US Army Corps of Engineers®
New York District

LAKE MONTAUK HARBOR, EAST HAMPTON, NEW YORK

NAVIGATION IMPROVEMENTS

DRAFT SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT

MAY 2025

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List of Acronyms

Acronym	Definition
APE	area of potential effect
BMP	Best management practices
CAP	Continuing Authorities Program
CRIS	Cultural Resources Information System
CSAPR	Cross-State Air Pollution Rule
dB	decibels
EFH	Essential Fish Habitat
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FR/EA	Feasibility Report/Environmental Assessment
FSGEIS	Final Supplemental Generic Environmental Impact Statement
FWOP	Future Without Project
GHG	Greenhouse gas
HDP	Harbor Deepening Project
HTRW	Hazardous, Toxic, and Radioactive Wastes
IPaC	Information for Planning and Consultation
LMH	Lake Montauk Harbor
MLLW	Mean lower low water
MVERP	Marine Vessel Engine Repower Program
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NRHP	National Register of Historic Places
NYSDEC	New York State Department of Environmental Conservation
PDT	Project Delivery Team
PED	Pre-construction Engineering and Design
RAT	Regional Air Team
SEA	Supplemental Environmental Assessment
SHPO	State Historic Preservation Office
SNEO	Surplus NOx Emission Offsets
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
WQC	Water Quality Certificate

1.0 Purpose and Need

The U.S. Army Corps of Engineers (Corps), New York District (District), in partnership with the New York State Department of Environmental Conservation (NYSDEC) and the Town of East Hampton, is proposing to place dredged sand in the littoral zone and remove hard material from the Lake Montauk Harbor channel, as part of the Lake Montauk Harbor (LMH) Navigation Improvements Project. Hard material would be beneficially reused at the NYSDEC Mattituck Artificial Reef.

The LMH project was authorized for construction under Section 107 of the Rivers and Harbor Act of 1960 as amended (33 U.S.C. Section 577). The deepening of the channel was assessed in the *October 2020 Lake Montauk Harbor Navigation Improvements Final Feasibility Report* (available online here; USACE 2020a) and the associated *October 2020 Lake Montauk Harbor Navigation Improvements Final Environmental Assessment* (available online here; USACE 2020b) (Final FR/EA).

During the Pre-construction Engineering and Design (PED) phase of the project, the District was made aware of the presence of hard material within the channel (ranging from cobbles to boulders) that obstructed maintenance dredging and would need to be removed to reach the authorized channel depth. Additionally, due to real estate constraints and the existing narrow shoreline, the sand to be dredged from the channel will be placed between upland areas and nearshore along the western shoreline, rather than only within upland areas.

This Supplemental Environmental Assessment (SEA) was prepared as an update to the Final FR/EA and to incorporate the removal and transportation of the hard material within LMH Channel into the assessment to evaluate the significance of potential environmental impacts of the proposed action and determine if the proposed action warrants the preparation of an environmental impact statement.

2.0 Background

LMH is located on the northern shore of the south fork of Long Island, within the Town of East Hampton, Suffolk County, New York (See Figure 1) (see the Final FR/EA for detailed description of the study area). Lake Montauk is a home port and port of call for commercial fishing and recreational vessels. There are several marinas for commercial vessels, a yacht club, and small-craft facilities on both sides near the entrance to Montauk Harbor.

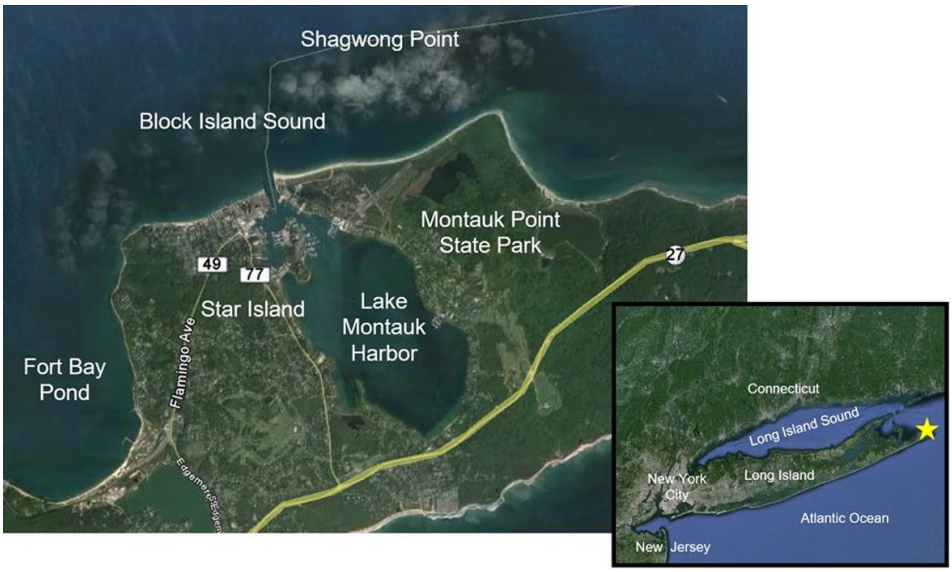

Figure 1: Lake Montauk Harbor Study Area

The currently authorized depth of the LMH channel is insufficient for the increased size of the vessels entering the harbor. Additionally, maintaining the channel depth has become more difficult with the accretion of sand on the eastern side of the east jetty through and around which sand migrates generally to the west into the channel.

The LMH project was authorized for construction under the USACE Continuing Authorities Program (CAP) per Section 107 of the Rivers and Harbors Act of 1960 (33 U.S.C. Section 577). The recommended plan under the Final FR/EA proposed navigation improvements that included the deepening of the existing navigation channel from -12' MLLW to -17' MLLW and deepening the existing deposition basin from -12' MLLW to -17' MLLW and widening it to 100' wide, and the placement of approximately 174,900 cubic yards of dredged material on the downdrift eroded beach above the historic mean high tide.

3.0 Alternatives Analysis

3.1 Alternative 1: No-Action Alternative (FWOP)

Alternative 1 is the no-action alternative, or future without project (FWOP) condition. Analysis of the no-action alternative is required under the National Environmental Policy Act (NEPA) and serves as the baseline against which the environmental and socioeconomic effects of the proposed action and other reasonable alternatives can be evaluated.

Under the FWOP, maintenance dredging would continue to occur as practicable to the currently authorized depth of -12 ft MLLW. Maintenance dredging has been historically necessary every 4-5 years and under FWOP would continue at this rate or more frequently due to shoaling. The hard material obstructing maintenance dredging would remain in place, continuing to obstruct maintenance dredging and prevent the full length of the channel from reaching the authorized depth.

3.2 Proposed Action

The proposed action includes the removal of sand (approximately 110,000 cubic yards) and hard material (approximately 15,000 cubic yards) from the LMH channel using a cutterhead dredge and excavator on a modular barge pulled by a tug boat. Transitional placement of the sandy material will occur along the shore on the western side of the jetty; transitional placement is defined as sediment that is kept within the system but will naturally move through the system or be rehandled (USACE 2023). This placement will largely be between the upland areas and -6ft MLLW. Approximately 5,000 cubic yards of dredged material will be placed seaward of -6ft MLLW due to space constraints. Based on prior maintenance dredging, the material is expected to spread downdrift naturally to the eroded downdrift shoreline.

The hard material will be removed from the channel and transported approximately 35 nautical miles northwest via barge and will be beneficially reused at the NYSDEC Mattituck Artificial Reef site (Figure 2). The Mattituck site was selected in coordination with NYSDEC. It is anticipated that removal of sand and hard material will take approximately 2 months. Mobilization and demobilization are expected to take 1-2 weeks each.

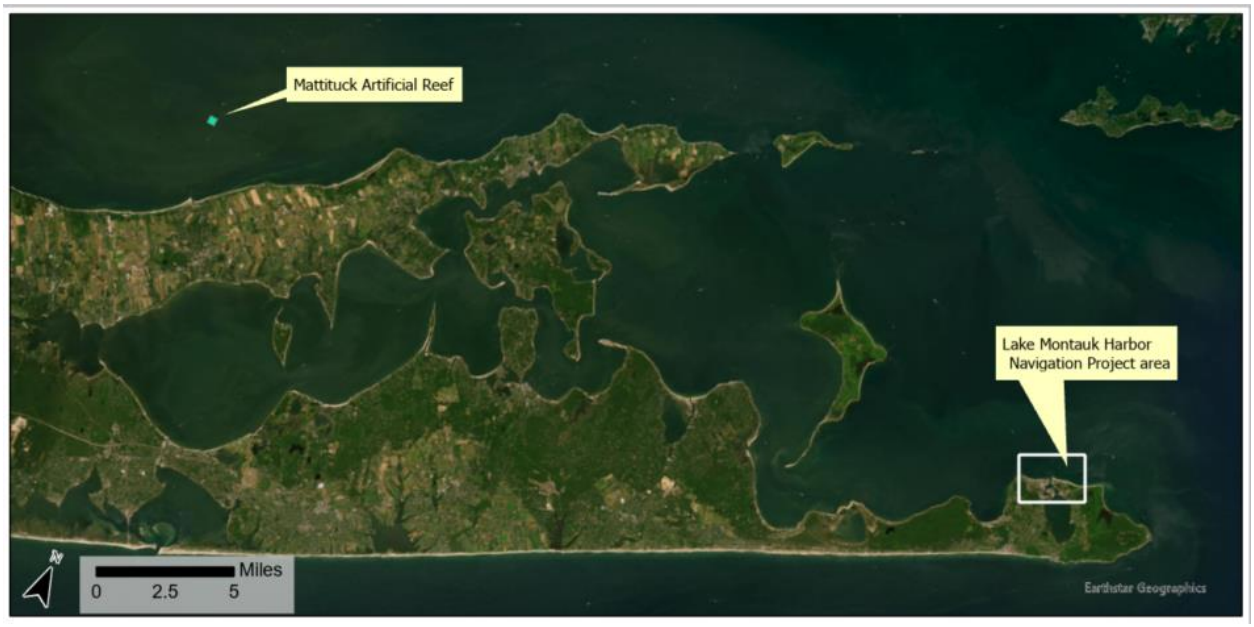

Figure 2: Location of Mattituck Artificial Reef in reference to project area.

The dredging of the channel and removal/placement of sediment within the upland areas has been assessed under the Final FR/EA and will be incorporated by reference. Placement of dredged sand within the nearshore environment will be assessed in this SEA, as it was not originally identified as a need, therefore, it was not included in the Final FR/EA. Additionally, removal and transportation of the hard material will be assessed in this SEA. Placement of hard material at the NYSDEC reef is covered under the *NYSDEC Artificial Reef Program Final Supplemental Generic Environmental Impact Statement (FSGEIS)* (NYSDEC 2020) and will be incorporated by reference.

3.3 Alternatives Previously Considered and Dismissed

Section 2.1 of the Final FR/EA discusses the initial set of alternatives considered for the project. Table 1 lists the alternatives considered by the PDT for the disposal of the hard material and the reasons for screening out these alternatives. These alternatives will not be discussed further in this SEA.

Alternative Considered	Reason for Dismissal
Disposal of hard material in-water at an offshore site	Determined to be environmentally unacceptable in coordination with NMFS and DEC
Placement of hard material along the shore to the west of the jetties. Material would then be buried by sand placement.	Real estate concerns and unacceptable to the local sponsor.
Trucking of material to a quarry.	Concern with additional noise and increased traffic from hundreds of trucks required to move material to quarry. Logistically difficult.
Placing additional sand material along the full project area shown in the Final FR/EA within the upland areas only	Real estate concerns and costs prevented this alternative.
Placing all dredged sand material within the shorter footprint in the upland zone only.	This would result in an extremely tall berm with steep slopes, which raised environmental and engineering concerns and was screened out.

Table 1: Alternatives Screened from Consideration

4.0 Affected Environment and Environmental Impacts

4.1 Land Use

See section 3.1 of the Final EA for a description of existing land use within the Lake Montauk watershed.

4.1.1 Impacts of the No-Action Alternative

Under the no-action alternative, land use within the project area would remain the same.

4.1.2 Impacts of the Proposed Action

There will not be any changes to land use under the proposed action. All work will take place within the water and would not alter land use. The placement of sand in the upland areas and littoral zone would not alter land use of the existing beach.

4.2 Geology, Topography, and Soils

See Section 3.1 of the Final EA for a description of the existing geology, soils, littoral material, and sediment conditions within the project area.

During PED, a geophysical investigation was conducted and identified a hard surface on the western edge of the eastern jetty within the channel. This material likely originates from the construction or rehabilitation of the jetty. The approximately 15,000 cubic yards of hard material consists of stones ranging in size from boulder to cobbles, with a mixture of sands and gravels (Baird, 2023).

4.2.1 Impacts of the No-Action Alternative

See Section 4.1 of the Final EA for a description of the no-action/future without project condition. No impacts were identified under the no-action alternative.

4.2.2 Impacts of the Proposed Action

See section 3.1.2 of the NYSDEC FSGEIS for impacts to sediment from placement of material at the reef.

Removal and transportation of the hard material in the channel would not impact geology, topography, or soils. The dredged material is of a similar composition to the materials present on the receiving beach and littoral zone. The increase of dredged material placed in the upland and littoral zones could increase the material within the intertidal (marine) zone, however, the intertidal zone is a highly turbid environment and potential addition of material lost from the upland and littoral zone due to storm events would not cause significant adverse effects to the environment (USACE 2020b). Therefore placement of the material within the littoral zone would not impact geology, topography, or soils.

4.3 Air Quality

Suffolk County is currently classified as in 'severe' nonattainment of the 2008 8-hour ozone standard and 'serious' nonattainment for the 2015 8-hour ozone standard (USEPA, 2023a). This is a change from the classifications documented in the Final FR/EA (see Section 3.2.3.7 of the Final EA).

The General Conformity applicability trigger levels in Suffolk County for 'severe' ozone nonattainment areas are: 25 tons of NO_x per year (any year of the project) and 25 tons of VOC per year. For 'serious' ozone nonattainment areas, the applicability trigger levels are: 50 tons of NO_x per year and 50 tons of VOC per year (40 CFR§93.153(b)(1)).

4.3.1 Impacts of the No-Action Alternative

See Section 4.1 of the Final EA for a description of the no-action/future without project condition.

Under the no action alternative, emissions from vessels that currently pass through the channel would continue. Fewer large vessels may be able to pass through the channel, as the hard material would stay in place and limit the channel depth and therefore limit the size of vessels able to traverse the channel. Emissions from maintenance dredging would be expected to continue every 3-4 years.

4.3.2 Impacts of the Proposed Action

See section 3.1.4 of the NYSDEC FSGEIS for impacts to air quality from placement of material at the reef.

Under the recommended plan, construction activities would result in emissions of approximately 96 tons of NO_x during the year of construction. These increased emissions are a result of the additional dredging needed to remove the hard material from the channel and the emissions associated with transporting the material to the Mattituck reef. This exceeds the 25 ton per calendar year threshold for General Conformity and requires mitigation to comply with General Conformity.

Emissions from maintenance dredging would decrease under the proposed action, as maintenance of the deepened channel would occur approximately every 7 years, rather than every 3-4 years.

The USACE is committed to fully offsetting the NOx emissions generated as a result of the work associated with this project. USACE recognizes that the feasibility and cost-effectiveness of each offset

option is influenced by whether the emission reductions can be achieved without introducing delay to the construction schedule that would prevent timely completion of the project to provide the benefits for which the project is being undertaken.

USACE will demonstrate conformity with the New York and New Jersey State Implementation Plans by utilizing the emission offset options listed below. The demonstration can consist of any combination of options and is not required to include all options or any single option to meet conformity. The options for meeting general conformity requirements include the following:

a. Emission reductions from project and/or non-project related sources in an appropriately close vicinity to the project location. In assessing the potential impact of this offset option, USACE recognizes the possibility of lengthening the time period in which offsets can be generated as appropriate and allowable under the general conformity rule (40CFR§93.163 AND §93.165).
b. Use of Surplus NOx Emission Offsets (SNEOs) generated under the Harbor Deepening Project (HDP) and/or subsequent projects for which SNEOs have been produced. As part of the mitigation of the HDP and later projects, USACE and the Port Authority of New York & New Jersey have developed emission reduction programs coordinated through the Regional Air Team (RAT). The RAT is comprised of the USACE, NYSDEC, New Jersey Department of Environmental Protection, United States Environmental Protection Agency (EPA) Region 2, and other stakeholders. SNEOs will be applied with the agreed upon SNEO Protocols to ensure the offsets are real, surplus, and not double counted.
c. Development of a Marine Vessel Engine Repower Program (MVERP) which replaces older, higher emitting marine engines with cleaner engines, the delta in emissions being used to offset project emissions. The details of the MVERP, its implementation, and tracking would be coordinated with the RAT.
d. Use of Cross-State Air Pollution Rule (CSAPR) ozone season NOx Allowances with a distance ratio applied to allowances, similar to the one used by stationary sources.

Due to the unpredictable nature of dredge-related construction, the project emissions will be monitored as appropriate and regularly reported to the RAT to assist the USACE in ensuring that the project is fully offset.

Additionally, the generation of greenhouse gas (GHG) emissions associated with the project's construction activities will be temporary in nature, spanning only the construction period. The primary GHG emitted from the diesel-fueled equipment that will be used during the construction activities is carbon dioxide (CO_2). Although nitrous oxides (N_2O) and methane (CH_4) have higher global warming potentials (298 times CO_2 for N_2O and 25 times CO_2 for CH_4), they are emitted at significantly lower rates, resulting in minimal fractional increases in carbon dioxide equivalents (CO_2e) when compared to CO_2 alone. The project will not introduce new mid- nor long-term sources of GHG emissions. Documentation of the GHG emission calculations is included in Appendix A.

4.4 Water Resources

See Section 3.1 and 3.2.3.8 of the Final EA for a description of existing aquatic resources and water quality within the project area.

4.4.1 Impacts of No-Action Alternative

See Section 4.1 of the Final EA for a description of the no-action/future without project condition. Effects identified included the periodic removal/disturbance to benthos that may have recolonized the benthic habitat between maintenance cycles and the resuspension of sediments caused by maintenance dredging. These potential effects are associated with a decrease in water quality due to increased turbidity.

4.4.2 Impacts of Proposed Action

See section 3.1.3 of the NYSDEC FSGEIS for impacts to water quality from placement of material at the reef.

Water Quality

Temporary increased turbidity due to resuspension of sediments during dredging and removal of hard material and within the littoral zone portions of the placement area is expected. These impacts will be minimal due to the low percentage of fine-grained sediments. The turbidity is comparable to the prop wash presently created in the shoaling environment by the large number of vessels using the harbor. This minor temporary increase in turbidity will result in a temporary decrease in water quality. These impacts are within the range of impacts assessed in the Final EA. Appendix E contains a revised evaluation, as required under the Clean Water Act, Section 404(b)(1) of the potential adverse effects the project could have within the study area.

Aquatic Resources

Temporary disturbance to benthos in the dredging and placement areas are anticipated. Benthic recovery is frequently disturbed due to the regular maintenance dredging and turbidity caused by vessel traffic. The impacts to benthos in both areas are expected to be reduced as maintenance dredging will occur approximately every 7 years after the channel is deepened, rather than every 3-4 years. These impacts are within the range of impacts assessed in the Final EA.

No impacts to water resources from the transportation of hard material to the reef site are anticipated.

4.5 Wetlands and Vegetation

See section 3.1 and 3.2.1 of the Final EA for a description of wetlands and vegetation within the project area.

4.5.1 Impacts of No-Action Alternative

No impacts to wetlands or SAVs were identified under the no-action alternative.

4.5.2 Impacts of Proposed Action

The NYSDEC FSGEIS documented no impacts to wetlands from placement of material at the reef as it is in a marine environment.

Under the proposed action, dredged material would be placed within the littoral zone. The NYSDEC defines the littoral zone as “the tidal wetland zone that includes all lands under tidal waters which are not included in any other category, extending seaward from shore to a depth of six feet mean low water” (NYSDEC 2023).

The placement of sand in the littoral zone will result in temporary short-term impacts. Littoral material in the project area is primarily sand with some gravel. Dredged material placed within the littoral zone will be the same material as what is currently present. The sand is expected to naturally erode out of the system due to littoral transport and future storm events. No mitigation is necessary for these temporary impacts.

There is an existing SAV bed (eelgrass) approximately 160 feet from the easternmost corner of the deposition basin. Turbidity is expected to be minimal due to grain size. Additionally, per EFH coordination with NMFS, dredging within the channel will be sequenced so that a 250-foot buffer from the SAV bed is maintained during the growing season (April 15 to October 15). Therefore, no impacts to the SAV bed are anticipated as a result of construction. All practicable measures have been taken to avoid and minimize impacts to SAV.

4.6 Threatened and Endangered Species

See Final EA Section 3.2.2.2 for a description of threatened and endangered species within the project area; Appendix C (available online here) for USFWS consultation; and Appendix D (available online here) for NMFS consultation.

The Endangered Species Act (ESA) of 1973 (16 U.S.C. 1531-1543) establishes legal protection for fish, wildlife, plants, and invertebrates that are Federally-listed as endangered or threatened. The USFWS and NOAA share responsibility for administration of the ESA. The USFWS is responsible for terrestrial and avian species, as well as freshwater aquatic species. The NOAA, through the Protected Resources Division of the National Marine Fisheries Service (NMFS), is responsible for marine aquatic species.

Both the USFWS Information for Planning and Consultation (IPaC) tool (USFWS 2025) and the NMFS Section 7 Mapper (NMFS 2025a) were referenced and identified several species as potentially occurring in the project area (see Table 2). Of these species, only the monarch butterfly and tricolored bat were not included in the prior assessment. No critical habitat was identified by either mapper.

Common Name	Scientific Name	Status	Potential to Occur
Mammals			
Northern Long-Eared Bat	*Myotis septentrionalis*	E	Not expected
Tricolored Bat	*Perimyotis subflavus*	Proposed E	Not expected
Birds			
Piping Plover	*Charadrius melodus*	T	Potential to occur, not observed
Roseate Tern	*Sterna dougallii dougallii*	E	Potential to occur
Rufa Red Knot	*Calidris canutus rufa*	T	Potential to occur (foraging)
Insects			
Monarch Butterfly	*Danaus Plexippus*	Proposed T	Not expected
Plants			
Sandplain Gerardia	*Agalinis acuta*	E	Potential to occur
Seabeach Amaranth	*Amaranthus pumilus*	T	Potential to occur
Marine Species			
North Atlantic Right Whale	*Eubalaena glacialis*	E	Potential to occur seasonally (Nov 1 – Apr 30)

Fin Whale	*Balaenoptera physalus*	E	Potential to occur
Green Sea Turtle	*Chelonia mydas*	T	Potential to occur seasonally (May – Nov)
Loggerhead Sea Turtle	*Caretta caretta*	T	Potential to occur seasonally (May – Nov)
Kemp's Ridley Sea Turtle	*Lepidochelys kempii*	E	Potential to occur seasonally (May – Nov)
Leatherback Sea Turtle	*Dermochelys coriacea*	E	Potential to occur seasonally (May – Nov)
Atlantic Sturgeon	*Acipenser oxyrinchus oxyrinchus*	T/E	Potential for adult and sub-adult individuals to occur

Table 2: Federally-Protected Species Potentially Occurring in Project Area

Species Not Previously Described in Final EA:

Tricolored Bat: The tricolored bat is primarily found in winter hibernating in caves, mines, and, to a lesser extent, road culverts. During the non-hibernating season, tricolored bats roost in forest trees, primarily among clusters of live and dead leaves. Alternative roosting locations may be selected and include buildings, barns, and rock crevices. Mating occurs in fall, followed by winter hibernation, emergence in spring, and formation of maternity colonies in summer. Tricolored bats are insectivores.

Monarch Butterfly: The monarch butterfly is a large, brightly colored insect. Monarchs in eastern North America are predominantly migratory, traveling between summer breeding habitat in northern U.S. and Canada to overwintering habitat in Mexico (Oct – late-March). Monarch butterflies can be found in a wide range of habitats and rely on milkweeds (*Asclepias* spp.) and flowering plants for reproduction and feeding, respectively.

4.6.1 Impacts of No-Action Alternative

See section 4.1 of the Final EA for a description of the environmental effects of the no-action/without project condition. There would be no impacts to threatened and endangered species under the no-action alternative.

4.6.2 Impacts of Proposed Action

See section 3.2.3 of the NYSDEC FSGEIS for impacts to threatened and endangered species from placement of material at the reef.

The Final FR/EA determined that the project was not likely to adversely affect any listed species or critical habitat under USFWS or NMFS jurisdiction and the services concurred. As the project has changed, additional assessment is required.

Marine Species:

The District determined that the proposed action "may affect, but is not likely to adversely affect" marine species and received concurrence from NMFS on March 17, 2025 (see Appendix B for NMFS ESA determination and concurrence). This is consistent with the Final EA determination.

USFWS

Monarch butterfly was not assessed in the Final FR/EA. No milkweed has been identified on the receiving beach. The beach is regularly used as a dredged material placement site during maintenance dredging and is largely sandy/cobbly with little vegetation growth. Monarchs are not expected to be present in the project area during construction, as construction coincides with the monarchs southward migration. The District determined that the project would have no effect on the monarch butterfly.

The tricolored bat was also not assessed in the Final FR/EA. Roosting and hibernating habitat is not present in the action area. There is intact forested habitat to the east of the project area in the Montauk County Park and Montauk Point State Park, and to the west of the project area at Culloden Point Preserve. These areas could provide roosting habitat for tricolored bats. There is potential for flyover of these bats during the fall (Oct-Nov), however, as construction is scheduled for October to January, the potential for flyover would decrease as the bats begin hibernating in winter. As a result, the District determined that the project may affect but is not likely to adversely affect the tricolored bat.

As the revisions to the proposed action are in-water only, and no changes to the upland beach habitat from what was described in the Final EA are anticipated, there are no changes to the previous ESA determination of "may affect but not likely to adversely affect". The District therefore determined that the proposed action "may affect, but is not likely to adversely affect" the above listed species and received concurrence from USFWS on May 7, 2025 (see Appendix C for USFWS ESA determination and concurrence). In coordination with USFWS, the District agreed to have a monitor onsite through November 30 to observe for red knots.

4.7 Essential Fish Habitat

The NMFS Essential Fish Habitat (EFH) mapper (NMFS 2023b) was referenced and identified several additional species as potentially present within the project area (see Table 3). See Section 3.2.2.1 and Appendix B (available online here) of the Final EA for the species previously identified.

Species	Eggs	Larvae	Juveniles	Adults
Little skate (Leucoraja erinacea)			X	X
Winter skate (Leucoraja ocellata)			X	X
Smooth dogfish[1] (*Muselus canis*)	X	X	X	X

Table 3: Additional EFH species not identified in the Final EA.

[1]Included as part of the Smoothhound Shark Complex. The smooth dogfish is the only species within this complex found in the Atlantic (NMFS 2017).

4.7.1 Impacts of No-Action Alternative

See Section 4.1 of the Final EA for a description of the no-action/future without project condition. The maintenance dredging would result in cyclic disruption (every 3-4 years) of finfish utilization of essential fish habitat within the channel.

4.7.2 Impacts of Proposed Action

See section 3.2.2 of the NYSDEC FSGEIS for impacts to essential fish habitat from placement of material at the reef.

Under the Final FR/EA, the District concluded that the adverse effect of the project on EFH was not substantial. NMFS concurred with this conclusion on 3 June 2019 with several conservation recommendations. These recommendations included a no dredge window from January 1 to October 31 to avoid impacts to winter flounder, migrating anadromous species, and SAV.

For construction of the proposed action, the District requested that the no dredge window be shortened to January 1 to September 31 to be consistent with the window required by the NYSDEC. This extended dredging window would allow for the completion of construction within one year, rather than over the course of multiple years. The District prepared an updated assessment for the proposed action which included the revisions to listed EFH species and determined that there would be no more than temporary minimal impacts to EFH (see Appendix D). This assessment was provided to NMFS on January 8, 2025 and the District received concurrence from NMFS on February 19, 2025.

The following conservation recommendations were provided by NMFS and accepted by the District:

- Continue to avoid dredging from January 1 to June 30 each year to minimize adverse effects to winter flounder early life stages and their EFH as well as migrating anadromous species including river herring and blueback herring, which are prey for a number of federally managed species.
- A minimum buffer between dredging area(s) and the edge of any SAV bed should be maintained between April 15 and October 15 of any year. The appropriate buffer is 250 feet if the sediments are 95% sand and 500 feet if less than 95% sand. Dredging can be sequenced to accommodate this buffer.
- The intakes on the dredge plant should not be turned on until the dredge head is in the sediment and should be turned off before being lifted to minimize larval entrainment in the dredge.
- Use BMPs to minimize the release of suspended sediments during sand placement activities.

With the implementation of these recommendations, there would be no more than a temporary minimal impact to EFH as a result of the proposed action. Therefore, the impacts of the proposed action are within the range of effects assessed in the Final EA.

4.8 Cultural Resources

See Section 3.2.3.5 of the Final EA for a description of cultural resources within the project area.

USACE, as a federal agency, has responsibilities to protect and preserve historic properties under the National Historic Preservation Act (54 U.S.C. 306108). This includes conducting an inventory of historic properties that within or nearby the project area and evaluating the impacts this project could have upon them. The area of potential effect (APE) of this project has three parts; the federal navigation channel, and the beach to the west of the inlet where the sand will be placed and the NYSDEC Mattituck Artificial Reef site.

4.8.1 Impacts of No-Action Alternative

See Section 4.1 of the Final EA for a description of the no-action/future without project condition. No direct, indirect, or cumulative impacts to cultural resources were identified in the Final FR/EA under the no-action alternative.

4.8.2 Impacts of Proposed Action

A preliminary records search of historic properties on the New York's Cultural Resources Information System (CRIS) showed that there are no know sites within the project area. There are several sites nearby the project area though, with the nearest being the wreck of the HMS Culloden, which is listed on the National Register of Historic Places (NRHP). This wreck is about 500 from the project area. About 1,000 from the project area are three Prehistoric sites; Culloden Point Prehistoric Sites, Culloden Point IV Prehistoric Site, and Culloden Point Area F Extension, the first of which is eligible for the NRHP, and the other two have undetermined eligibility. Lastly, the NRHP eligible Star Island Prehistoric Site is about 1,500 feet from the project area.

This project is not expected to have adverse effects to historic properties. This is because dredging the Federal channel will have no impact on the terrestrial sites that are nearby the Federal channel. Likewise, the dredge spoils will be placed at a specific location on the beach and are not anticipated to affect either the submerged HMS Culloden or the terrestrial Prehistoric sites. Placement within the NYSDEC Mattituck Artificial Reef site is not anticipated to affect cultural resources as the artificial reef is continuously maintained by the NYSDEC and placement on the surface of the reef is considered a beneficial, protective measure. We do not expect any undiscovered sites to be affected by deepening the Federal channel as the lake basin of Lake Montauk was deposited in late-glacial times, before humans occupied North America. Thus, the sediment that would be removed by the deepening activity is older than the expected age that would yield cultural materials.

USACE has coordinated with the NYSHPO and Tribal Nations on the effects of previous iterations of the project to cultural resources. The district has received concurrence from the NYSHPO the Stockbridge-Munsee, and Delaware Nation, on the most recent iteration of the project in 2019, which at that time included dredging the navigation channel from Block Island Sound into Lake Montauk Harbor, depositing the sand on the beach to the west of the lake, as well as the District's finding of no adverse impact on historic properties. The District is currently conducting additional remote sensing surveys of the nearshore placement area, coordination of the final report and the District's effect determination will be completed prior to construction. It is expected that the SHPO will concur that the most recent iteration of this project also has no adverse impact to historic properties (see Appendix F).

4.9 Socioeconomics

See Section 3.2.3.3 of the Final EA for a description of the existing socioeconomic conditions.

4.9.1 Impacts of No-Action Alternative

See Section 4.1 of the Final EA for a description of the no-action/future without project condition.

4.9.2 Impacts of Proposed Action

The proposed action would have a beneficial impact on socioeconomics in the action area. The deepening of the navigation channel would increase the local economy. The project area does not contain any low-income or minority groups, and the surrounding area is largely residential and open

park/conservation space. Temporary short-term impacts to residential areas from noise generated during construction are expected. These impacts are within the range of effects assessed in the Final EA.

4.10 Noise

See Section 3.2.3.7 of the Final EA for a description of existing noise within the project area.

4.10.1 Impacts of No-Action Alternative

See Section 4.1 of the Final EA for a description of the no-action/future without project condition.

4.10.2 Impacts of Proposed Action

See section 3.1.5 of the NYSDEC FSGEIS for impacts to noise from placement of material at the reef.

Temporary impacts to ambient noise due to the removal of the hard material from the channel are expected. This noise is expected to be within the range of noise assessed in the Final EA, as the same and similar equipment is anticipated. Extending the construction window by one month to allow for the removal of hard material would increase the duration of construction noise.

From a literature review, noise from backhoe dredging activities range from 163 – 179 decibels (dB)[1] (Burton et al., 2019). The most intense noises related to backhoe dredging are during bucket operation, with sound levels measured at 179dB. The noise generated by backhoe dredge operation is expected to be within the range of noise experience in project waters, as vessels regularly operate in the harbor and adjacent waters. Noise generated by small boats and ships range from 160-180dB and larger vessels range from 180-190dB (Burton et al., 2019). No blasting or pile driving is proposed as part of the project, and therefore no direct injury or mortality to aquatic mammals, sea turtles, or fish are anticipated. Auditory injury is not expected, as dredge operations are below the acoustic thresholds for injury. Behavioral disturbances to aquatic species are not expected to occur. The acoustic threshold for behavioral disturbances to marine mammals, fishes, and sea turtles are 160dB, 150dB, and 175dB, respectively. As dredge operations are limited to the harbor channel, and marine mammals and sea turtles are not expected to be present within the channel, and the noise from operations is expected to significantly decrease with increased distance from the dredge, behavioral disturbances to marine mammals and sea turtles are not expected to occur. Similarly for fish species, as the harbor and channel are frequented by larger commercial fishing and recreation vessels, the one-time operation of a backhoe dredge within the channel is not expected to cause significant behavioral disturbance to fish in the project area.

Therefore, the proposed action would result in temporary short-term noise impacts within the project area during construction.

4.11 Hazardous, Toxic, and Radioactive Wastes (HTRW)

See Section 3.1 of the Final EA for a description of HTRW sites nearby the project area. No HTRW was identified within the construction area.

[1] All sound levels are re 1µPa at 1m, unless otherwise noted.

4.11.1 Impacts of the No-Action Alternative

There would be no impacts to HTRW under the no action alternative.

4.11.2 Impacts of the Proposed Action

The Final FR notes “the project site itself, consisting primarily of sand with no history of dumping or nearby outfalls, is not considered to offer an HTRW threat” (USACE 2020a). The dredged material and rocks removed from the channel under the proposed action are not expected to contain any HTRW material. Therefore, the proposed action would have no impacts on HTRW within the project area.

4.12 Recreation

See section 3.2.3.2 of the Final EA for a description of recreational resources within the vicinity of Lake Montauk.

4.12.1 Impacts of the No-Action Alternative

Under the no action alternative, impacts to recreational fishing vessels are anticipated during maintenance dredging of the channel.

4.12.2 Impacts of the Proposed Action

Under the proposed action, temporary impacts to recreational fishing vessels are anticipated during construction and during future maintenance dredging while equipment is staged within the channel. However, as the construction is expected to take three months and maintenance dredging will occur at a reduced frequency than it is currently, these impacts are less than those under the no-action alternative.

4.13 Transportation

See Section 3.1 of the Final EA for a description of transportation resources in the project area and Section 3.2.3.1 for a description of navigation.

4.13.1 Impacts of the No-Action Alternative

Under the no-action alternative there would be cyclical impacts to transportation/navigation within the channel during maintenance dredging.

4.13.2 Impacts of the Proposed Action

Under the proposed action, there would be temporary impacts to transportation/navigation within the channel during construction and subsequent maintenance dredging. Construction of the proposed action will allow for more efficient navigation through the channel.

4.14 Cumulative Impacts

4.14.1 No Action Alternative

Cumulative impacts of the no action alternative are described in section 4.1 of the Final EA.

4.14.2 Proposed Action

See section 3.5 of the NYSDEC FSGEIS for cumulative impacts resulting from placement of material at the reef.

See section 4.2.2 of the Final EA for cumulative impacts resulting from dredging the channel and placing dredged material in the upland areas. Removal of the hard material in the channel would have similar cumulative impacts as the removal of sediment.

Potential cumulative effects associated with the proposed action within the marine zone relate to the placement of larger quantities of dredged material within the nearshore. As the marine zone is already a highly turbid environment the in-water placement is expected to move through the system quickly and naturally. The reduced frequency of maintenance dredging would support benthic recovery and lessen the cumulative disturbance of the marine environment overall. There are no significant adverse cumulative effects associated with the proposed action.

5.0 Permits and Project Coordination

Design of the proposed action was coordinated with NYSDEC as the non-federal sponsor and with the Town of East Hampton as the local sponsor.

A Water Quality Certificate (WQC) (Permit # 1-4724-00448/00009) was issued for the project on 27 April 2023. A modification to the WQC, to include the refinements to the proposed action, will be applied for.

Placement of the hard material at the Mattituck Artificial Reef site will be covered under the existing WQC for the reef (Permit # 1-9901-00003/00017).

6.0 Best Management Practices and Mitigation

The dredging equipment to be utilized will likely be hydraulic equipment (e.g., small cutterhead) and the schedule will be approximately 90 days dredging schedule to occur between 1 October and 1 January. The proposed schedule is one month longer than the schedule described in the Final EA. This extended dredging window is necessary due to the presence of hard material in the channel. Under the two-month window, construction would need to occur over two years, which would increase impacts (e.g., emissions and noise). To reduce impacts and length of construction, a three-month window is proposed.

The following Best Management Practices (BMPs) were incorporated into the construction schedule to minimize and avoid adverse environmental impacts, in addition to the conservation recommendations described in Section 4.7.

- Implementation of a seasonal restriction from 1 January – 1 October of in-water work.
- Seasonal monitoring to determine existence of piping plover nesting habitat will be conducted by the Town of East Hampton. Should nesting habitat that is potentially at risk be documented in the project area, coordination between USACE, USFWS, and NYSDEC will occur.
- Air quality emissions will be fully offset in accordance with General Conformity regulations (see section 4.3)

7.0 List of Preparers

Name	Title
Sophie Killy	Biologist
Jenine Gallo	Senior Biologist
Catherine Alcoba	Chief – Coastal Ecosystem Section; Supervisory Biologist
Peter Weppler	Chief – Environmental Analysis Branch
Ryan Clark	Archaeologist
Eli Greenblatt	Coastal Engineer
Frank Verga	Project Manager

8.0 Summary of Impacts

Resource Category	Impact of No Action	Impact of the Proposed Action
Land Use	No impact, land use is expected to remain the same.	No impact, land use is expected to remain the same.
Geology, Topography, and Soils	No impacts.	No significant impacts. Temporary increase of material within the intertidal (marine) zone during placement.
Air Quality	Emissions from maintenance dredging would continue. Emissions from vessels traversing the channel may lessen as the hard material would limit traversing the channel.	Emission 96 tons of NOx expected during construction, to be offset in accordance with established procedures (see Section 4.3). Maintenance dredging frequency would decrease and therefore emissions from this action would decrease.
Water Resources	Periodic removal/disturbance to benthos during maintenance dredging. Decrease in water quality due to increased turbidity following maintenance dredging.	Minor temporary increase in turbidity and temporary decrease in water quality during construction. Reduced impacts to benthos as the maintenance dredging will occur at a lesser frequency than under the No Action alternative.
Wetlands and Vegetation	No impacts to wetlands or SAVs.	Temporary short-term impacts to the littoral zone during placement of dredged material.
Threatened and Endangered Species	No impacts.	Not likely to adversely affect listed species or critical habitat under USFWS or NMFS jurisdictions.

Essential Fish Habitat	Cyclic disruption of finfish utilization of EFH within the channel during maintenance dredging.	Temporary minimal short-term impacts to EFH during construction.
Cultural Resources	No impacts.	No impacts.
Socioeconomics	No impacts.	No impacts.
Noise		Temporary short-term noise impacts during construction. No significant impacts to aquatic life due to noise.
HTRW	No impacts.	No impacts.
Recreation	Temporary impacts to recreational fishing vessels during maintenance dredging of the channel.	Temporary short-term impacts to recreational vessels during construction. Lesser impacts from dredging maintenance than in the no action alternative as maintenance would occur at a lesser frequency.
Transportation	Cyclical temporary impacts to navigation of the channel during maintenance dredging.	Temporary impacts to navigations during construction. Lesser cyclical temporary impacts to navigation during maintenance dredging than the no action alternative as maintenance dredging would occur at a lesser frequency.

9.0 References

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