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August 21, 2020

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

PROJECT NAME : Gallops Island Remediation and Restoration Project
PROJECT MUNICIPALITY : Boston
PROJECT WATERSHED : Boston Harbor
EEA NUMBER : 16245
PROJECT PROPONENT : Massachusetts Department of Conservation and Recreation
DATE NOTICED IN MONITOR : July 22, 2020

Pursuant to the Massachusetts Environmental Policy Act (MEPA; M.G. L. c. 30, ss. 61-62I) and Section 11.06 of the MEPA regulations (301 CMR 11.00), I hereby determine that this project **does not require** an Environmental Impact Report (EIR).

Project Description

As described in the Environmental Notification Form (ENF), the Massachusetts Department of Conservation and Recreation (DCR) proposes remedial actions to remove Lead and Polycyclic Aromatic Hydrocarbon (PAH) contaminated soils and Non-Friable Asbestos Contaminated Material (ACM) from various portions of Gallops Island and place them in containment facilities on the island. The long-term objective of re-opening Gallops Island as recreational parkland to the public has prompted the effort to remediate contamination and restore the native landscape to the extent practicable.

The site has been assigned Release Tracking Number (RTN) 3-0019568 by the Massachusetts Department of Environmental Protection (MassDEP). The purpose of the project is to remediate the project site in compliance with the Massachusetts Contingency Plan (MCP, 310 CMR 40.0000). Results

of the Phase IV Remedy this work indicate that the remedial actions are intended to eliminate Significant Risk to humans and environmental receptors by isolating the Lead, PAH and ACM beneath a soil cap overlying a geotextile barrier with a MCP Activity Use Limitation (AUL). Gallops Island is currently closed to the public (since 2001). Pending the completion of the cleanup and the MCP Response Actions, Gallops Island is anticipated to be re-opened as a recreational facility.

Specifically, the project involves excavating contaminated soils on Gallops Island; placing the contaminated material and other debris from past development in two containment area locations into containment areas; capping the containment areas with geotextile fabric, glacial till and other compatible sediment; re-vegetating any disturbed areas; monitoring to ensure that the vegetation gets established; creating pedestrian pathways; and re-opening the island to the public.

Project Site

Gallops Island is located in the Boston Harbor Islands State Park (BHIP) between Long Island and George's Island, approximately two miles northwest of Hull, Massachusetts. The BHIP is part of the Boston Harbor Islands National Recreation Area located within a portion of a chain of islands that is owned and managed by DCR. The Gallops Island is approximately 27 acres in size and is approximately 2,000 feet (ft) long and 1,000 ft wide. The Gallops Island consists of a large drumlin that terminates in a low sandbar at the eastern end, known as Peggy's Point. Gallops Island is predominantly surrounded by a large granite block seawall except for a sandy and gravel beach along the southern shore. Structures present on Gallops Island include the remaining foundations of demolished buildings, seawalls, a pier and boat dock, and a small pergola and composting toilets. There is also a wooden pier/boardwalk extending into the harbor from the Island's south side and a pergola on the northern side.

Gallops Island is within the Boston Harbor Islands Archaeological District which is on the State and National Registers of Historic Places. During the eighteenth, nineteenth and twentieth centuries, Gallops Island was used as farmland, a quarantine hospital and cemetery, a United States military site during the Civil War and World War II, and for recreational purposes until 2001. After World War II, the buildings were demolished. There is no documentation of how much debris was removed from the island during the demolition. According to the ENF, debris was left behind including asbestos containing building shingles near the remnant foundations.

The project site includes a variety of wetland resource areas including Coastal Bank, Coastal Beach, Barrier Beach, Coastal Dune, and Land Subject to Coastal Storm Flowage (LSCSF). Based on the current Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) (panels 25025C0104J and 25025C0108J dated March 16, 2016), the site also consists of a velocity zone (VE), and a portion of the proposed capped area falls within the 100-year floodplain and velocity zone to elevation 15 (North American Vertical Datum 1988 – NAVD 88).

The intertidal flats at the project site have been mapped by the Division of Marine Fisheries (DMF) as habitat for shellfish, crustaceans, and shore-zone fish. Finfish species that are dependent on benthic habitat in this system include winter flounder (*Pseudopleuronectes americanus*). In-shore stocks of winter flounder move to shallow protected areas to spawn in early spring, often over sandy or muddy substrates.

Environmental Impacts and Mitigation

As described in the ENF, the project will impact approximately 720 linear feet (lf) of Coastal Bank, 8,500 square foot (sf) of Coastal Beach, 20,710 sf of Barrier Beach, 5,205 sf of Coastal Dune, and 105,300 sf of LSCSF. In addition, 201 cubic yards (cy) of material will be dredged (excavated) to remove ACM below mean high water (elevation 4.3 feet NAVD 88).

Measures to avoid, minimize and mitigate Damage to the Environment include implementation of a monitoring plan and sediment and erosion control measures during the construction period. Specifically, the work will be conducted under direct oversight of a Licensed Site Professional (LSP) pursuant to the MCP. The project will incorporate the use of compost filter tubes, or other appropriate temporary erosion / sedimentation control measures, along the perimeter of the limit of work to protect the surrounding resources during construction. For areas of Gallops Island, such as Peggy's Point, that are within the LSCSF resource area, there will be measures implemented to appropriately prepare for and stage work to minimize erosion during potential forecasted storm events.

Jurisdiction and Permitting

This project is subject to MEPA review and preparation of an ENF pursuant to 301 CMR 11.03(3)(b)(1)(a) because it requires a State Agency Action and involves the alteration of a coastal dune, barrier beach or coastal bank. The project requires a 401 Water Quality Certification (WQC) and Chapter 91 (c.91) License from MassDEP. The project requires review by the Massachusetts Historical Commission (MHC) pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR Part 800) and 950 CMR 71.

The project will require an Order of Conditions from the Boston Conservation Commission (or in the case of an appeal, a Superseding Order of Conditions from MassDEP). The project requires authorization from the U.S. Army Corps of Engineers (ACOE) under the General Permits for Massachusetts in accordance with Section 404 of the Federal Clean Water Act, as well as Federal Consistency Review from the Office of Coastal Zone Management (CZM). The project will require a National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP) from the United States Environmental Protection Agency (EPA).

Because the project is being proposed by a State Agency, MEPA jurisdiction for any future review would be broad in scope and extend to all aspects of the project that may cause Damage to the Environment, as defined in the MEPA regulations.

Review of the ENF

The ENF provided a description of existing and proposed conditions, preliminary project plans, and an alternatives analysis, and identified measures to avoid, minimize and mitigate environmental impacts. Comments from State Agencies were generally supportive of the project. Comments did not identify any significant impacts that were not reviewed in the ENF, note deficiencies in the alternatives analysis, or identify additional alternatives for further review. Comments from CZM indicated that additional measures to stabilize the containment area locations may be warranted in light of future sea level rise (SLR).

Alternatives Analysis

The alternative selected for the project was developed based on consultation with MassDEP during the MCP evaluation process as described in the ENF and Phase IV Remedy Implementation Plan (RIP). The remedial action objectives (RAO) for the alternatives are to reduce exposure to direct contact with the waste and to minimize potential for erosion on the site. The alternatives analysis considered four alternatives in the development of the proposed project including a No-Action Alternative, Alternative 2 (Institutional Controls Alternative), Alternative 3 (Excavation, Off-site Disposal Alternative) and the Preferred Alternative, as described above. The alternatives were screened based on their ability to achieve a Temporary Solution or Permanent Solution at the site in accordance with MCP criteria. The analysis also considered the characteristics of the contaminated sediment; physical and hydrologic characteristics of Gallops Island; success of similar remedial activities; measures to eliminate or mitigate impacts of the contamination; and input provided upon consultation with MassDEP.

The No-Action Alternative does not reduce risks associated with the impacted soils and provides no additional protection to human health or public welfare. The No-Action Alternative was dismissed because the solid waste exposure and release would continue to present a risk to safety and public welfare, a condition that is not acceptable under the MCP.

Alternative 2, the Institutional Controls Alternative, involves mechanisms to limit access to impacted media and includes measures such as fencing, barriers, and Activity and Use Limitations (AULs) in the form of deed restrictions. While institutional controls do not eliminate contamination, they provide an effective, low cost means of reducing exposure potential and risk, if properly maintained and enforced. Institutional controls alone have the potential to achieve a Temporary Solution, but would result in significant restrictions in use of the site. The site is an island that is only accessible to the public by boat. The island is a remote location and it is infeasible to install and maintain fencing around the entire perimeter. Signs have been posted and maintained. However, while these may offer deterrence, these institutional controls are not always completely effective. As such, the Institutional Controls Alternative was dismissed because it does not eliminate risk to the public.

Alternative 3, the Excavation and Off-Site Disposal Alternative, is a Permanent Solution for managing asbestos and lead-impacted soils at an approved off-site disposal facility. This alternative is limited by transportation because it will require using small boats due to the minimal docking facilities to remove the asbestos and lead-impacted soils to an approved off-site disposal facility. This transport is costly and entails risk of release of the impacted soils to the aquatic environment. Another potential drawback for this alternative is the retained ownership of liability for disposal without prior treatment. In addition, while the soil is no longer at the site, the lead-impacted soils still exist and must still be managed at another location which is simply moving the impact from one site to another. For these stated reasons, this alternative was dismissed.

The Preferred Alternative will excavate and consolidate contaminated materials on-site and will provide a Permanent Solution for managing asbestos and lead-impacted soils. It will include placement into a containment facility covered with a geotextile marker-layer and covered with a cap consisting of clean soil and topsoil to isolate the impacted soils from direct contact, erosion, or other activities which

could create dusts, particulates, or migration potential of the impacted soils. This is consistent with MCP requirements and the Permanent Solution will be audited and enforced by MassDEP. On-site reuse of such materials was chosen because it is a cost-effective approach and will provide a Permanent Solution for managing asbestos and lead-impacted soils.

Wetlands and Waterways

The project will result in both permanent and temporary impacts to wetland resource areas (Coastal Bank, Coastal Beach, Barrier Beach, Coastal Dune, and LSCSF) due to the required abatement of ACM and removal of Lead and PAH contaminated soils. The ENF indicates that the project qualifies as a limited project pursuant to 310 CMR 10.24(7)(c)(6) of the Wetlands Regulations because it will entail containment, mitigation and remediation of hazardous material in accordance with the provisions of the MCP. The ENF includes plans that identify the location of contamination on Gallops Island, characterize wetland resource areas, and identify impacts to wetland resource areas. The Boston Conservation Commission will review the project to determine its consistency with Limited Project provisions of the Wetlands Protection Act (WPA), the Wetlands Regulations (310 CMR 10.00), and associated performance standards, including stormwater management standards (SMS).

MassDEP will review the project to determine its consistency with the c. 91 regulations (310 CMR 9.00) and the 401 WQC regulations (314 CMR 9.00). The ENF states that wetland resource areas will be restored “to the extent practicable,” while also noting that there will not be a loss of coastal resource area functions.

According to the ENF, the proposed capping of excavated Coastal Dune, Coastal Beach and Barrier Beach involves placement of approximately two feet of glacial till, topped with twelve to eighteen inches of beach or dune compatible sediments. Comments from CZM indicate that in areas where the shoreline is more dynamic, such as Peggy’s Point and landward of the jetty on the south side of the island, the glacial till is unlikely to provide significant resistance to erosion. Both CZM and MassDEP advise DCR to use a rounded cobble stone instead where the shoreline is more dynamic. The size of the cobble in the cobble dune adjacent to Peggy’s Point should be used to determine compatible cobble size for this environment and all construction specifications should emphasize rounded, as opposed to crushed, stone because rounded cobble functions differently than crushed stone and is more appropriate in this environment.

The ENF states that the proposed use of a geotextile layer under the cap material in the beach and dune areas is intended to serve as a retardant against erosion. Comments from MassDEP and CZM expressed concerns regarding the use of geotextile fabric in areas that receive storm wave energy and recommend regular long-term monitoring to ensure that the geotextile remains secure. CZM’s comments also note that the Island’s south facing shorelines are affected by less frequent, but often more severe storms, such as hurricanes. Because of the vulnerability to significant episodic change and the potential impacts to navigation and habitat if the geotextile fabric is washed out in a storm, CZM recommends that DCR should consider a layer of rounded cobble on the south side which would be more resistant to erosion. DCR should continue to work with MassDEP and CZM to develop quantitative monitoring of the shoreline erosion, including shore perpendicular profiles, in order to monitor erosion of Coastal Beaches, Coastal Dunes, Barrier Beach and Coastal Banks. Quantitative monitoring will provide better information about the erosion trends over time than the proposed visual

monitoring described in the ENF. Monitoring profiles should be determined yearly and after moderate to major coastal storm events.

Marine Fisheries

The intertidal flats at the project site have been mapped by the DMF as habitat for shellfish, crustaceans, and shore-zone fishes. Finfish species that are dependent on benthic habitat in this system include winter flounder (*Pseudopleuronectes americanus*). In-shore stocks of winter flounder move to shallow protected areas to spawn in early spring, often over sandy or muddy substrates. In addition, Land Containing Shellfish is deemed significant to the interest of the WPA (310 CMR 10.34) and the protection of marine fisheries. The DMF recommends a time-of-year (TOY) restriction in order to minimize impacts to winter flounder spawning, larval settlement and juvenile development, DCR should avoid in-water work from February 15 to June 30 of any year. Also if there is any increase in grade due to a cap in the intertidal zone that will result in loss of intertidal and a habitat conversion DMF states that mitigation may be required.

Hazardous Waste

As described in the ENF all of the Non-Friable (any material that contains more than one percent asbestos) ACM removed from the contaminated areas will be placed into a containment facility constructed at an upper-highland portion of the island and covered with a geotextile marker-layer and a two-foot thick cap consisting of 18 inches of clean soil and 6 inches of topsoil while retaining the existing topography. The lead and PAH contaminated soil will be placed into the upper section of the existing Structural Waste Remains Area (SWRA) which currently includes debris from past building demolition. The SWRA will also be covered with a geotextile marker-layer and the following three-capping elements: 2.5-foot thick cap (24 inches of clean soil and 6 inches of topsoil) in the upper portion of the SWRA; 3-foot thick cap (24 inches of clean soil plus 12 inches of beach materials) in the Coastal Beach; and 3.5-foot thick cap (24 inches of clean soil plus 18 inches of dune sand) in the Coastal Dune. The SWRA cap will result in a slight increase in topography in this area.

The ENF states that individual pieces of very-weathered Friable ACM have been observed in the tidal rack-line along portions of the southern beach and northern shoreline of Peggy's Point. The ENF details that in order to address this condition, an ongoing collection and removal procedure was developed to have licensed asbestos abatement workers periodically walk these beach areas and remove, by hand excavation, any visible ACM debris. Since these materials are considered friable, they will be managed separately from the Non-friable ACM and will be placed in a secure storage facility and periodically removed from the island by an asbestos contractor and disposed in an off-island permitted facility. In order to attempt to better determine the extent and movement of this ACM, three test pits (approximately 2-feet deep) will be dug during low tide conditions at representative locations along the shoreline where the Friable ACM has been observed/removed to confirm the absence of ACM. DCR has committed to develop, in consultation with MassDEP, a post-remediation ongoing ACM monitoring and removal program for these shoreline areas, similar to the program currently being used at Spectacle Island.

Climate Change

Governor Baker's Executive Order 569: Establishing an Integrated Climate Change Strategy for the Commonwealth (EO 569; the Order) was issued on September 16, 2016. The Order recognizes the serious threat presented by climate change and direct Executive Branch agencies to develop and implement an integrated strategy that leverages state resources to combat climate change and prepare for its impacts. The Order seeks to ensure that Massachusetts will meet GHG emissions reduction limits established under the Global Warming Solution Act of 2008 (GWSA) and will work to prepare state government and cities and towns for the impacts of climate change. I note that the MEPA statute directs all State Agencies to consider reasonably foreseeable climate change impacts, including additional greenhouse gas emissions, and effects, such as predicted sea level rise, when issuing permits, licenses and other administrative approvals and decisions. M.G.L. c. 30, § 61.

Adaptation and Resiliency

The Northeast Climate Science Center at the University of Massachusetts at Amherst has developed projections of changes in temperature, precipitation and sea level rise for Massachusetts. This data is available through the Climate Change Clearinghouse for the Commonwealth at www.resilientMA.org. The Massachusetts State Hazard Mitigation & Climate Adaptation Plan (2018) may provide additional data and resources applicable to the project site.

Boston is a participant in the Commonwealth's Municipal Vulnerability Preparedness (MVP) program. The MVP program is a community-driven process to define natural and climate-related hazards, identify existing and future vulnerabilities and strengths of infrastructure, environmental resources and vulnerable populations, and develop, prioritize and implement specific actions DCR can take to reduce risk and build resilience. DCR should consult this plan and additional MVP resources as the design of the project is finalized.

According to the ENF, as a result of the cap, the proposed elevations of portions of the Coastal Bank, Coastal Beach, and Coastal Dune will be approximately 2.5 to 3.5 feet higher than the pre-construction elevations; however, the extent of the resource areas will be similar to what currently exists. Restoring the Coastal Bank in this way will not prevent its ability to provide storm damage prevention and flood control and will continue to act as a buffer to the upland areas. After restoration the Coastal Beaches and Coastal Dune will continue to serve the purpose of storm damage prevention and flood control through their ability to dissipate wave energy, reduce the height of storm waves and supply sediment to adjacent coastal resources.

At the remote MEPA consultation session held on August 7, 2020, CZM indicated that, although the ENF did use FEMA's latest Flood Insurance Rate Maps (FIRM) that depict the likely extent of the flood zones associated with a 1% chance storm (i.e. 100-year storm), the FIRMs are based on sea level and shoreline positions at the time of the FEMA Flood Study and do not reflect sea level rise. CZM stated that it is important to consider the long-term effects of coastal erosion, sea level rise and the impacts of coastal storms as part of the planning for this project beyond just using the FIRMs. Information about coastal erosion trends, sea level rise, and probable future flood zones that take into account rising sea levels should be considered as part of the project planning to ensure that the containment areas and proposed capping of excavated areas are sufficient to contain the contaminants as

erosion, sea level rise, and increasingly intense coastal storms continue to change the shorelines of the island. CZM also indicated at the MEPA consultation session that rounded cobble should be used instead of glacial till for capping in areas where the shoreline is dynamic such as landward of the jetty on the south side of the island. The most up-to-date information sources that DCR should consider, as outlined in CZM's comment letter, include:

- The Massachusetts Department of Transportation (MassDOT) Boston Harbor Flood Risk Model maps, which identify the predicted coastal flood risks and flood depths for coastal storms and sea level rise for 2030 and 2070;
- The Historic Shoreline Change Maps for Massachusetts, which have both short term (1970 – 2014) and long-term (1800's –2014) rates of change;
- The National Oceanic and Atmospheric Administration's SLOSH Maps showing the likely inundation that could occur as a result of major hurricanes. These events are less frequent than the 1% storm but are important to consider as part of long-term planning for the island; and,
- The Northeast Climate Adaptation Science Center (NECASC) sea level rise projections downscaled for Massachusetts.

DCR verbally agreed during the MEPA consultation session to CZM's request to review and incorporate the most up-to-date sea level and shoreline change information into the project design.

Historic and Archaeological Resources

Gallops Island is within the Boston Harbor Islands Archaeological District which is on the State and National Registers of Historic Places. Archaeological investigations of the Boston Harbor islands have documented human habitation dating back to at least 9,000 year ago. Two pre-contact period terrestrial archaeological sites (19-SU-9 and 19-SU-112) are recorded on Gallops Island. Historical and archaeological evidence documents the island's post-contact period Euro-American use dating back to the early 1600s. Between the eighteenth through twenty-first centuries, the island was used for farmland, as a quarantine hospital and cemetery site, as a US military site during the Civil War and World War II, and for recreational purposes. Historical records indicate the occurrence of numerous shipwrecks in the Boston Harbor vicinity for which locations are vague. There are at least two shipwrecks dating to as early as 1847 in the vicinity of Gallops Island. The level and diversity of maritime commercial, military, and recreational activities throughout the history of Gallops Island may have resulted in the creation of a number of undocumented and anonymous intertidal archaeological sites, such as small craft, derelict vessels, or dumpsites.

Comments from MHC indicate that the proposed remediation and restoration project has the potential to have an "adverse effect" on the archaeological properties that that qualify the island for listing National Registers of Historic Places. MHC has initiated consultation with DCR pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR Part 800) and 950 CMR 71. Comments from the Board of Underwater Archaeological Resources (BUAR) indicate that the Board cannot determine that there are no submerged cultural resources in the portion of project area below mean high water. Therefore, BUAR considers the area to be archaeologically sensitive and

recommends archaeological monitoring during dredging/excavation activities. Such archaeological monitoring, undertaken for the area below mean high water, would need to be conducted under a BUAR Special Use Permit (312 CMR 2.06). DCR should consult with BUAR and MHC to develop a plan to deal with the possibility that heretofore-unknown submerged cultural resources might be encountered during the course of the project. The plan would include steps to limit adverse effects and notify BUAR), MHC, and other appropriate agencies in accordance with BUAR’s *Policy Guidance for the Discovery of Unanticipated Archaeological Resources* (updated 9/28/06).

Construction Period

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

Conclusion

The ENF has described the project and its alternatives, and assessed its potential environmental impacts and measures to avoid, minimize and mitigate impacts. Based on review of the ENF and comments received, and in consultation with State Agencies, I have determined that no further MEPA review is required.



August 21, 2020
Date

Kathleen A. Theoharides

Comments received:

- 08/07/2020 Massachusetts Division of Marine Fisheries (DMF)
- 08/10/2020 Massachusetts Office of Coastal Zone Management (CZM)
- 08/11/2020 Massachusetts Board of Underwater Archaeological Resources (BUAR)
- 08/11/2020 Massachusetts Department of Environmental Protection (MassDEP)
- 08/12/2020 Massachusetts Historic Commission (MHC)

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August 11, 2020

Kathleen A. Theoharides, Secretary
Executive Office of
Energy & Environmental Affairs
100 Cambridge Street
Boston MA, 02114

RE: Boston
Gallops Island Remediation
EEA #16245
Environmental Notification Form

Attn: MEPA Unit – Anne Canaday

Dear Secretary Theoharides:

The Massachusetts Department of Environmental Protection (“MassDEP”) has reviewed the Environmental Notification Form (“ENF”) dated June 23, 2020, submitted by AECOM on behalf of the Massachusetts Department of Conservation and Recreation (“DCR”) for the proposed **Gallops Island Remediation and Restoration Project** (“Project”). This Project includes remedial actions to remove Lead and Polycyclic Aromatic Hydrocarbon (“PAH”) contaminated soils and Non-Friable Asbestos Contaminated Material (“ACM”) from various portions of the island and place them in containment facilities on the island, along with a small amount of Friable ACM transported off-site for disposal. This work is being performed in accordance with Chapter 21E and the Massachusetts Contingency Plan (“MCP”) at 310 CMR 40.0000 (RTN 3-0019568). In December of 2011 DCR submitted to MassDEP a Phase IV Remedy Implementation Plan (“RIP”) for this work. The RIP has been recently updated and modified to reflect review and discussions with MassDEP. These remedial actions are intended to eliminate Significant Risk to humans and environmental receptors by isolating the Lead, PAH and ACM beneath a soil cap overlying a geotextile barrier with a MCP Activity Use Limitation (“AUL”). MassDEP has accepted the Phase IV RIP.

As correctly stated in the ENF, this remedial work will occur in several Wetlands Protection Act jurisdictional coastal resource areas, including; Coastal Bank, Coastal Beach, Barrier Beach, Coastal Dune, Land Subject to Coastal Storm Flowage and the 100-foot Buffer Zone. Staff from

This information is available in alternate format. Contact Michelle Waters-Ekanem, Director of Diversity/Civil Rights at 617-292-5751.

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MassDEP Website: www.mass.gov/dep

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MassDEP's Wetlands Protection Program has worked closely with DCR and AECOM to develop a comprehensive plan for this complex remedial work to avoid, minimize and restore construction-period impacts. DCR proposes to perform this work in two phases with the initial phase in the more sensitive shoreline areas, so as to allow for those areas to be restored as early in the Project as possible.

Oil and Hazardous Materials and Asbestos Abatement

All of the Non-Friable ACM removed from nineteen (19) contaminated areas will be placed into a containment facility constructed at an upper-highland portion of the island and covered with a geotextile marker-layer and a two-foot thick cap consisting of 18 inches of clean soil and 6 inches of topsoil while retaining the existing topography. The lead and PAH contaminated soil will be placed into the upper section of the existing Structural Waste Remains Area ("SWRA") which currently includes debris from past building demolition. The SWRA will also be covered with a geotextile marker-layer and the following three-capping elements: 2.5-foot thick cap (24 inches of clean soil and 6 inches of topsoil) in the upper portion of the SWRA; 3-foot thick cap (24 inches of clean soil plus 12 inches of beach materials) in the Coastal Beach; and 3.5-foot thick cap (24 inches of clean soil plus 18 inches of dune sand) in the Coastal Dune. This will result in a slight increase in topography in this area. In addition, individual pieces of very-weathered Friable ACM has been observed in the tidal rack-line along portions of the southern beach and northern shoreline of Peggy's Point. To address this condition, an ongoing collection and removal procedure has been developed whereby Massachusetts licensed asbestos abatement workers will periodically walk these beach areas and remove, by hand excavation, any visible ACM debris throughout the duration of the implementation of this Project. Since these materials are considered friable, they are being managed separately from the Non-friable ACM and will be placed in a secure storage facility and periodically removed from the island by an asbestos contractor and disposed in an off-island permitted facility. In order to attempt to better determine the extent and movement of this ACM, at least three (3) test pits (approximately 2-feet deep) will be dug during low tide conditions at representative locations along the shoreline where the Friable ACM has been observed/removed to confirm the absence of ACM. MassDEP will also develop with DCR a post-remediation ongoing ACM monitoring and removal program for these shoreline areas, similar to the program currently being used at Spectacle Island. All the above remedial actions were jointly developed by AECOM and MassDEP.

The ENF includes a **Confirmatory Sampling Plan** ("CSP") to verify the successful removal of ACM and Lead/PAH soils. For ACM; at the perimeters of the final limits of the excavation, an approximately 3 to 5-foot area will be "racked-back" to remove the surficial soils/debris to allow for the visual observations of soil conditions and potential presence of ACM at the periphery of the excavation. Should ACM be observed in this perimeter zone, removal operations will resume and repeated until there are no indications of ACM in the 3 to 5-foot zone. For the Lead/PAH area, excavation side-wall and bottom samples will be field screened for lead using an X-ray fluorescence instrument (XRF) with 10% of the samples sent for off-island laboratory confirmatory analysis. If lead levels are below the cleanup criteria of 200 mg/kg and no ACM is observed, the excavation will be backfilled. If either of these criteria are not met, excavation will resume until all samples meet the cleanup criteria.

Dredging Program

The ENF states that approximately 201 cubic yards of ACM at a section of Peggy's Point (associated with an approximately 3,900 square foot area of Coastal Beach) will be removed from areas below mean high tide. Due to its location below MHT, this removal operation is considered dredging vs excavation.

Storm Water Management

The ENF states that the remedial actions to be taken do not involve construction of any permanent structures, installation of new storm water controls, creation of new impervious cover, increase storm water flow, or alteration of any existing storm water features or drainage paths. Nevertheless, the ENF states that the Project will be constructed in compliance with MassDEP's "Stormwater Management Regulations Standard #8: Construction Period Pollution Prevention and Erosion and Sedimentation Controls". The ENF further includes five (5) specific techniques that will be employed. MassDEP anticipates that additional details will be included in the 401 Water Quality Certification Application.

Wetlands and Waterway Programs

WETLANDS PROGRAM

DCR will need to submit to the Boston Conservation Commission ("BCC") a Wetland Protection Act Notice of Intent ("NOI") under 310 CMR 10.00 and the BCC's Wetlands Ordinance for this Project. As stated in the ENF the Project will cause temporary and permanent impacts to coastal wetland resource areas, including; Coastal Bank, Coastal Beach, Barrier Beach, Coastal Dune, and Land Subject to Coastal Storm Flowage due to the required abatement of ACM and removal of Lead and PAH contaminated soils. During the development of this ENF, staff from MassDEP's Wetlands Program has worked closely with AECOM.

The ENF states that wetland resource areas will be restored "to the extent practicable", while also noting that there will not be a loss of coastal resource area functions. The Applicant is reminded that all wetland resource areas should be fully restored to preserve or enhance their functions. It appears that the project proposes to accomplish this through increasing the elevations of coastal Bank, Coastal Dune, and Coastal Beach, and replanting as appropriate. MassDEP does not object to this, but agrees with CZM's comment that rounded cobble be used instead of glacial till for capping in areas where the shoreline is dynamic such as landward of the jetty on the south side of the island. In addition, the applicant should review and incorporate the most up-to-date sea level and shoreline change information into the project design. MassDEP has expressed concerns during other project consultation sessions regarding use of geotextile fabric in areas that receive storm wave energy and has recommended regular long-term monitoring to ensure that the geotextile remains secure.

MassDEP supports CZM's recommendation for quantitative monitoring of shoreline erosion, including shore perpendicular profiles, in order to monitor erosion of Beaches, Dunes, Barrier Beach and Coastal Banks. This information would be valuable for future planning.

WATERWAYS PROGRAM

The ENF correctly states that a c. 91 Waterways License will be required for this Project, the major aspect being reconstruction and enhancement of the Jetty Stone Revetment along significant portions of the SWRA. This work is necessary to ensure the long-term integrity of the SWRA.

The MassDEP appreciates the opportunity to comment on this proposed project and would like to state its full support for the proposed remedial actions to eliminate significant risk so that the island can eventually be open for public access and use. If you have any questions regarding these comments, please contact me at Steven.Lipman@mass.gov or at (978) 979-4648 [cell].

Sincerely,

Steven G. Lipman, P.E.
Commissioner's Office


cc:

Robert Lowell, DCR
Michael Stiller, AECOM
Brona Simon, Massachusetts Historical Commission
Eric Worrall, Rachel Freed, John Macauley, Kyle MacAffee, Derek Standish, Daniel Padien
and John Viola, MassDEP

MEPA ENF #16245 Gallops Island Remediation



MEMORANDUM

TO: Kathleen A. Theoharides, Secretary, EEA
ATTN: Anne Canaday, MEPA Office
FROM: Lisa Berry Engler, Director, CZM 
DATE: August 10, 2020
RE: EEA #16245, Gallops Island Remediation and Restoration Project, Boston

The Massachusetts Office of Coastal Zone Management (CZM) has completed its review of the above-referenced Environmental Notification Form (ENF) noticed in the *Environmental Monitor* dated July 22, 2020 and offers the following comments.

Project Description

The proposed project involves excavating contaminated soils on Gallops Island, placing the contaminated material and other debris from past development in two containment areas; capping the containment areas with geotextile fabric, glacial till and other compatible sediment; revegetating and disturbed areas; monitoring to ensure that the vegetation gets established; creating pedestrian pathways; long-term monitoring for asbestos on the coastal beach; and re-opening the island to the public. A portion of the excavation will take place in coastal beach, coastal dune, barrier beach, coastal bank, and land subject to coastal storm flowage resource areas.

Project Comments

CZM supports the Department of Conservation and Recreation's (DCR) proposed remediation of the contamination on Gallops Island. The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) depict the likely extent of the flood zones associated with a 1% chance storm (i.e. 100-year storm). The FIRMs are based on sea level and shoreline positions at the time of the FEMA Flood Study. It is important to consider the long-term effects of coastal erosion, sea level rise and the impacts of coastal storms as part of the planning for this project. Information about coastal erosion trends, sea level rise, and probable future flood zones that take into account rising sea levels should be considered as part of the project planning to ensure that the containment areas and proposed capping of excavated areas are sufficient to contain the contaminants as erosion, sea level rise, and increasingly intense coastal storms continue to change the shorelines of the island. The most up-to-date information sources that should be considered include:

- The [MassDOT Boston Harbor Flood Risk Model](#) maps, which identify the predicted coastal flood risks and flood depths for coastal storms and sea level rise for 2030 and 2070;
- The [Historic Shoreline Change Maps](#) for Massachusetts, which have both short term (1970 – 2014) and long-term (1800's – 2014) rates of change;
- [SLOSH Maps](#) showing the likely inundation that could occur as a result of major hurricanes. These events are less frequent than the 1% storm but are important to consider as part of long-term planning for the island; and
- [NECASC sea level rise projections](#) downscaled for Massachusetts.



The proposed capping of excavated coastal dune, coastal beach and barrier beach involves placement of approximately two feet of glacial till, topped with twelve to eighteen inches of beach or dune compatible sediments. In areas where the shoreline is more dynamic, such as Peggy's Point and landward of the jetty on the south side of the island, the glacial till is unlikely to provide significant resistance to erosion; rounded cobble should be used instead. The size of the cobble in the cobble dune adjacent to Peggy's Point should be used to determine compatible cobble size for this environment and all construction specifications should emphasize rounded, as opposed to crushed, stone because rounded cobble functions differently than crush stone and is more appropriate in this environment.

The proposed use of a geotextile layer under the cap material in the beach and dune areas is intended to serve as a retardant against erosion as well as providing a marker layer. The geotextile is only proposed in the south facing coastal beach and dune areas identified by the proponent as being more stable based on observations. South facing shorelines are affected by less frequent, but often more severe storms, such as hurricanes. Their effects are averaged out in CZM's long term shoreline change data, so that source of information does not capture the vulnerabilities in these areas. Because of the vulnerability to significant episodic change and the potential impacts to navigation and habitat if the geotextile fabric is washed out in a storm, the geotextile should not be used in the coastal beach or dunes on the island. Instead, DCR should consider a layer of rounded cobble, which would be more resistant to erosion and serve as a marker layer.

The long-term monitoring plan of the restored island did not include any quantitative monitoring of shoreline erosion. Shore perpendicular profiles should be established around the island, particularly in the areas without seawalls where remediation is being conducted, to monitor the erosion of the beaches, dunes, barrier beach, and coastal banks. This will provide better information about the erosion trends over time than visual monitoring. Monitoring profiles should be determined yearly and after moderate to major coastal storm events.

Federal Consistency

The proposed project is subject to CZM federal consistency review. For further information on this process, please contact Robert Boeri, Project Review Coordinator, at 617-626-1050 or visit the CZM website at www.mass.gov/czm/fcr.

LBE/rh

cc: Rachel Freed, Deputy Regional Director, MassDEP-NERO Bureau of Water Resources
Daniel Padien, Program Chief, MassDEP Waterways Regulation Program
Amelia Croteau, Executive Secretary, City of Boston Conservation Commission
Barbara Newman and Ruthann Brien, U.S. Army Corps of Engineers, Regulatory
Rob Lowell, DCR Engineering
Michael Stiller, AECOM



The Commonwealth of Massachusetts

Division of Marine Fisheries

251 Causeway Street, Suite 400, Boston, MA 02114
p: (617) 626-1520 | f: (617) 626-1509
www.mass.gov/marinefisheries



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Governor

KARYN E. POLITO
Lt. Governor

KATHLEEN A. THEOHARIDES
Secretary

RONALD S. AMIDON
Commissioner

DANIEL J. MCKIERNAN
Director

August 7, 2020

Kathleen A. Theoharides, Secretary
Executive Office of Energy and Environmental Affairs
ATTN: MEPA Office, Anne Canaday
100 Cambridge Street, Suite 900
Boston, MA 02114

RE: EEA# 16245 Gallops Island Remediation and Restoration Project

Dear Secretary Theoharides:

Massachusetts Division of Marine Fisheries (MA DMF) staff have reviewed the Environmental Notification Form (ENF) submitted by the Massachusetts Department of Conservation and Recreation (MA DCR), for the Remediation and Restoration project at Gallops Island. According to the ENF, the project includes the remediation of contamination and restoration of the native landscape on Gallops Island, in accordance with the MA Contingency Plan (MCP), so that the island can be opened to the public for recreation. Remedial actions include removal of lead contaminated sediments, Polycyclic Aromatic Hydrocarbon (PAH) contamination and Asbestos contaminated material (ACM) where they are exposed and eroding. Material will be dredged from the intertidal area associated with the coastal beach at Peggy's Point. The coastal beach is dynamic with shifting cobble and sand. Proposed excavation within the coastal beach will be done at low tides and backfilled with clean beach sand and cobbles. The remainder of the contaminated material on the island will be capped in place. Disturbed wetland resource areas will be backfilled, capped and restored to the extent practicable.

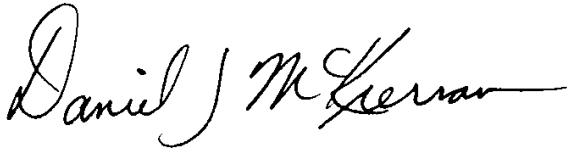
The intertidal flats at the project site are important for shellfish, crustaceans, and shore-zone fishes. Finfish species that are dependent on benthic habitat in this system include winter flounder (*Pseudopleuronectes americanus*). In-shore stocks of winter flounder move to shallow protected areas to spawn in early spring, often over sandy or muddy substrates.

Gallops Island has been closed to public access since 2001 and remediation of contaminants is necessary. MA DMF supports the proposal to remove and/or cap hazardous contaminants to minimize future risk to the marine environment and humans at Gallops Island. In an effort to help the project be successful and minimize impacts to marine fisheries resources and habitats, we provide the following recommendation and questions for your consideration:

- To minimize impacts to winter flounder spawning, larval settlement and juvenile development, we recommend that in-water work be avoided from February 15 to June 30 of any year.
- Will the described 3-foot increase in elevation in the Coastal Beach resource area be all above MHW? If there is any increase in grade due to a cap in the intertidal zone, will that result in loss of intertidal and a habitat conversion? If so, mitigation may be required.

Thank you for the opportunity to comment on this proposal. Questions about this review may be directed to Tay Evans at tay.evans@mass.gov.

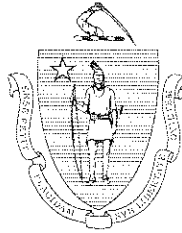
Sincerely,

A handwritten signature in black ink that reads "Daniel J. McKiernan". The signature is written in a cursive, flowing style.

Daniel J. McKiernan
Director

DM/te

Cc.
B. Vucson, DFG
T. Evans, MA DMF
K. Ford, MA DMF
B. Boeri, CZM
B. Newman, ACOE
D. Wong, DEP
M. Stiller, AECOM



The Commonwealth of Massachusetts

August 12, 2020 William Francis Galvin, Secretary of the Commonwealth
Massachusetts Historical Commission

Robert Lowell
Acting Chief Engineer
Massachusetts Department of Conservation & Recreation
251 Causeway Street, Suite 600
Boston, MA 02114-2119

RE: Gallops Island Remediation and Restoration Project, Boston, MA. MHC #RC.23244/ EEA #16245

Dear Mr. Lowell:

Staff of the Massachusetts Historical Commission (MHC) have reviewed the Environmental Notification Form (ENF) for the Gallops Island Remediation project on Gallops Island. The ENF was received at this office on July 17, 2020.

Gallops Island, in its entirety, is listed in the National and State Registers of Historic Places as part of the Boston Harbor Islands Archaeological District, and is a component of the Boston Harbor Islands National Park Area.

After review of the ENF, MHC has determined that the proposed remediation and restoration project has the potential to have an "adverse effect" on the archaeological properties that qualify the island for listing in the National Register of Historic Places through the potential disturbance to archaeological resources buried in the soils of the island and the significant historic and archaeological characteristics of Gallops Island. (950 CMR 71.05(a) and 36 CFR 800.5(2)(i)).

The MHC hereby initiates consultation pursuant to 950 CMR 71.07(3) and looks forward to consultation with DCR, the National Park Service, the City Archaeologist of Boston, the Boston Landmarks Commission, the Commission on Indian Affairs, and Tribal Historic Preservation Officers of federally recognized tribes who have an interest in the Boston Harbor Islands.

These comments are offered to assist in compliance with MGL c. 9, ss. 26-27C (950 CMR 70-71), and the terms of the Nationwide Programmatic Agreement with the National Park Service. If you have any questions, please contact Edward L. Bell, Senior Archaeologist/Deputy State Historic Preservation Officer at this office.

Sincerely,

A handwritten signature in cursive script that reads "Brona Simon".

Brona Simon
State Historic Preservation Officer
Executive Director
State Archaeologist
Massachusetts Historical Commission

xc: see attached list

xc:

Secretary Kathleen A. Theoharides EEA/MEPA Unit, ATTN: Anne Canaday

Patrice Kish, DCR

Jeffrey Harris, DCR

Ellen Berkland, DCR

Michael Creasey, National Parks of Boston/Boston Harbor Islands Unit

Joe Bagley, Boston City Archaeologist, Boston Landmarks Commission

Rosanne Foley, Boston Landmarks Commission

Jim Peters, Commission on Indian Affairs

David Weeden, Mashpee Wampanoag Tribe

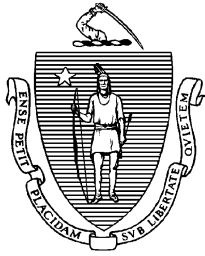
Bettina Washington, Wampanoag Tribe of Gay Head (Aquinnah)

Steven Lipman, DEP Commissioner's Office

Eric Worrall, DEP-NERO

Michael Stiller, AECOM

Barbara Newman, Army Corps of Engineers



The COMMONWEALTH OF MASSACHUSETTS
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August 11, 2020

Kathleen A. Theoharides, Secretary
Executive Office of Energy and Environmental Affairs
Attention: Anne Canaday, MEPA Unit (via email)
100 Cambridge Street, Suite 900
Boston, MA 02114

RE: Massachusetts Department of Conservation & Recreation: Gallops Island Remediation and Restoration Project
(EEA #16245), Gallops Island, Boston, MA

Dear Secretary Theoharides,

The staff of the Massachusetts Board of Underwater Archaeological Resources has reviewed the Environmental Notification Form for the above-referenced proposed project as detailed in the *Environmental Monitor* of 22 July 2020 and offers the following comments.

The Massachusetts Department of Conservation and Recreation's (DCR) proposes remediation of contaminated soils on Gallops Island so that the island may be reopened to the public. This remediation will involve the excavation in coastal beach, coastal dune, barrier beach, coastal bank, and land subject to coastal storm flowage areas, as well as the dredging/excavation of contaminated soils below mean high water along the Coastal Beach of Peggy's Point, a low sandbar at the island's eastern end. Excavated contaminated material and other debris from past development will be placed in two capped containment areas. Excavated areas will be backfilled, capped, and restored to the extent practicable.

The Board has conducted a preliminary review of its files, the Massachusetts Historical Commission's (MHC's) Massachusetts Cultural Resources Inventory System (MACRIS), the National Oceanic and Atmospheric Administration's (NOAA's) Office of Coast Survey's Wreck and Obstructions database, historic charts and maps, and secondary literature sources to identify known and potential submerged cultural resources in the portion of the proposed project area between mean high water and mean low water that is within the Board's co-jurisdiction with the MHC. No record of any underwater archaeological resources was found. However, Gallops Island is located within the Boston Harbor Islands Archaeological District, which is listed in the State and National Registers of Historic Places. Archaeological investigations of the Boston Harbor islands have documented human habitation there dating back to at least ca. 9,000 year ago. Two pre-contact period terrestrial archaeological sites (19-SU-9 and 19-SU-112) are recorded on Gallops Island. Historical and archaeological evidence documents the island's post-contact period Euro-American use dating back to the early 1600s. Between the eighteenth through twenty-first centuries, the island was used for farmland, as a quarantine hospital and cemetery site, as a US military site during the Civil War and World War II, and for recreational purposes. Historical records indicate the occurrence of numerous shipwrecks in the Boston Harbor vicinity for which locations are vague. There are at least two shipwrecks dating to as early as 1847 in the vicinity of Gallops Island. The level and diversity of maritime commercial, military, and recreational activities throughout the history of Gallops Island may have resulted in the creation of a number of undocumented and anonymous intertidal archaeological sites, such as small craft, derelict vessels, or dumpsites. Although unlikely, such sites could be encountered during the course of the proposed project activities.

Based on the results of this review, the Board cannot determine there are no submerged cultural resources in the portion of project area below mean high water. Therefore, the Board considers the area to be archaeologically sensitive. Given the concerns noted above, the Board recommends archaeological monitoring during dredging/excavation activities. Such archaeological monitoring, undertaken for the area below mean high water, would need to be conducted under a BUAR Special Use Permit (312 CMR 2.06). The Board also recommends the proponent consults with the Board and develop a plan to deal with the possibility that heretofore-unknown submerged cultural resources might be encountered during the course of the project. Such a plan would include steps to limit adverse effects (take care to not further disturb the

archaeological resource and note its precise location) and notify the Board and the Massachusetts Historical Commission, as well as other appropriate agencies, immediately. The Board suggests the proponent adopt a plan consistent with the Board's *Policy Guidance for the Discovery of Unanticipated Archaeological Resources*.

The Board appreciates the opportunity to provide these comments as part of the MEPA review process. Should you have any questions regarding this letter, please do not hesitate to contact me by email at david.s.robinson@mass.gov.

Sincerely,



David S. Robinson
Director

/dsr

Cc: Brona Simon, MHC
Robert Boeri, Erik Hokenson, and Rebecca Haney MCZM (via email attachment)