE, AO, and VE as shown on Flood Insurance Rate Map (FIRM) panel 25023C0017J, dated July 17, 2012. The 8-step review process was conducted in compliance with Executive Order 11988 and the Proposed Action is the only practicable alternative.	None	Compliance with all BMPs and conditions in the local floodplain development permit would reduce potential impacts on the floodplain. The Applicant must submit an application to FEMA for a Letter of Map Revision (LOMR) with 6 months of project completion.	Yes, in accordance with BMPs and conditions as required in permits.	Yes
Wetlands	According to the National Wetlands Inventory map and the underlying aerial photography, a portion of the project area is within estuarine and marine wetlands. Impacts on wetlands would be minimized by following all permit conditions, having a negligible impact.	None	Comply with all BMPs and conditions of required permits such as MassDEP Chapter 91 waterway permit, OOC, 401 water quality certification, and the USACE Section 404 permit.	Yes, in accordance with BMPs and conditions as required in permits.	Yes
Wild and Scenic Rivers	The closest Wild and Scenic River is Taunton Wild And Scenic River, which is 22 miles southwest of the proposed project site. Based on the distance to the project, implementation of this project would have no direct or adverse impacts on Wild and Scenic Rivers.	None	None	Not Applicable	Yes

Resource	Document Project Effects and Mitigation that Conform with PEA	Document Additional Impacts <i>*See Section III. Additional Impact Questionnaire</i>	Describe Mitigation for Additional Effects and/or Results of Consultations (if Applicable)	Would Mitigation and/or Consultation Reduce Effects to a Less than Significant Level? (Yes/No)	Does PEA Coverage Apply? (Yes/No)
Navigation	The deepened/heightened seawall and extended revetment would not extend into any navigation channel. Therefore, the proposed project would not have an impact on navigation.	None	None	Not applicable.	Yes
Coastal Zone Management Act	According to the Massachusetts CZM map, the Proposed Action is within the Massachusetts Coastal Zone. A favorable Coastal Zone Consistency Determination would be required.	None	Compliance with all conditions and BMPs from the Coastal Zone Consistency Determination would ensure the project is consistent with Massachusetts coastal policy described in the <i>Massachusetts Coastal Management Policy Guide</i> .	Yes; consultation is required with MA CZM. Concurrence that the project is consistent with the state coastal zone management plan is required as a condition of the grant.	Yes
Coastal Barrier Resource Act	According to the United States Fish and Wildlife Service (USFWS) Coastal Barrier Resource Act map, the Proposed Action is not in or near a Coastal Barrier Resource System Unit or an Otherwise Protected Area, and therefore, would have no impact.	None	None	Not applicable	Yes
Vegetation	Some roadside grasses, shrubs, and potentially invasive species on either side of Nantasket Avenue would be removed. Once work is completed, the lagoon side of Nantasket Avenue would be replanted with native species. Though there would be a net loss of vegetation in the area, the removal of invasive species and the planting of native plants would mitigate the loss by enriching the vegetation habitat that remains, having a long-term minor benefit. Per MassMapper there are no known seagrass beds near the project area.	None	None	Not applicable	Yes

Resource	Document Project Effects and Mitigation that Conform with PEA	Document Additional Impacts <i>*See Section III. Additional Impact Questionnaire</i>	Describe Mitigation for Additional Effects and/or Results of Consultations (if Applicable)	Would Mitigation and/or Consultation Reduce Effects to a Less than Significant Level? (Yes/No)	Does PEA Coverage Apply? (Yes/No)
Fish and Wildlife	The majority of the project is on and adjacent to an existing roadway and would not disturb any wildlife species not otherwise adapted to roadway activity. The upland habitat consists of ruderal vegetation in a narrow strip along the pavement and would provide very minimal habitat for terrestrial wildlife. Therefore, there would be a negligible impact on wildlife during construction. Disturbed areas would be revegetated with native vegetation providing a negligible benefit in the long term. During the MEPA process, the proposed project was reviewed by the Massachusetts Division of Marine Fisheries who provided recommendations for avoidance, minimization, and mitigation of impacts from the proposed work. Compliance with all required permit conditions, including restricting in-water work to low tide, would minimize potential impacts on fish species and have a negligible impact.	None	The ENF MEPA cert recommends the following BMPs: Sequence silt- and noise-producing activities (i.e., dredging and machinery access seaward of the existing seawall) so that work occurs during low tide and that sediments be stabilized prior to inundation to protect fisheries and shellfish species.	Yes, in accordance with BMPs provided by MA Division of Marine Fisheries.	Yes
Invasive Species	The Proposed project would remove some vegetation that could include invasive species. The disturbed area would be replanted with native plants post-construction, resulting in a long-term minor benefit by reducing invasive species in the area.	None	Replant the area with native vegetation.	Yes, area would be replanted with native plants.	Yes

Resource	Document Project Effects and Mitigation that Conform with PEA	Document Additional Impacts <i>*See Section III. Additional Impact Questionnaire</i>	Describe Mitigation for Additional Effects and/or Results of Consultations (if Applicable)	Would Mitigation and/or Consultation Reduce Effects to a Less than Significant Level? (Yes/No)	Does PEA Coverage Apply? (Yes/No)
Threatened and Endangered Species	According to USFWS IPaC the Northern long-eared bat (<i>myotis septentrionalis</i>) and the Roseate tern (<i>sterna dougallii dougallii</i>) have the potential to occur in the area. There are no trees that could be used for roosting or hibernacula in or near the project area; therefore, there would be no effect on the Northern long eared bat. Roseate tern generally nests on sandy, gravelly, or rocky islands and, less commonly, in small numbers at the ends of long barrier beaches. As the project area does not include this habitat type, there would be no effect on the Roseate tern. According to the NMFS ESA Section 7 Mapper the project area is located adjacent to Atlantic sturgeon (<i>Acipenser oxyrinchus oxyrinchus</i>), Shortnose sturgeon (<i>Acipenser brevirostrum</i>), Green sea turtle (<i>Chelonia mydas</i>), Kemp's ridley sea turtle (<i>Lepidochelys kempii</i>), Leatherback sea turtle (<i>Dermochelys coriacea</i>), and North Atlantic right whale (<i>Eubalaena glacialis</i>) habitat. As work would be done in the dry and any sediments from the work would be minimized following BMPs and permit conditions, there would be no effect on Marine ESA species.	None	None	Not Applicable	Yes

Resource	Document Project Effects and Mitigation that Conform with PEA	Document Additional Impacts <i>*See Section III. Additional Impact Questionnaire</i>	Describe Mitigation for Additional Effects and/or Results of Consultations (if Applicable)	Would Mitigation and/or Consultation Reduce Effects to a Less than Significant Level? (Yes/No)	Does PEA Coverage Apply? (Yes/No)
Essential Fish Habitat	The project area is within EFH that may be impacted by project related construction activities. FEMA initiated consultation with NMFS on September 26, 2023, FEMA is currently coordinating with NMFS and USACE to resolve conservation recommendations. FEMA anticipates the proposed action would have minimal effect on EFH-designated species and their habitat with the application of conservation recommendations. An updated record of the consultation process will be included in the Finding of No Significant Impact (FONSI).	None Anticipated	Compliance with conservation recommendations would minimize impacts on EFH.	Yes Conservation measures will be updated and included as conditions in the FONSI.	Yes (anticipated)
Cultural Resources	Section 106 consultation with the Massachusetts SHPO and THPOs of the Mashpee Wampanog Tribe, Narragansett Indian Tribe, and the Wampanog Tribe of Gay Head (Aquinnah) is in process. FEMA anticipates a determination of "No Historic Properties Effectuated" or "No Adverse Effect." An updated record of coordination with NMFS and USACE will be included in the FONSI.	None Anticipated	Compliance with inadvertent discovery conditions included in the Section 106 Consultation would be expected to avoid any potential impacts to historic properties.	Yes, project conditions included in the Section 106 consultation would be expected to avoid impacts to potentially unknown historic resources encountered during construction.	Yes (anticipated)
Land Use and Zoning	The Proposed Action would not result in temporary or permanent changes in land use or cause a conflict with the local zoning ordinance or a general plan; therefore, there would be no effect on land use or zoning. The Town would be responsible for compliance with any local ordinances and plans and obtain any required conditional use permits, zoning variances, or other legal requirements.	None	None	Not Applicable	Yes

Resource	Document Project Effects and Mitigation that Conform with PEA	Document Additional Impacts <i>*See Section III. Additional Impact Questionnaire</i>	Describe Mitigation for Additional Effects and/or Results of Consultations (if Applicable)	Would Mitigation and/or Consultation Reduce Effects to a Less than Significant Level? (Yes/No)	Does PEA Coverage Apply? (Yes/No)
Noise	Noise-sensitive environments within and near the project area include residential and quiet outdoor areas used for recreation (e.g., the lagoon and accompanying club houses). Construction activities and the use of heavy equipment for the Proposed Action would result in short-term, temporary increases in ambient noise levels in the project area impacting these noise-sensitive environments. However, as long as construction activities comply with all federal, state, and local noise regulations, there would be only a minor short-term impact on noise levels in the area. In the long-term, equipment used for annual beach nourishment would create a reoccurring short-term minor impact to noise levels in the area.	None	All construction activities must conform to federal, state, and local noise regulations.	Yes, construction activities must conform to local noise ordinances.	Yes
Traffic and Transportation	The Proposed Action would incur short-term moderate impacts due to the closure of Nantasket Avenue from Fitzpatrick Way to Point Allerton for the duration of the construction period. Contractor is to provide all required traffic management equipment and signage. Short-term negligible impacts would also be incurred by construction-related traffic and movement of equipment and materials. The Proposed Action would incur long-term minor impacts on traffic due to the permanent closure of one lane of traffic on Nantasket Avenue. Traffic would be redirected onto the adjacent Fitzpatrick Way.	None	Comply with all permit conditions and BMPs such as appropriate routing of equipment and construction detour signage. Develop and implement a traffic management plan	Yes, apply impact minimization measures in potential traffic management plan.	Yes

Resource	Document Project Effects and Mitigation that Conform with PEA	Document Additional Impacts <i>*See Section III. Additional Impact Questionnaire</i>	Describe Mitigation for Additional Effects and/or Results of Consultations (if Applicable)	Would Mitigation and/or Consultation Reduce Effects to a Less than Significant Level? (Yes/No)	Does PEA Coverage Apply? (Yes/No)
Public services and Utilities	The Proposed Action includes the removal and relocation of 15 overhead power and telecom utility poles by the area electric provider. Line relocation would be done in a manner to ensure power outages do not occur, having no short-term impact. The Proposed Action would have long-term moderate benefits as the new seawall would better protect the existing water, wastewater, and gas utility lines that run along the southern side of Nantasket Avenue. Moving the electrical line to the landward side of Nantasket Avenue would increase the resilience of the electrical utilities.	None	None	Not Applicable	Yes
Public Health and Safety	Construction would hinder emergency services transport through Nantasket Avenue, but would result in only a minor short-term impact as that traffic would be rerouted through the nearby Fitzpatrick Way. Implementation of the project would benefit public health and safety in the long-term by increasing the resilience of the utility and transportation network against storm events and coastal flooding and erosion.	None	None	Not Applicable	Yes

Resource	Document Project Effects and Mitigation that Conform with PEA	Document Additional Impacts <i>*See Section III. Additional Impact Questionnaire</i>	Describe Mitigation for Additional Effects and/or Results of Consultations (if Applicable)	Would Mitigation and/or Consultation Reduce Effects to a Less than Significant Level? (Yes/No)	Does PEA Coverage Apply? (Yes/No)
Environmental Justice	There are no low-income or minority populations within or adjacent to the project area. Therefore, the Proposed Action would have no disproportionate and adverse effect on EJ populations. Work would be done within the roadway and beach area and would not impact any nearby EJ populations because impacts related to noise, traffic, and air quality would be localized.	None	None	Not Applicable	Yes
Hazardous Materials	Construction would require the use of motorized equipment and vehicles, which could result in the accidental release of petroleum-based hazardous materials. The Proposed Action would have long-term moderate benefits as the proposed higher seawall would reduce the potential for flood and erosion damage to the primary sewer line that could release wastewater to the environment if damaged. According to EPA's NEPAAssist and Mass DEP Activity and Use Limitations mapper there are no CERCLA, Brownfields, Toxic Release, or Use limited sites within 0.5 miles of the project area.	None	If hazardous materials (or evidence thereof) are discovered during the implementation of the project, the Town must handle, manage, and dispose of petroleum products, hazardous materials, and/or toxic waste in accordance with applicable local, state, and federal regulations. During construction, the Town and/or their Contractor must notify MassDEP of any sudden release or spill of any chemical (either oil or hazardous material), that exceeds the threshold for a Reportable Quantity in compliance with the Massachusetts cleanup regulations (310 CMR 40.1600). The Massachusetts Oil and Hazardous Materials List (MOHML) provides the levels that trigger notification to MassDEP. Copies of correspondence with MassDEP must be forwarded to the state and FEMA for inclusion in the administrative record.	No	Yes

III. ADDITIONAL POTENTIAL EFFECTS QUESTIONNAIRE

Additional effects may include 1) exceedance of thresholds described in this questionnaire and/or 2) effects not covered by the PEA and don't exceed thresholds. The questions below are designed to help identify any potential additional effects. If the answer to a given question is 'Yes', additional impacts may occur and should be described in an attachment and summarized in Section II.

If additional impacts not fully described in the PEA may occur, then an SEA, an EA, or an EIS might need to be prepared. An SEA may be a brief document focusing on only the specific additional impact(s) identified.

Geology, Topography, and Soils

Would the proposed project impact a shoreline with exposed bedrock? **No**

Would the proposed project have an adverse effect on soils protected by the Farmland Policy Protection Act? **No**

Would the proposed project cause downdrift erosion or deposition of sediments across jurisdictional boundaries?¹ **No**

Air Quality

Would the proposed project result in new long-term source(s) of air emissions? **No**

Is the proposed project in a nonattainment or maintenance area using the latest EPA Greenbook status? **No**

Would the proposed project involve many truck trips or a long duration of heavy equipment operation? **Yes**

If yes to both, a determination on whether the proposed project would exceed *de minimis* thresholds should be performed.²

Climate

Would the proposed project result in new long-term source(s) of greenhouse gas emissions? **No**

Would the project release more than 25,000 metric tons of greenhouse gases per year?³ **No**

Water Quality

Would the proposed project cause or contribute to long-term impacts on water quality? **No**

¹ Cross-jurisdictional impacts from downdrift erosion may occur in cases where a jurisdictional boundary is located downstream from the proposed project area at a distance of less than four times the length of the proposed shore-parallel structure (if a seawall, bulkhead, or revetment) or five times the length of a proposed shore-perpendicular structure (if a groin, jetty, or breakwater).

² The prescribed *de minimis* annual rates are less than 50 tons of volatile organic compounds (VOCs), 100 tons of nitrogen oxides (NOX) (O3 precursors), and 100 tons of PM2.5, SO2, or NOX (PM2.5 and precursors).

³ For example, a project that would involve many truck trips or a long duration of heavy equipment operation may approach air emissions thresholds.

Would the proposed project impact water quality in such a way that TMDLs would be exceeded? **No**

Would the proposed project require compensatory mitigation under Clean Water Act Section 404 regulations? **No**

Is the proposed project over any designated sole source aquifer? **No**

If yes, what potential effects to the aquifer would occur from the project? **N/A**

Floodplains

Would the proposed project adversely affect floodplains as determined through the 8-step process? **No**

If yes, would state and federal regulatory agencies likely require compensatory mitigation for those adverse effects? Would the proposed project adversely impact floodplain outside of the project area? **N/A**

Wetlands

Would the proposed project adversely affect wetlands as determined through the 8-step process? **No**

If yes, would state and federal regulatory agencies likely require compensatory mitigation for those adverse effects? **N/A**

Would the proposed project indirectly impact wetlands through the separation of tidal wetlands from oceanic and tidal influence? **No**

Would the proposed project result in the loss of downdrift wetlands? **No**

Wild and Scenic Rivers

Would the proposed project have a potential effect on water quality or water resources, visual and scenic resources, and/or vegetation, fish, and wildlife habitats within a Wild and Scenic Rivers area? **No**

Navigation thresholds

Would the proposed project have long-term impacts on navigation other than those associated with breakwaters, groins, or jetties?⁴ **No**

Would a structure be placed in or immediately adjacent to a navigation channel that could interfere with navigation? **No**

Coastal Resources

Would the proposed project have a permanent adverse effect on coastal resources inconsistent with MA CZM policies? **No**

Would the proposed project have an adverse effect on Coastal Barrier Resource Systems or Otherwise Protected Areas? **No**

⁴ A project may have additional adverse effects on navigation if project activities or structures would obstruct navigation channels or navigational aids, even in the short term.

Vegetation

Would the proposed project have an adverse effect such that it would reduce populations levels of native species or sufficient habitat would not remain to maintain the viability of all vegetation species in the project area? **No**

Fish and Wildlife

Would the proposed project have an adverse effect such that it would reduce populations levels of native species or sufficient habitat would not remain to maintain the viability of all fish and wildlife species in the project area? **No**

Would the proposed project affect Bald Eagle nesting areas or winter roosts? **No**

Would vegetation be removed during the migratory bird nesting/breeding season? **No**

Threatened and Endangered Species

Would the determination of effect under Section 7 of the Endangered Species Act be “may affect, likely to adversely affect?” **No**

Cultural Resources

Has FEMA made, or is it expected to make, an Adverse Effect determination that would be resolved through state-specific Programmatic Agreement Treatment Measures or a memorandum of understanding with the SHPO, THPO, or other consulting parties? **No**

Land Use and Zoning

Is the proposed project or location inconsistent with existing land use policies and plans? **No**

Would the project result in effects such that a community would need to revise its land use plan (e.g., revise the zoning to increase setbacks to account for downdrift erosion)? **No**

Noise

Would the proposed project generate new long-term source(s) of noise? **No**

Would the proposed project require pile driving? **No**

If yes, are the piles being driven with an impact or vibratory hammer; and would the noise impacts be more than moderate after mitigation measures are employed? **See above and comment**

Traffic and Transportation

Would the proposed project have long-term impact(s) on traffic and transportation? **Yes, Nantasket Avenue would be reduced from a two lane to a one lane road with traffic being diverted to the nearby road Fitzpatrick Way.**

Public Services and Utilities

Would the proposed project have long-term impact(s) on public services and utilities, including a permanent loss or major rerouting of utilities? **No**

Public Health and Safety

Would the proposed project have long-term adverse effects on public health and safety, such as a permanent source of emissions or permanent reduction of water quality? **No**

Environmental Justice

Is there an environmental justice population in or adjacent to the proposed project area and would there be adverse impacts on those populations such that outreach and coordination to resolve potential adverse impacts would be required? **No**

Hazardous Materials

Would the proposed project involve the release of hazardous materials? **No**

Has a phase I or II environmental site assessment indicated that contamination exceeding reporting levels is present in or near the project area and further action is warranted? **No**

For Project Proponents completing this checklist: Upon completion, submit this checklist and all attachments to FEMA EHP.