US Army Corps of Engineers®
New York District

FIRE ISLAND TO MONTAUK POINT (FIMP), NY CSRM

NONSTRUCTURAL PILOT PROGRAM

DRAFT SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT

AUGUST 2025

Unique Identification Number: SEAX-202-00-E3P-1751991541

Table of Contents

Appendices:

Acronym	Definition
ACS	American Community Survey
APE	Area of Potential Effect
BFE	Base flood elevation
BMP	best management practice
CAA	Clean Air Act
CDC	Center for Disease Control
CMP	Coastal Management Plan
CPF	Coastal process feature
CZMA	Coastal Zone Management Act
DOI	Department of the Interior
EFH	Essential Fish Habitat
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ESAs	Environmental Site Assessments
FEIS	Final Environmental Impact Statement
FIMP	Fire Island to Montauk Point
FWCAR	Fish and Wildlife Coordination Act Report
FWOP	Future Without Project
GRR	General Reevaluation Report
IPaC	Information for Planning and Consultation
MBTA	Migratory Bird Treaty Act
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
NYNHP	New York Natural Heritage Program
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOS	New York State Department of State
PA	Programmatic Agreement
PRD	Protected Resource Division
RONA	Record of Non-Applicability
SEA	Supplemental Environmental Assessment
SHPO	State Historic Preservation Office
USACE	U.S. Army Corps of Engineers

USCB	U.S. Census Bureau
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
WRDA	Water Resource Development Act
WSS	Web Soil Survey

1. Introduction and Background

The Fire Island to Montauk Point (FIMP) project was first authorized by the River and Harbor Act of July 14, 1960. This authorization has been modified by Section 31 of the Water Resources Development Act (WRDA) of 1974, and Sections 103, 502, and 934 of the WRDA of 1986 (P.L. 99-662). The Final Environmental Statement (FEIS) and General Reevaluation Report (GRR) were published in 2020. The recommended plan documented in the FEIS/GRR included sand bypassing and dredging, renourishment, breach response plans, mainland nonstructural measures, removal of Ocean Beach groins, and coastal process features for 12 barrier islands and 2 mainland locations on Long Island, New York.

The FEIS broadly assessed the nonstructural portion of the recommended plan based on the limited level of detail available at the time and determined that additional in-depth assessment was required. This Supplemental Environmental Assessment (SEA) was prepared as a supplement to the FEIS to evaluate the significance of potential environmental impacts of the first FIMP nonstructural contract, referred to as the pilot program. This SEA has been prepared in accordance with the National Environmental Policy Act (NEPA) (42 USC 4321 et seq) and the Department of Defense NEPA Implementing Procedures (dated 30 June 2025). Additional SEAs and relevant coordination will be completed for future nonstructural contracts as needed.

During Feasibility, eligible structures were selected based on the following criteria: 1) structures are within the 10-year floodplain; and 2) the structure did not participate in the New York Rising Program or receive other Federal funds for similar work. Based on these criteria, more than 4,000 potentially eligible structures were identified in the FEIS/GRR.

Of the communities with eligible structures, pilot communities were selected based on need; community interest; whether there was a history of similar work conducted in the area; and the scale, size, and number of homes potentially eligible in the community. Based on these criteria, the communities selected for the pilot project were Mastic Beach (Town of Brookhaven) and Frederick Shores (Town of Babylon) [See Figure 1].

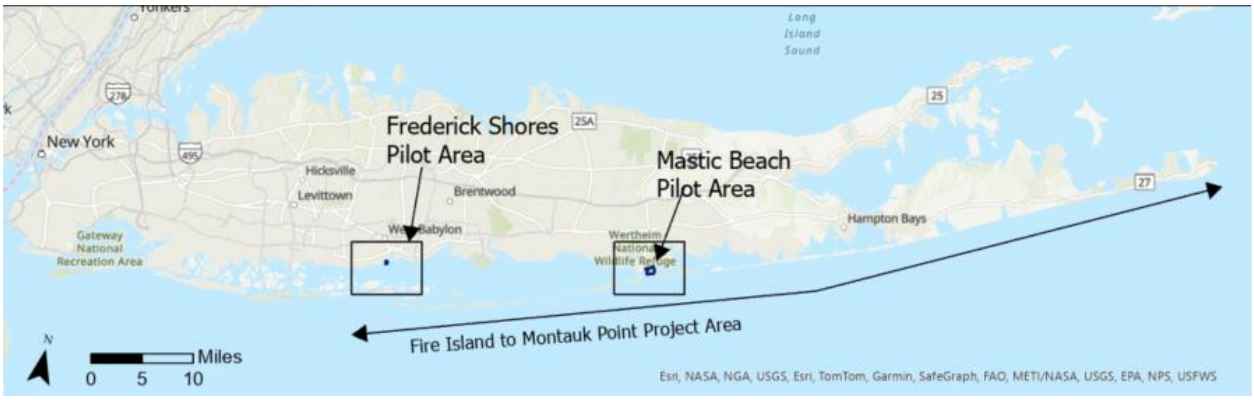

Figure 1: Pilot project communities

2. Purpose and Need

The purpose of the proposed action is to manage the threat of potential future damages to structures within the pilot areas from the effects of storm-induced flooding and other storm damage.

The need for this proposed action is to provide protections to structures in areas of Long Island that have a long history of storm events. The pilot program is intended to be the subject of lessons learned for future nonstructural construction contracts to fine-tune the implementation of the home elevation process.

3. Study Area

The Frederick Shores pilot area encompasses approximately 47.7 acres within the Town of Babylon. This pilot area is bounded by Grant Avenue West to the north, the Town of Babylon boundary line to the east, and by the waters of the Great South Bay to the south and west. The pilot area limits and the limits of disturbance are shown in Figure 2.

The Mastic Beach pilot area encompasses approximately 489.7 acres within the Town of Brookhaven. The Mastic Beach area is bounded by Gooseberry Road and Forest Road West to the north, Narrows Bay to the east and south, and by the Johns Neck tidal wetlands area to the west. The pilot area limits and the limits of disturbance are shown in Figure 3.

Figure 2: Frederick Shores pilot area limits and area of disturbance

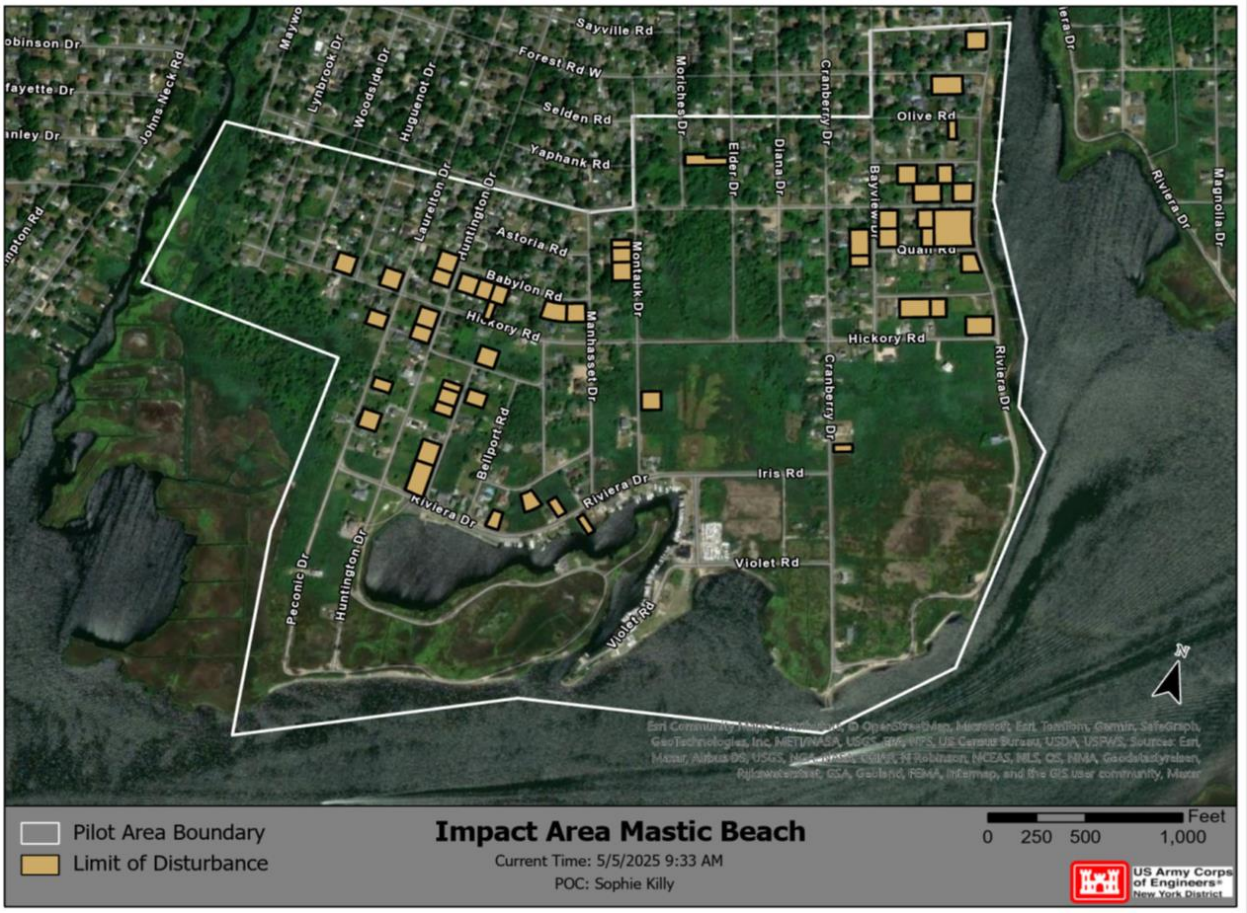

Figure 3: Mastic Beach pilot area limits and area of disturbance.

4. Alternatives

See Section 2.0 of the FEIS for a discussion of all alternatives developed and considered under the larger FIMP Project.

4.1. No Action Alternative

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

4.2. Proposed Action

The proposed action includes the elevation of up to 70 of structures within the pilot areas to 3.5 feet above the base flood elevation (BFE). The elevation of structures 3.5 feet above BFE complies with the New York State Uniform Fire Prevention and Building Code (19 NYCRR Parts 1219-1229). In general, the elevation process consists of the following: shutting off utilities; excavating the areas surrounding the structure to install lifting beams;

lifting the structure with jacks; demolishing the existing foundation/substructure; installation of new foundation/substructure; lowering the structure and reconnecting the utilities. Construction activities will be limited to the parcel boundaries of the eligible structures. No in-water work is proposed.

Prior to the proposed action, homeowners are responsible for any work needed to bring their property up to code. This includes several properties in Mastic that will require septic upgrades due to their proximity to the water. These upgrades must be completed prior to any elevation work. These upgrades are not considered part of the Federal action and will not be discussed further in this SEA.

5. Affected Environment and Environmental Consequences

5.1. Topography, Geology, and Soils

5.1.1. Affected Environment

See Section 3.1 of the FEIS for a description of topography and key geologic characteristics of the larger FIMP Project area.

Frederick Shores

Of the approximately 47.7 acres within the Frederick Shores pilot area boundary, approximately 5.3 acres of disturbance will occur. The U.S. Department of Agriculture (USDA) Web Soil Survey (WSS) was accessed to determine the types of soils present in the pilot area. Frederick Shores is entirely sandy fill (Fs) soil.

Mastic Beach

Of the approximately 489.7 acres within the Mastic Beach pilot area boundary, approximately 24.4 acres of disturbance will occur. The USDA WSS was accessed to determine the types of soil present in the pilot area. Most soils in the Mastic Beach area are gently sloping, generally between 0-3% slopes with smaller areas of 0-8% slopes. The soils in this area are predominantly tidal marsh (Tm) and Riverhead and Haven (RhB) soils. Lesser amounts of the following soil types are present: sandy beaches (Bs), cut and fill (CuB), fill (Fd), Riverhead sandy loam (RdA), and Walpole sandy loam (Wd). Of the soils identified, Riverhead sandy loam is considered prime farmland and Walpole sandy loam is considered a farmland of statewide importance.

5.1.2. Environmental Consequences

No-Action Alternative:

Under the no-action alternative, there would be no impacts to topography, geology, or soils.

Proposed Action:

Elevation of eligible properties would have no impact on topography or geology. During construction and elevation, ground disturbance within each eligible structure's property boundary (i.e. the limit of disturbance) is expected. This disturbance would result in a short-term increase to potential erosion. Best management practices (BMPs) to prevent erosion and sedimentation, like silt fences or catch basin filters, will be implemented where needed to minimize these potential short-term impacts.

Although there are soils present in the Mastic Beach area that are considered prime farmland and farmland of statewide importance, as the area is urbanized and the proposed action does not involve the conversion of prime agricultural soils to nonagricultural use, there is no impact to farmland due to the proposed action.

Therefore, the proposed action would have no impacts to topography or geology and would have temporary minor impacts to soils during construction which would be minimized by BMPs. These impacts are within the range of effects assessed in the FEIS.

5.2. Water Resources

5.2.1. Affected Environment

See Section 3.2 of the FEIS for the description of the water resources within the larger FIMP Project area.

Both pilot areas lie above the Nassau/Suffolk Counties sole source aquifer. There are no Wild and Scenic Rivers, as designated by the U.S. Department of the Interior (DOI), present in the pilot areas.

Frederick Shores

The Frederick Shores pilot area is surrounded on three sides by water: Mud Creek to the west and the western reach of Great South Bay to the south and east. Tidal tributaries to the Great South Bay, West (including Mud Creek) are classified as class SC waters, defined by the New York State Department of Environmental Conservation (NYSDEC) as waters best used for fishing. The tidal tributaries are considered stressed due to pathogens from runoff that have minor impacts on recreational uses. Great South Bay, West is classified as SA waters, defined by NYSDEC as those waters best used for shellfishing for market purposes, swimming or other recreation, and fishing. Great South Bay, West is also listed as a 303(d) impaired water body due to nitrogen and dissolved oxygen levels that do not meet the NYSDEC water quality standards for fishing.

Mastic Beach

The Mastic Beach area is likewise surrounded on three sides by water: Johns Neck Creek to the west, Sheepen Creek and Narrow Bay (part of Moriches Bay) to the south, and Pattersquash Creek to the east. The tidal tributaries to Narrow Bay (including Johns Neck, Sheepen, and Pattersquash Creeks) are classified as SC waters by NYSDEC and are

considered stressed due to pathogens that have minor impacts on recreational uses. Narrow Bay is classified as SA waters and does not meet the water quality standards for shellfishing and is listed as a 303(d) impaired waterbody due to fecal coliform.

5.2.2. Environmental Consequences

No-Action Alternative:

Under the no-action alternative, there would be no impacts to water resources.

Proposed Action:

Under the proposed action, no in-water work is proposed, and all construction activities will be land-based and occur within the parcel boundaries of each eligible structure. No impacts to surface waters are anticipated because of construction. As no discharge of dredged or fill material into waters of the United States would occur under the proposed action, it was determined that 404(b)(1) analysis under the Clean Water Act was not applicable.

Elevation of eligible properties would result in ground disturbance within the property boundary of each structure. As some properties are adjacent to surface waters, there is potential for impacts from runoff during construction. However, as noted in Section 1.1.2, the project would implement BMPs, like silt fencing and catch basin filters, to minimize these impacts during construction. Additionally, dewatering may be required during elevation of properties if excavation is necessary beneath the water table. If dewatering is necessary, a State Pollutant Discharge Elimination System (SPDES) permit may be required. Therefore, no impacts to water resources are anticipated because of the proposed action.

5.3. Wetlands

5.3.1. Affected Environment

See Section 3.3.5. of the FEIS for a description of wetlands within the mainland upland ecosystem of the larger FIMP Project area. The NYSDEC regulated tidal wetlands and freshwater wetlands datasets were assessed to determine presence of State wetlands within the pilot areas. The U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) Mapper was also referenced for each pilot area.

Frederick Shores

There are no State-regulated freshwater wetlands present in the Frederick Shores area. The waters surrounding this pilot area are classified as littoral zone, which is regulated as tidal wetlands by NYSDEC. The NWI Mapper classified the surrounding waters as riverine (i.e. within the canals) or as estuarine/marine deepwater habitat. Hydric soils are not present in these pilot areas based on USDA WSS data.

Mastic Beach:

There is one mapped NYSDEC freshwater wetland measuring 30.8 acres, identified as M-11, within the Mastic Beach pilot area. There are several areas of mapped NYS tidal wetlands that intersect with the Mastic Beach area, including high marsh, intertidal marsh, and one patch of salt marsh. The surrounding waters are also classified as littoral zone, which is regulated as tidal wetlands by NYSDEC. The NWI mapper identified estuarine and marine deepwater, estuarine wetlands, marine wetlands, freshwater emergent wetlands, and freshwater forested shrub wetland habitats are present. Of the soils identified by the USDA WSS, Tm and Wd soils are hydric; these soil types cover approximately 52.1% of the pilot area.

5.3.2. Environmental Consequences

No-Action Alternative

Under the no-action alternative, current wetland trends are expected to continue. Wetlands within the project area will change in response to various factors including natural succession, sea level rise, coastal erosion and related erosion control activities, periodic dune breaching and overwash, as well as land use changes and infrastructure development. See Section 4.3.1. of the FEIS for an assessment of future without project conditions for wetlands by habitat type within the larger FIMP project area.

The Mastic Beach coastal process feature (CPF), a feature of the larger FIMP Project and described in detail in the FEIS, would restore natural functions within the estuarine wetlands in the southeastern portion of the pilot area. Currently, the Mastic Beach CPF is under design and is assumed to be constructed under the no action alternative.

Proposed Action:

Structure elevations will occur largely within the footprint of existing structures and work will be completed within lots that have previously been developed. Work outside of existing footprint will be constrained to maintenance of egress/ingress (stairs or other access points). No in-water work is proposed, and no impacts to the littoral zone or marine/deepwater habitats are anticipated. Coordination with NYSDEC is ongoing to determine jurisdiction and whether a Water Quality Certificate or other wetland permits are required.

Within the Mastic Beach area, one structure's parcel boundary intersects with NYSDEC mapped tidal wetlands and two structures are within the NYSDEC mapped freshwater wetlands. No work is to occur in any vegetated wetlands or below mean high water. With the implementation of BMPs in areas adjacent to wetlands, and with construction occurring within previously developed parcels, no significant impacts to wetlands are anticipated in this area.

Within the Frederick Shores pilot area, no structures are within mapped wetlands. No impacts to wetlands are anticipated in this area during construction of the proposed action.

5.4. Vegetation

See Section 3.4.5. of the FEIS for a description of vegetation present within the mainland upland ecosystem of the larger FIMP Project area.

5.4.1. Affected Environment

The Frederick Shores pilot area is highly residential, and existing vegetation consists of mowed lawns and ornamental species common to suburban areas.

The Mastic Beach pilot area contains more open space and has a larger variety of vegetation present, in addition to the grass lawns and ornamental species found around the residential structures. The cover type mapping completed during the FEIS identified upland terrestrial, mixed vegetation/Phragmites, and salt marsh cover types are present in this area (USACE 2005). Ecological community mapping was conducted in the southeastern portion of the pilot area in 2022 for the Town of Brookhaven (Great Ecology and Ramboll, 2022). The species identified in this effort are listed in Table 1. The identified species are assumed to be representative of the larger pilot study area.

Common Name	Scientific Name
Upland Community	
Red maple	*Acer rubrum*
Oak	*Quercus* spp.
Common reed	*Phragmites australis*
Tree of heaven	*Ailanthus altissima*
Japanese knotweed	*Polygonum cuspidatum*
Japanese honeysuckle	*Lonicera japonica*
Sweet autumn clematis	*Clematis terniflora*
Mugwort	*Artemisia vulgaris*
Garlic mustard	*Alliaria petiolate*
Salt Marsh Community	
Marsh elder	*Iva frutescens*
Saltmeadow cordgrass	*Spartina patens*
Spikegrass	*Distichlis spicata*
Blackgrass	*Juncus gerardii*
Smooth cordgrass	*Spartina alterniflora*
Common reed	*Phragmites australis*

Table 1: Species identified in the ecological mapping of upland and salt marsh communities within Mastic Beach. (Great Ecology and Ramboll, 2022).

5.4.2. Environmental Consequences

No-Action Alternative

Under the no-action alternative, no changes to vegetation are anticipated in either pilot area. The Mastic Beach CPF planned as part of the larger FIMP Project is expected to be constructed. This would increase the native species present in the estuarine wetlands and is considered beneficial to the existing community.

Proposed Action

During construction of the proposed action, there would be temporary minor impacts to vegetation. Structure elevations will take place largely within the footprint of existing structures. Impacted vegetation would include the lawns and ornamental species planted in the lots where work is to occur, as trees/other vegetation planted close to the structure may be trimmed/removed to allow construction equipment to maneuver around the structure. Lawns would be impacted during excavation, as equipment is maneuvered around the property, and within staging areas. After the elevation work is complete, the area will be replanted to existing condition. Therefore, impacts to vegetation would be temporary and minor, lasting only during active construction.

5.5. Fish and Wildlife

See Section 3.5.5 of the FEIS for a description of the fish and wildlife present in the mainland upland ecosystem within the larger FIMP project area. See Appendix J of the FEIS for the 2020 Fish and Wildlife Coordination Act Report (FWCAR) for the larger FIMP project area; the 2020 FWCAR was determined by USACE to be sufficient for the proposed action and no new FWCAR coordination is needed. Additionally, the FWCA only applies to Federal actions that affect a stream or other body of water; the proposed action does not affect any stream or other water body and therefore coordination under FWCA is not applicable. Coordination with USFWS is ongoing under Section 7 of the ESA.

As there is no in-water work proposed and the area of disturbance is limited to previously developed lots, the proposed action would have no effect on Essential Fish Habitat (EFH) which is protected by the Magnuson-Stevens Fishery Conservation and Management Act, and further EFH assessment is not applicable.

5.5.1. Affected Environment

Birds

The USFWS IPaC was consulted for each pilot area and identified 46 migratory bird species within Mastic Beach and 16 migratory bird species within Frederick Shores.

Additionally, the islands within the surrounding bays are nesting bird habitat and the bays themselves are important habitat for overwintering waterfowl. The Captree Island vicinity (approximately 3.2 miles from the Frederick Shores pilot area), Moriches Bay, and Great South Bay are all recognized as Important Bird Areas by the National Audubon Society

(Audubon, 2024). Pattersquash Island (approximately 1,800 feet southeast of the Mastic Beach pilot area) has been used by nesting terns and skimmers. (NYSDOS, 2008a; 2008b)

Mammals

Typical mammals present in both pilot areas include white-tailed deer, domestic or feral cats, cottontail rabbits, mice, and voles.

Fish

In the western reach of Great South Bay, abundant fish species include silversides, Atlantic menhaden, killifishes, and bay anchovy (NYSDOS, 2008a). Within Moriches Bay common aquatic species include bluefish, winter flounder, summer flounder, American shad, tomcod, American eel, striped bass, weakfish, American sandlance, blue crab, and forage fish species (NYSDOS, 2008b). These species are assumed to be representative of those found in the waters surrounding both pilot areas.

Reptiles/Amphibians

Common herptile species in the pilot areas may include Fowlers toad, common garter snake, common snapping turtle, Eastern painted turtle, spotted turtle, black racer, diamondback terrapin, bullfrog, green frog, and box turtle.

5.5.2. Environmental Consequences

No-Action Alternative:

The no-action alternative would have no impact to fish and wildlife within the pilot areas.

Proposed Action:

The pilot areas are largely residential, with more open space present in the Mastic Beach area. The elevation of eligible structures would not have an impact on fish and wildlife habitat. It is anticipated that migratory birds and mammals would avoid the construction area due to noise and disturbance. Construction activities may cause mortality of the less mobile herptile species that may reside in the upland areas immediately adjacent to eligible structures. There may be disturbance to bird nests in structures to be elevated or in trees within the immediate vicinity of the eligible structures. In accordance with Migratory Bird Treaty Act (MBTA) best practices, tree and shrub removal will be avoided from April 1 – September 30 to minimize potential impacts to migratory birds. Should removal or pruning be necessary during this timeframe, USACE will conduct monitoring to determine if nesting migratory birds are present, if no nests are present then pruning may occur. If nests are identified, then an appropriate buffer will be coordinated with USFWS.

As BMPs would be implemented during construction, and no in-water work is proposed, no impacts to aquatic species in the surrounding waters are anticipated.

5.6. Rare Species and Habitats

See Section 3.6 and Appendix B of the FEIS for a description of the rare species and habitats within the larger FIMP Project area.

The Endangered Species Act (ESA) of 1973 established 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 listed species, as well as freshwater aquatic species. NOAA, through the Protected Resources Division (PRD) of the National Marine Fisheries Service (NMFS), is responsible for marine aquatic species.

As no in-water work is proposed and the limit of disturbance consists of previously developed lots, no aquatic species would be present and therefore species under NMFS jurisdiction and aquatic species under USFWS jurisdiction will not be discussed further.

5.6.1. Affected Environment

In addition to Federally protected species, NYS protects state-designated rare species under the NYS Environmental Conservation Law. Table 2 provides the listed species that may occur within the pilot areas, and their Federal and/or state status. No critical habitat was identified in either pilot area.

Common Name	Scientific Name	Federal Status	New York State Status	May Occur (X)	
				Frederick Shores	Mastic Beach
Northern Long-eared Bat	*Myotis septentrionalis*	Endangered	Endangered [S1]	X	X
Tricolored Bat	*Perimyotis subflavus*	Proposed Endangered	Not Listed [S1]	X	X
Piping Plover	*Charadrius melodus*	Threatened	Endangered [S3B]	X	X
Roseate Tern	*Sterna dougallii dougalli*	Endangered	Endangered [S1B]	X	X
Rufa Red Knot	*Calidris canutus rufa*	Threatened	Threatened [S2S3M]	X	X
Monarch Butterfly	*Danus plexippus*	Proposed Threatened	Not Listed	X	X
Sandplain Gerardia	*Agalis acuta*	Endangered	Endangered [S1]		X

Table 2: Listed species identified as potentially occurring in the pilot areas.

Northern Long-Eared Bats (*Myotis septentrionalis*)

During the summer, northern long-eared bats roost singly or in colonies of 30-60 bats underneath tree bark, in tree crevices and cavities, or dead trees (USFWS, 2015). Roosting northern long-eared bats are typically associated with intact interior forest habitat, although bats may roost in built structures and behind building shutters. These bats typically give birth late-May to early-June/late-July. During winter, northern long-eared bats hibernate in caves or abandoned mines, called hibernacula. This species is insectivorous and feed on flying insects.

Based on data available from the USFWS, northern long-eared bats are known to roost in Mastic Beach and the Town of Brookhaven. The NYNHP also noted that the species has been documented within 1.25 to 3 miles of the Mastic Beach pilot area. Neither Frederick Shores nor the Town of Babylon are included in the USFWS list of roosting locations, and there are limited intact forested habitats nearby the Frederick Shores pilot area that could support roosting. There are no known hibernacula in either pilot area.

Tricolored Bats (*Perimyotis subflavus*)

Tricolored bats are one of the smallest bats in North America. They exhibit tricolored fur that appears dark at their base and tip and lighter in the middle, hence their name. During winter, tricolored bats are found 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, such as buildings, barns, and rock crevices (NYNHP, 2024b). Mating occurs in the fall, followed by hibernation in the winter, emergence in the spring, and the formation of maternity colonies in the summer when young are born. Tricolored bats are insectivores.

The Mastic Beach pilot area has buildings and intact forest habitat nearby that could support roosting. Frederick Shores is more densely developed than Mastic Beach and has limited intact forest habitat that could potentially support roosting. There are no known hibernacula in either pilot area.

Piping Plover (*Charadrius melodus*):

Piping plovers are small migratory shorebirds that are known to nest on Long Island's sandy beaches (NYNHP, 2024a). Piping plovers prefer to nest on dry, sandy, open beaches above MHW. Mating generally begins in early/mid-March and continues into late June/July. Most nesting ceases by mid-August to September, when the birds begin to fly south for the winter. Piping plovers predominantly feed on invertebrates within intertidal areas and along the shorelines of coastal ponds, lagoons, and salt marshes.

The Third Edition of the New York State Breeding Bird Atlas (last accessed 09 July 2024; NYSBBA 2025) and available eBird data (last accessed 2 April 2025) were used to identify occurrences of piping plovers near the pilot areas. Recent observations of piping plover are limited to the barrier beaches fronting the Mastic Beach pilot area.

Roseate Tern *(Sterna dougallii dougallii)*:

Roseate terns are medium-sized terns that typically nest in sandy areas with 80% vegetative cover, on small islands, or at the ends of barrier beaches in colonies. Roseate terns can arrive in Long Island as early as late-April and typically depart by October or November (USFWS, 1989). Roseate terns forage for small schooling fish in areas within approximately 1.25 miles offshore. Over 95% of roseate terns in NY breed at a single coastal island (NYNHP, 2024c) over 50 miles from the pilot areas. Historically, the roseate tern has occasionally been observed breeding on the islands within Great South Bay and Moriches Bay (USACE and USFWS, 2018).

From the NYS Breeding Bird Atlas and ebird, documented observations of roseate tern are limited to the barrier islands fronting both pilot areas.

Rufa Red Knot *(Calidris canutus rufa)*:

Red knots are stocky, medium-sized shorebirds that utilize stopover areas along the Atlantic Coast of New York during their annual migration between breeding grounds in the Arctic and wintering areas as far south as Tierra del Fuego. The red knot's northbound migration through Long Island is roughly May 1 – June 15 and the southbound migration is roughly July 15 – November 30. During migration and in winter, red knots are typically found in very large flocks in intertidal marine habitats, on tidal flats, rocky shores, and beaches, especially near coastal inlets, estuaries, and bays. Red knots eat shallow-buried prey such as mollusks, horseshoe crab eggs, marine worms, and other invertebrates.

From the NYS Breeding Bird Atlas and eBird, documented observations were largely limited to the barrier islands fronting the pilot areas.

Monarch Butterfly (*Danus Plexippus*):

Monarch butterflies are large, brightly colored insects that have two sets of wings spanning 3-4 inches. Monarchs in eastern North America are predominately migratory, traveling from summer breeding habitat in northern U.S. and Canada to overwintering habitat in Mexico, where they reside from October to late-March. Monarch butterflies can be found in a wide range of habitats across Long Island and rely on milkweeds (*Asclepias* spp.) and flowering plants for reproduction and feeding, respectively.

Sandplain Gerardia (*Agalis acuta)*:

Sandplain gerardia is a small pink or purple blossomed annual that grows in open grassland habitat along coastal Long Island. Significant remnant populations remain only at Sayville, the Hempstead Plains, and Montauk (USACE, 2020). The species requires prairie grassland habitat dominated by native bunchgrass, especially little bluestem (*Schizachyrium scoparium*) (Jordan, 2007). There are no known occurrences of sandplain gerardia within the pilot areas.

Habitats of Concern

The Frederick Shores and Mastic Beach pilot areas are situated along the northern shores of Great South Bay and Narrows Bay (part of Moriches Bay), respectively. The USFWS recognizes the Long Island Barrier Beach/Backbarrier Lagoon Systems of both bays as Significant Habitats and Complexes of the New York Bight watershed (USFWS, 1997). NYSDEC also recognizes the backbarrier lagoon systems as Significant Natural Communities because of their high quality and rarity in the state. In addition, the NYSDOS has designated Great South Bay-West and Moriches Bay as Significant Coastal Fish and Wildlife Habitats under the NYS Coastal Management Program because of their ecological importance.

5.6.2. Environmental Consequences

No-Action Alternative:

Under the no-action alternative there would be no impacts to rare species and habitats.

The Mastic Beach CPF planned as part of the larger FIMP Project is expected to be constructed. This would increase the overall habitat quality in Mastic Beach, while providing a buffer to reduce wave energy.

Proposed Action:

See Appendix A for pertinent correspondence. The USACE determinations are described below, and coordination is ongoing with USFWS.

The Frederick Shores pilot area is highly developed and does not have habitat suitable for foraging. The Mastic Beach pilot area includes intertidal areas that may be used for foraging. There are no known shorebird nests at either site. Occurrences of plovers and terns would be limited to the occasional transient flyover. As roseate tern and piping plover are not expected to be present in the pilot areas, the District determined that there would be no effect to either species as a result of the action.

Red knots may forage in the intertidal areas of Mastic Beach. However, as the eligible structures are within previously developed lots, there would be no direct disturbance to foraging individuals. At most, the noise from construction would result in potentially foraging individuals leaving the Mastic Beach pilot area for adjacent habitat during active construction. Once construction is complete, these species are expected to continue their previous use of the area. Therefore, the District determined that the proposed action may affect but is not likely to adversely affect the red knot.

No impacts to monarch butterfly are anticipated. This species is highly mobile and there is ample habitat nearby that is the same or higher quality. Therefore, the District determined that the proposed action would have no effect on monarch butterfly.

Minor, short-term impacts to bat species are anticipated. Northern long-eared bats may roost in built structures and behind building shutters and are known to roost in Mastic Beach. Tricolored bats may also roost in buildings. These species are likely to be present in the Mastic Beach area and may be roosting in eligible structures. Prior to construction, presence/absence surveys will be conducted for structures to be elevated within Mastic Beach. If it is determined during the surveys that bats are present in structures, then construction would be scheduled outside of the summer occupancy season for Long Island (March 1 – September 30). Adjacent structures would also follow this window to avoid indirect impacts from noise and vibration due to nearby construction activities. With the implementation of the pre-construction survey and proposed window if bats are present, the District determined that the proposed action may affect but is not likely to adversely affect the northern long-eared bat or the tricolored bat.

No impacts to sandplain gerardia are anticipated. There are no known occurrences of this species within either pilot area. This species is not expected to be present within the construction areas, which is limited to the developed lots of eligible structures. Therefore, the District determined that the proposed action would have no effect on sandplain gerardia.

No impacts to habitats of concern would occur because of the proposed action, as the action will take place entirely within developed lots.

5.7. Land Use and Development

See Section 3.7.3 of the FEIS for a description of the land use and development within the larger FIMP Project area.

5.7.1. Affected Environment

In New York State, the primary responsibility for zoning land use regulations rests with the local municipalities, including towns and incorporated cities or villages. As discussed in Section 3.7.3. of the FEIS, there are several Federal and state zoning and land use regulations affecting shorefront areas potentially subject to flooding or coastal erosion.

The Frederick Shores pilot area is within West Babylon, a hamlet of the Town of Babylon. The 2016 Land Use Map of Suffolk County shows that land use within Frederick Shores is largely medium-density and high-density residential (Suffolk County, 2018). The Town of Babylon Zoning Map identifies the pilot area as entirely within zone 'B – Residence District'. Permitted uses within this zoning district are limited to those defined in the Code of the Town of Babylon § 213-76 (see https://ecode360.com/6810797).

The Mastic Beach pilot area is within Mastic Beach, a hamlet of the Town of Brookhaven. The 2016 Land Use Map of Suffolk County shows that land use within the Mastic Beach pilot area is a mix of preserved recreation and open space, medium-density, and high-density residential uses (Suffolk County, 2018). The Town of Brookhaven GIS Viewer

identifies most of the pilot area is residential and within residential zones A1 and A2. Chapter 85 of the Town Code outlines the standards, uses, and structure restrictions (i.e., structure height) within residential zones (see: https://ecode360.com/8596432).

A small portion of the Mastic Beach pilot area around Sheepen Creek is designated as Marine Commercial. The Marine Commercial district's purpose "is to encourage waterfront locations for a limited range of water-dependent and water-related uses and provide opportunities and activities for the residents of the Town of Brookhaven, which are desirable and necessary for recreation, tourism, and entertainment purposes while maintaining the necessary protections to the waterways, wetlands and residential uses and zones." Use of this zoning district is limited to marinas.

5.7.2. Environmental Consequences

No Action Alternative:

Under the no action alternative, there would be no changes to land use or development, policy, or zoning. Both pilot areas would be expected to remain largely residential.

Proposed Action:

Under the proposed action, no changes to land use, policy, or zoning are anticipated. The elevation of structures to 3.5 feet above BFE would preserve the existing residential land uses in both pilot areas. All structural improvements will be completed in accordance with all applicable local laws and regulations, and all necessary permits will be obtained. Chapter 33 of the Brookhaven Town Code and Chapter 125 of the Babylon Town Code require a Floodplain Development Permit for all construction and development within areas of special flood hazard. These chapters of each town code define the construction standards for work in these areas.

5.8. Coastal Zone Management Act (CZMA)

5.8.1. Affected Environment

The CZMA of 1972 (16 U.S.C. 1451-1464) aims "to preserve, protect, develop, and where possible, restore or enhance the resources of the nation's coastal zone". The Act established the National Coastal Zone Management Program, which is a voluntary partnership between the Federal government and coastal states and territories, and requires that all Federal actions are consistent, to the maximum extent practicable, with the enforceable policies of a coastal state's federally approved Coastal Management Plan. The New York State CMP was established in 1982 with NYSDOS serving as the lead agency. Both pilot areas are within the New York coastal zone and any Federal action within these areas must be evaluated for consistency with the NYS CMP policies.

5.8.2. Environmental Consequences

No-Action Alternative

Under the no action alternative, there would be no impact to the coastal zone.

Proposed Action:

The proposed action is consistent with the NYS CMP policies. The larger FIMP project was found to be consistent with the NYS CMP policies (see Appendix G of the FEIS). The District determined that the larger FIMP project's consistency determination was sufficient and that no additional determination was needed for the pilot. NYSDOS concurred with the District's determination on 16 June 2025.

5.9. Recreational Resources

See Section 3.8.3 of the FEIS for a description of the recreational resources in the larger FIMP Project area.

5.9.1. Affected Environment

The back bay waters are commonly used for commercial and recreational fishing, boating, swimming, and other water-related sports (i.e., kayaking and sailing). Within the pilot areas, recreational facilities include the private Fred Shore Beach Club (Frederick Shores), the private Mastic Beach Property Owners Association Marina (Mastic Beach), and the Johns Neck Tidal Wetlands area (Mastic Beach) which provides hiking, fishing, and waterfowl hunting opportunities.

5.9.2. Environmental Consequences

No-Action Alternative:

Under the no action alternative, there would be no changes to recreational resources within the project area.

Proposed Action:

Under the proposed action, minor, short-term impacts to recreation are anticipated. Access to existing recreational resources may be rerouted as construction is underway. Impacts are anticipated only during active construction in the vicinity of recreational areas and is not expected to be long-term. Therefore, impacts to recreation are expected to be at most minor and short-term.

5.10. Socioeconomic Conditions

See Section 3.8.3 of the FEIS for a description of the recreational resources in the larger FIMP Project area.

5.10.1. Affected Environment

The U.S. Census Bureau's (USCB) 2023 American Community Survey (ACS) 5-year estimates were used to assess the socioeconomic conditions within the two pilot areas and are summarized in the Table below. For each pilot area, the census tracts that overlapped the pilot areas were selected; for Frederick Shores this was census tracts 1244.01 and 1246.01, and for Mastic Beach this was census tract 1595.09. The data for the State, the county, and the census tracts were utilized in this analysis and are summarized in Table 3.

Location/Tract	Population	Percent Minority	Unemployment Rate	Median Household Income	Percent Poverty
New York State	19,872,319	42.93%	6.20%	$84,578.00	13.70%
Suffolk County	1,525,680	31.11%	4.60%	$128,329.00	6.40%
Frederick Shores					
1244.01	3,997	6.83%	5.50%	$116,319.00	9.30%
1246.01	2,565	11.93%	2.40%	$141,827.00	2.70%
Mastic Beach					
1595.09	3,917	29.21%	4.90%	$107,730.00	37.20%

Table 3: Comparison of census data for pilot area census tracts, Suffolk County, and New York State

5.10.2. Environmental Consequences

No-action Alternative:

Without the implementation of the proposed action, the structures in the pilot area may not be elevated. If the structures remain at their current elevations, they would likely be subject to further structure and property damage in future storm events. This could result in a loss in property value, causing residents to move out of the project area which could potentially negatively impact the local economy. The no action alternative may result in potential impacts to the socioeconomics of the pilot area.

Proposed Action:

Under the proposed action, the risks of storm-related property damage during future storm events would be managed. Residents would remain living in the project area after the structure elevation and their incomes would continue to contribute to the local economy. As in the FEIS, impacts of the nonstructural pilot program are expected to affect all populations within the pilot areas equally, and no impacts would be disproportionately borne by minority and/or low-income populations under the proposed action. The proposed action would therefore have a minor, long-term beneficial impact on socioeconomics in the pilot areas.

5.11. Cultural Resources

5.11.1. Affected Environment

See Section 3.10.5 of the FEIS for a broad discussion of the existing cultural resources on the mainland portion of the larger FIMP Project area.

Cultural resources are historic properties as defined by the National Historic Preservation Act (NHPA), cultural items as defined by the Native American Graves Protection and Repatriation Act (NAGPRA), archaeological resources as defined by the Archaeological Resources Protection Act, sacred sites as defined by EO 13007 to which access is afforded under the American Indian Religious Freedom Act, and collections and associated records as defined by 36 CFR 79. NEPA requires consideration of "important historic, cultural, and natural aspects of our natural heritage." Consideration of cultural resources under NEPA includes the necessity to independently comply with the applicable procedures and requirements of other federal and state laws, regulations, EOs, Presidential Memoranda, and Army guidance.

The NHPA of 1966, as amended (Public Law 89-665; 54 USC §300101 et seq.), establishes the policy of the federal government to provide leadership in the preservation of historic properties and administer federally owned or controlled historic properties. Section 106 of the NHPA (54 USC §306108) requires federal agencies to consider the effect an undertaking may have on historic properties; its implementing regulations, 36 CFR Part 800, describe the procedures for identifying and evaluating historic properties; assessing the effects of federal actions on historic properties; and consulting to avoid, reduce, or minimize adverse effects. The Proposed Action is a federal undertaking as defined by 36 CFR §800.3.

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, an assessment of effects to cultural resources was performed during the feasibility study for the FIMP Project that included a review of the history of the project area, previously documented historic properties and archaeological sites, and a site visit to document current conditions at the site and to determine if there are any structures within the proposed project area and vicinity with the potential for NRHP eligibility that may be impacted by the Project.(USACE 2020, GRR). In 2020 a Programmatic Agreement (PA) was signed by the District and the New York State Historic Preservation Office (NYSHPO). This PA account for the adverse effects to historic properties and archaeological resources throughout the Project. Stipulations III and V require the District identify any historic properties in the Project mitigate for any adverse effects (USACE 2020, PA).

An Environmental Impact Statement was produced in 2020 for the FIMP Project. The report and its findings were based on research from the State Historic Preservation Office's (SHPO) online database CRIS and a 2006 Historic Structure Survey Report. The EIS reported approximately seventy archaeological sites with the entirety of the Project Area (USACE 2020). Of these, approximately, 27 represent historic period archaeological sites, including three historic cemeteries, and 43 prehistoric sites. It also identified

approximately 153 individual buildings, structures and objects that are listed or have been determined eligible for the National Register within entire Project Area (USACE 2020). It also identified seven Historic Districts in the Project Area. None of the previously identified archaeological resources or Historic Districts are located within the Pilot Area Boundaries. Two Listed historic structures are within the Mastic Beach Pilot Area, St. Jude's Parish Center and Mastic Beach Fire Department; however, they are not among the 70 structures identified for the pilot nor are they within the APE for the pilot.

The APE for this pilot is Fredrick Shores in the Town of Babylon and Mastic Beach in the Town of Brookhaven. The pilot includes the elevation of up to 70 of structures within the pilot areas to 3.5 feet above the base flood elevation (BFE). The elevation will consist of shutting off utilities; excavating the areas surrounding the structure to install lifting beams; lifting the structure with jacks; demolishing the existing foundation/substructure; installation of new foundation/substructure; lowering the structure and reconnecting the utilities.

Elevation will have an adverse effect on the elevated properties. The level of adverse effect is related to several factors including property style, height of elevation and physical relationship to surrounding buildings (URS 2006). Elevation may also have an indirect adverse effect on historic properties. It would diminish the integrity of the setting within a district or other historic properties. It may also have an adverse effect of historic and prehistoric sites within or next to the footprint of the elevation and ground disturbance (URS 2006).

The 2006 Historic Resource Study and EIS prepared as part of the FIMP feasibility study sampled only 1 percent of a random 10 percent survey area on the mainland and was not a comprehensive survey of all potentially affected resources (URS 2006). In accordance with the Programmatic Agreement, in 2025 a historic structure survey was done on the 70 homes in the Architectural APE. The goal of this survey was to identify if any of the structures within the APE were eligible for listing on the National Register of Historic Places (NRHP). Of the 70 structures surveyed 67 of them were over 50 years old. These 67 structures, located in Mastic Beach and Babylon, include" mid-to-late -twentieth-century single family dwellings" (Dewberry 2025). Two of these properties were identified for further evaluation. The results of this evaluation recommended 15 Milton Road in Babylon and 502 Riviera Drive in Mastic Beach for listing in the NRHP.

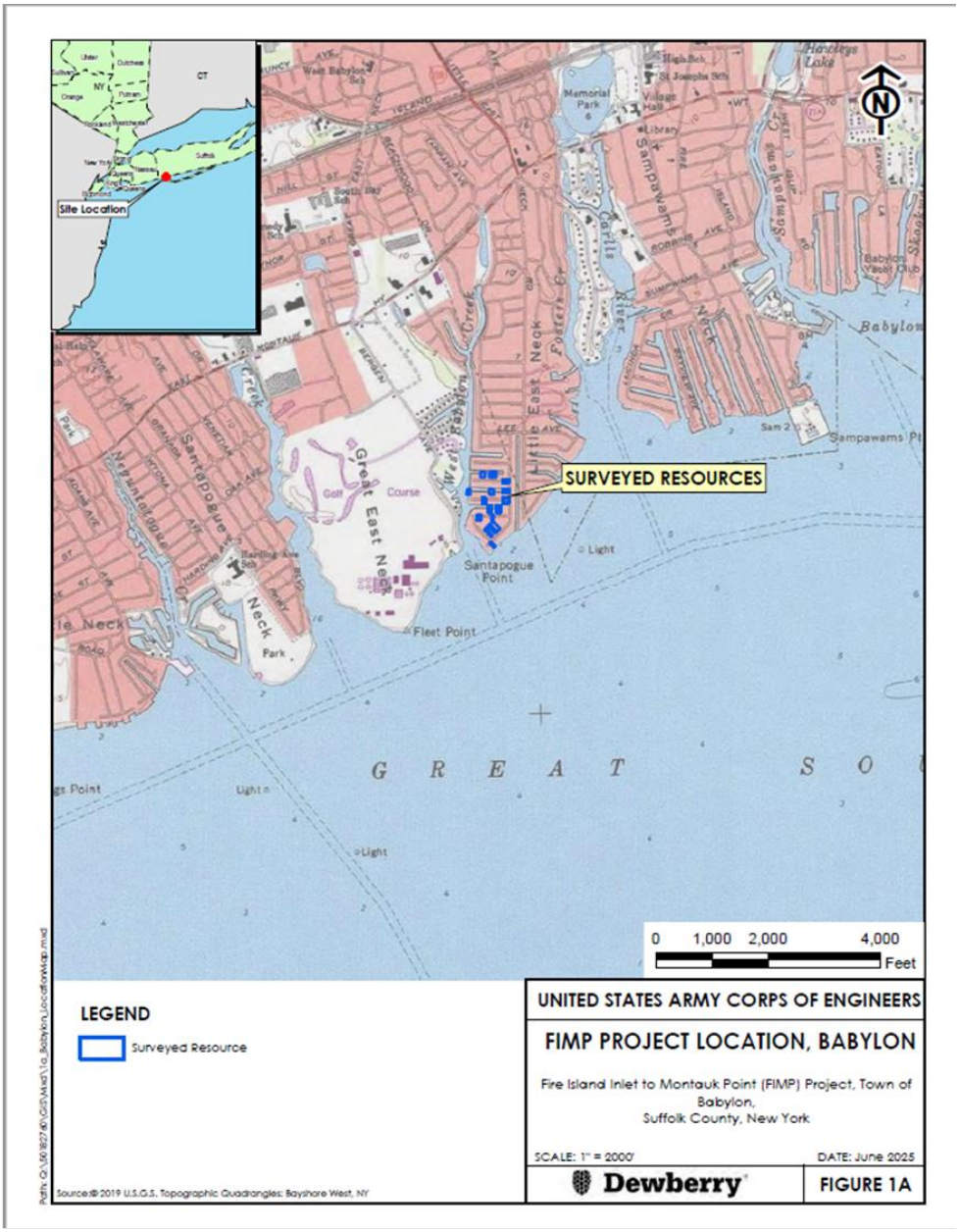

Figure 4: Project Location Babylon, (Dewberry 2025)

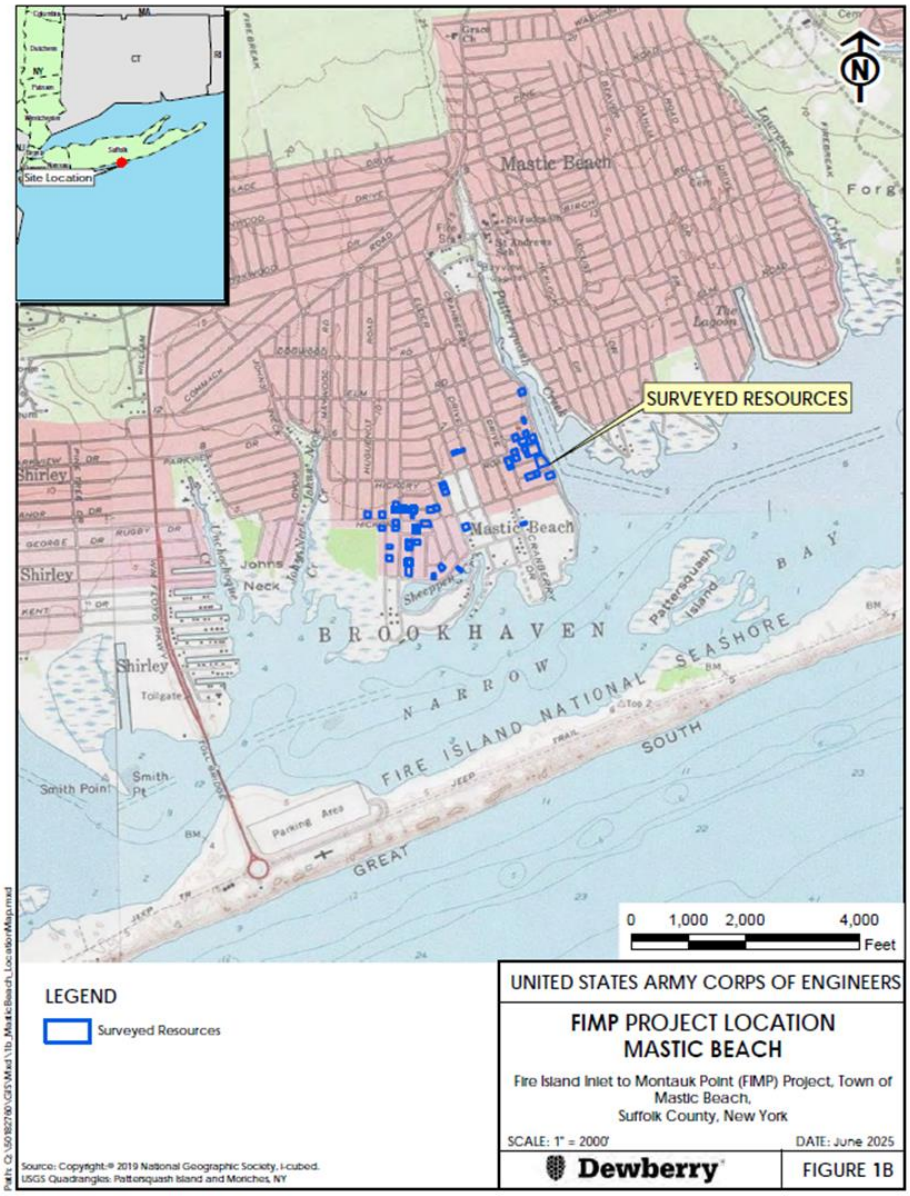

Figure 5: Project Location Mastic Beach (Dewberry 2025)

15 Milton Road, Babylon

15 Milton Road is a one-story Contemporary- style residential dwelling with vertical standing seam exterior wood siding and an asymmetrical roof with multiple planes. It has a clerestory windows facing east towards Milton Road, long and narrow windows on the facade, and entryway obscured by a wood slat privacy wall. The property was built in 1954 and features Contemporary design features. The property is architecturally distinct in comparison to the styles utilized by nearby homes. It is notable as a single example of the Post-War Contemporary style (Dewberry 2025). Due to the rarity of this style in the area and the unusual exterior materials 15 Milton Road was recommended for listing on the NRHP

under criterion C for places embodying the distinctive characteristics of a type, period, or method of construction; or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction (Dewberry 2025).

Figure 6: 15 Milton Drive, Babylon (Dewberry 2025)

502 Riviera Drive, Mastic Beach

502 Riviera Drive is a one and a half story Cape Cod style dwelling with a distinctive stone exterior, side gabled slate roof and stone chimney running along the south elevation. A set of casement bay windows with multi-pan glazing accented by a brick windowsill are positioned to the left of the front door (Dewberry 2025). The second story features twin gabled dormers with double casement windows and multi-paned glazing. At the south elevation, additional architectural detailing can be seen in the use of red brick coursing between the first and upper floors and framing the window opening, providing material and color contrasts with the cool-toned stone exterior (Dewberry 2025). The home was built in 1938 and is a significant example of a Cape-Cod style home. Cape Cod-style homes are rare in the area, as is the composition of exterior materials used. Therefore, 502 Riviera Drive was recommended for listing in the NRHP under Criterion C for places embodying the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction (Dewberry 2025).

Figure 7: 502 Riviera Drive, Mastic beach (Dewberry 2025)

History of Long Island

Long Island has a long and varied history with settlements dating back 10,000 years. The Native Americans arrived on Long Island over 10,000 years ago (URS 2006). While sites were rare during the Paleo-Indian period (11,000-10,000 B.P.) artifacts allude to the presence of Paleo-Indians throughout the New York area. As social organization and technology changed in the Archaic Period (10,000- 3,700 B.P.) more sites are evident with evidence suggesting a seasonal pattern of migratory land use (URS 2006). The Woodland Period showed increased sedentism and reliance of plant food sources along with the manufacture of pottery.

The Native American People of Long Island are considered Algonquian, a linguistic categorization based on the spoken languages from the Algonquian family (URS 2006). Although the Native Americans of the East End of Long Island existed in distinct bands and spoke Mohegan with a Montauk dialect. They were hunters, gathers, and small-scale subsistence farmers. The also harvested shells from Whelk and Quahogs to turn them into colorful beads for currency, called wammans or wampum (URS 2006).

Though England's imperialistic claim to New England came earlier, the Dutch were the first to colonize the area along the Hudson River and what is today, Manhattan. The Dutch began to settle along the Western Long Island in 1638 but turned away English settlers

(URS 2006). By 1640 English colonists crossed the Long Island Sound from nearby areas such as Connecticut and Massachusetts. They settled in areas that are known today as Southold, Southampton and East Hampton in the 1640s (Dewberry 2025). Suffolk County officially became one of the twelve original counties of the Provence on New York in 1683. After the Revolutionary War, Long Islanders on the East End grew industries that capitalized on the natural resources available to them, lumbering, paper production, charcoal production, agriculture and shipbuilding (URS 2006). These settlements grew into self-sufficient towns and smaller satellite villages supplying Manhattan and Connecticut with vital goods.

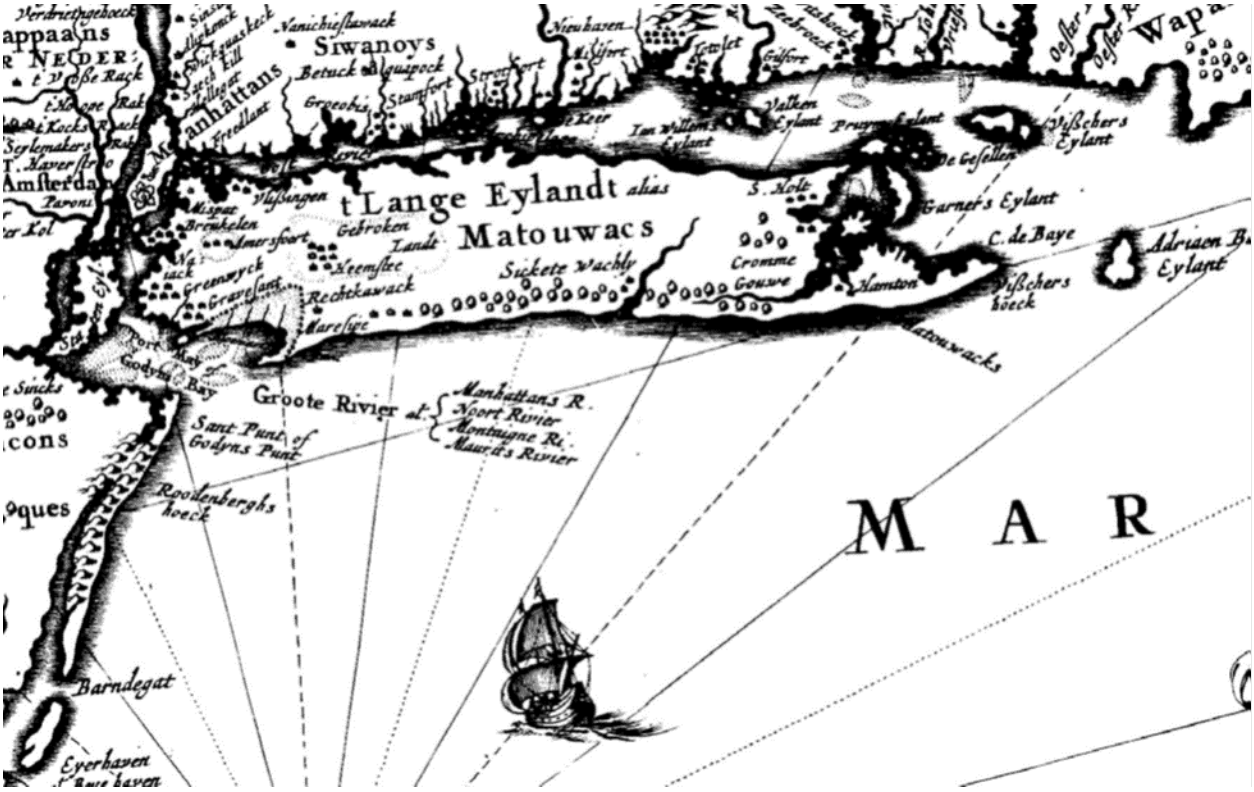

Figure 8: 1656 Visscher Map of New England and New Belgium (URS 2006)

Town of Babylon

The Town of Babylon was founded in 1872 and was incorporated in 1893. It began as a town that supported industries related to fishing, clamming and boat building but in 1867 the South Side Railroad spurred the development of Babylon into a summer resort town (Town of Babylon 2025). The construction of Babylon Station initially connected Jamaica, Queens with Babylon, Long Island making the connection to New York City more accessible.

Later in the 20th century the arrival of the automobile caused a major impact on the Town of Babylon. In the mid-1900s farms, country estates and resorts were replaced by suburban neighborhoods (Town of Babylon 2025). After World War II however, the greatest period of growth occurred. From 1940-1960 there was a demand for housing for residents working in

local defense plants and New York City commuters. Roadways, parkways and train stations were developed and expanded to meet the demand of connecting Long Island to New York City (Town of Babylon 2025). The population grew from 45,556 in 1950 to 142,309 in 1960. Today Babylon is the most densely populated towns in Suffolk County with around 218,000 residents over about 52 square miles (Town of Babylon 2025).

Town of Mastic Beach, Brookhaven

The Township of Brookhaven was established in 1655 by a group of English settlers who purchased the land from the Setalcott tribe. When Long Island officially became part of the colony of New York in 1666, Governor Richard Nicholl granted Brookhaven a patent establishing the name and lands and allowing additional land purchases. In 1686 a representative government was established. Brookhaven also played an important role during the Revolutionary War supplying General Washington with spy information (Dewberry 2025).

Mastic Beach is located within the Town of Brookhaven. Like the Town of Babylon, Mastic Beach saw a spur of development with the opening of Forge Train Station (later Mastic Station) in 1882 (Dewberry 2025). This changed Mastic Beach from a farming, fishing and whaling town to a summer resort town as accessibility to New York City grew.

In 1896 Frank and Hannah Lawrence purchased 225 acres known as the Lawrence estate (Dewberry 2025). In 1926, the Brooklyn Citizen newspaper acquired the land and divided it into lots. These small, affordable lots were sold to the middle-class population and by 1940 the development had grown to 1000 full time residents and 4000 summer residents (Dewberry 2025). Mastic Beach continued to function as a middle-class resort town until the 1970s. Today the Town of Brookhaven comprises more than 325 square miles, including 125 miles of shoreline.

5.11.2. Environmental Consequences

No Action Alternative

The No Action Alternative would leave the homes as they are in their current state. No construction would occur. However, due to the risk of the homes flooding during a storm event there is potential of the homes to be damaged by flood waters. This would lead to potential adverse effects on the historic nature of the homes. Therefore, the No Action Alternative could have potential adverse effects on historic properties.

Proposed Action

The Preferred Alternative was evaluated under Section 106 in accordance with stipulations III and V of the PA for both direct and indirect effects to cultural resources of construction, operation, and maintenance.

Based on the previous investigations carried out for the Project and the assessment of the proposed action the District has determined that the archaeological APE for both Pilot Areas, specifically the areas around the building foundations, have a low sensitivity for archaeological resources due to the inherent ground disturbance associated with original building construction. Therefore, the excavation around the structures to remove and replace the foundation and utilities are not expected to have an adverse effect on below ground cultural resources at any of the 70 structures. Should excavation be proposed beyond that which is required to replace existing foundations and utilities archaeological investigations will be required in consultation with the NYSHPO.

Sixty-eight of the seventy structures included in the pilot study do not meet the criteria for listing on the NRHP and are not located within a historic district or nearby any NRHP eligible or listed resources, therefore the proposed action for those sixty-eight structures will not adversely affect cultural resources. The proposed action has a potential to adversely affect two NRHP-eligible structures that were identified during the architectural survey, 15 Milton Road and 502 Riviera Drive. The process of raising the structures will change their elevation, access, and viewshed and the necessary treatments to adapt the structure have the potential to affect the structures' ability to meet the NRHP Criteria.

In accordance with the PA, as the District develops plans for the elevation of these structures, it will consult with the NYSHPO to ensure that the elevation designs and treatments minimize or avoid adverse effects to the historic properties and will develop a treatment plan if necessary to guide the implementation of the project. Further correspondence can be found in Appendix A.

The parts of the property to be affected by nonstructural activities will be identified by an Architectural Historian who will assist in developing alternatives to minimize and mitigate for adverse effects. If appropriate, a treatment plan will be developed for the raising of the historic structures, 15 Milton Road and 502 Riviera Drive, that will guide construction activities to protect the historic structures to the greatest extent possible during construction and to ensure the historic materials are not damaged and if necessary, data and historic materials are salvaged from the structure in the process of the work. These plans will adhere to the Secretary of the Interior's standards for Rehabilitation (36 CFR Part 68), Section 106 of the National Historic Preservation Act of 1966 and Stipulation V of the PA and all activities will be carried out in consultation with the NYSHPO.

5.12. Transportation

Section 3.11.1 of the FEIS discusses the transportation resources along the mainland portion of the larger FIMP Project area.

5.12.1. Affected Environment

To the north of the Mastic Beach and Frederick Shores pilot areas are the Sunrise Highway (Route 27) and Montauk Highway (Route 27A), respectively, which provide east-west access across the southern portion of Long Island. Local roads within the pilot areas connect to these highways to the north.

There is no public transportation within the boundaries of the pilot areas. North of Mastic Beach, there are five bus stops on Bus Route 66 that are located along Neighborhood Road. North and northwest of the Frederick Shores pilot area there are 10 bus stops which operate Bus Routes 2 and 10. The Montauk Branch of the LIRR provides passenger railroad service from Montauk Point to points west, including NYC. The LIRR stations closest to the pilot areas are the Mastic-Shirley station and Babylon station to the north.

There are no airports or helipads within the pilot areas. Likewise, there are no public ferry services. There is only one marina, E&P Marine Services, located in the Mastic Beach pilot area.

5.12.2. Environmental Consequences

No-Action Alternative:

Under the no action alternative, there would be no impacts to transportation resources within the pilot area.

Proposed Action:

Under the proposed action, there would be temporary minor impacts to transportation within the pilot areas. Traffic may be rerouted in the vicinity of active construction. Additionally, there may be local traffic slowdowns in front of elevated structures as drivers may be curious about the construction activity. These impacts are expected to be minor and access in and around the pilot area would be maintained.

5.13. Visual Resources

5.13.1. Affected Environment

Section 3.12 of the FEIS discusses visual resources within the larger FIMP Project area. Both pilot areas are largely residential, with Frederick Shores more densely developed than Mastic Beach. Visual resources in the Mastic Beach pilot area include more open space and wetlands.

5.13.2. Environmental Consequences

No-Action Alternative:

Under the no-action alternative, it is assumed that the Mastic Beach CPF would be constructed. This would enhance the open wetland area in the southeast portion of the pilot area by creating a more diverse habitat with native vegetation, which would be

aesthetically pleasing when completed and would increase the visual resources in that portion of the project area.

Proposed Action:

Under the proposed action, the elevated structures would alter the viewshed for neighboring properties as eligible structures would be raised to 3.5 feet above BFE. However, as both pilot areas are largely residential and many structures in the areas have been raised previously, this change would not be considered significant. Therefore, there are no significant impacts to viewshed from the proposed action.

5.14. Air Quality and Noise

5.14.1. Affected Environment

Section 3.13 of the FEIS discusses air quality and noise within the larger FIMP Project area.

Air Quality:

The Clean Air Act (CAA) and its subsequent amendments established the National Ambient Air Quality Standards (NAAQS) for seven common pollutants: particulate matter, ground-level ozone, carbon monoxide, sulfur oxides, nitrogen oxides, and lead. These air pollutants are referred to as "criteria pollutants" by the EPA because they are regulated for permissible levels based on human health and environmentally based guidelines. The General Conformity Rule, under the CAA, applies to all Federal actions that are taken in designated nonattainment areas to ensure projects or maintenance activities meet national standards for air quality.

Based on the NAAQS, Suffolk County is within the New York, Northern New Jersey, Long Island, Connecticut nonattainment area. This area is currently classified as "severe" nonattainment for the 2008 8-hour ozone standard and "serious" nonattainment for the 2015 8-hour ozone standard (USEPA, 2023). The nonattainment area is part of the Ozone Transport Region. Ozone is controlled through the regulation of its precursor emissions, which include oxides of nitrogen (NOx) and volatile organic compounds (VOCs). The General Conformity applicability trigger levels for Suffolk County for "severe" ozone nonattainment areas are: 25 tons of NOx 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 NOx per year and 50 tons of VOC per year (40 CFR§93.153(b)(1)).

Noise:

The dominant land use in the pilot areas is residential, which generally has outdoor day-night sound levels that range from 59 to 78 A-weighted decibels (dBA) (USACE, 2020).

5.14.2. Environmental Consequences

No-action Alternative:

Under the no action alternative, there would be no effect on air quality or noise within the pilot areas.

Proposed Action:

Air Quality:

The proposed action would result in temporary emissions from construction equipment used on site and from trucks moving to/from the site. Emissions from these sources include NOx, VOCs, SO_2, CO, and $PM_{2.5}$. Equipment may include diesel-powered generators, excavators, loaders, cranes, compressors, compactors, dozers, pumps, concrete saw, and off-road trucks. Emissions were estimated using project planning information for the current level of design, which included anticipated equipment types, horsepower, and estimated operating hours of diesel engines powering equipment. The estimated construction emissions for ozone (VOC, NOx), $PM_{2.5}$, SO_2, and CO are below the applicable *de minimis* thresholds; therefore, construction of the proposed action is considered exempt and not applicable to General Conformity. A record of non-applicability (RONA) is provided in Appendix B.

Noise:

There would be a short-term increase in noise due to use of construction equipment during structure elevation. Typical noise levels from construction equipment are shown in Figure 9.

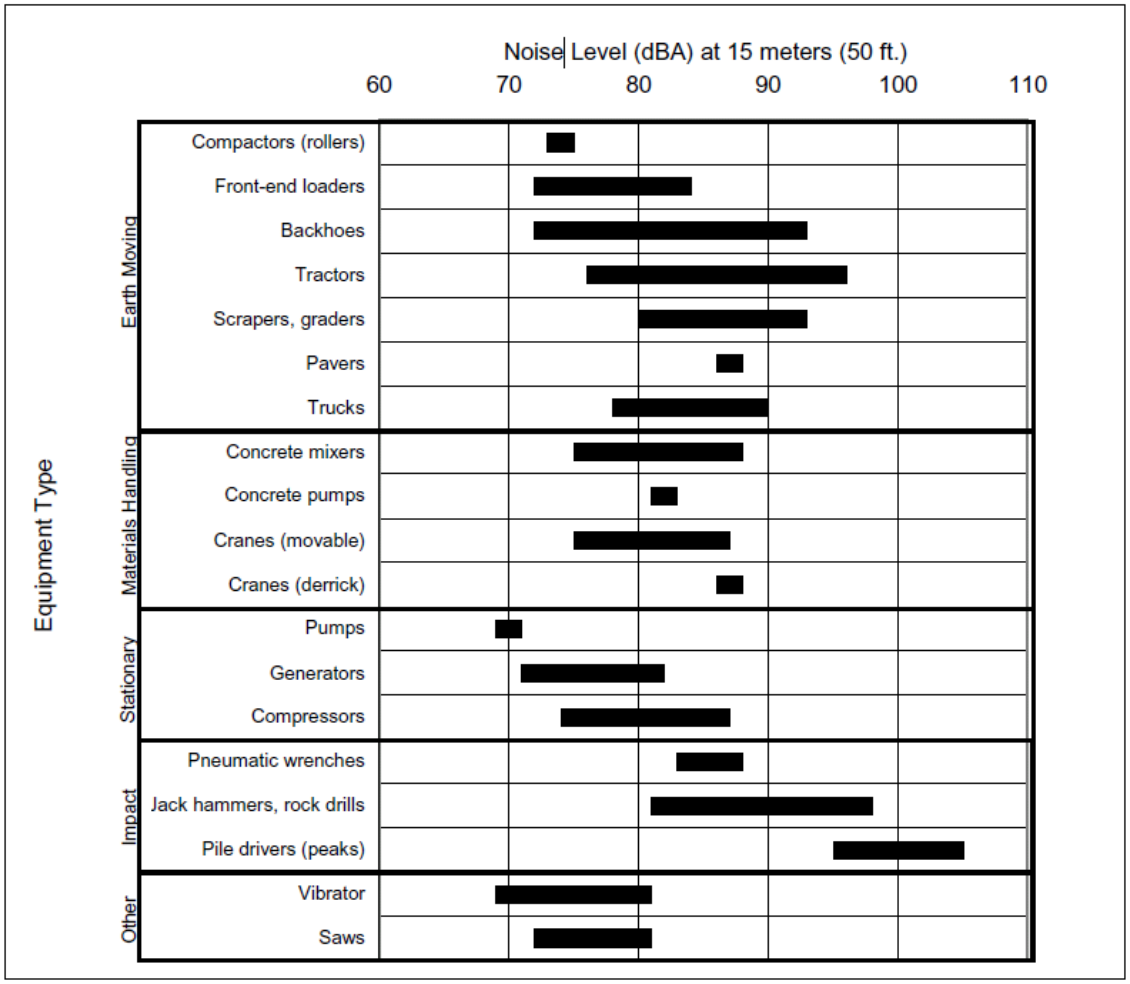

Figure 9: Typical Noise Levels from Construction Equipment (EPA 1971)

It is anticipated that multiple structures would be elevated concurrently, and that noise would be temporary and subside as construction progresses to other eligible structures in the pilot areas. Increased noise levels would be highest for the parcels surrounding structures to be elevated, this increase in noise would be temporary as active construction is expected to take approximately 4 months to complete. County noise ordinances would be followed, and construction would be limited to the hours of 7:00 a.m. and 6:00 p.m. on weekdays.

5.15. Hazardous, Toxic, and Radioactive Wastes (HTRW)

5.15.1. Affected Environment

Section 4.14 of the FEIS discusses the HTRW within the larger FIMP Project area.

The Comprehensive, Environmental, Response, Compensation, and Liability Act (CERCLA) identifies hazardous substances as any substance, element, compound, mixture, solution, waste, and/or toxic or air pollutant listed in one of the following: Federal Water Pollution

Control Act, Solid Waste Disposal Act, Clean Air Act, or the Toxic Substances Control Act (TSCA). Potential HTRW sources for the project include lead paint, asbestos, and potentially home storage of household hazardous materials. Other environmental concerns not listed or defined as hazardous but of interest include petroleum (in home oil tanks) and mold. To address HTRW and other environmental concerns, USACE will use a phased approach, first conducting Phase I Environmental Site Assessments (ESAs) for eligible properties during the design phase. All work will be done in accordance with ASTM's E1527-21 standard and will include visual observations for suspected asbestos containing building materials and mold, in addition to lead paint screenings with an X-Ray Fluorescent analyzer.

For projects where HTRW sources are identified, USACE will conduct Phase II investigations where necessary, including soil, asbestos, mold and lead paint testing. All Phase II work will be conducted in accordance with ASTM's Phase II Standard - E1903-19, New York State Department of Labor's Industrial Code 56 for Asbestos Inspections, which aims to conform to federal requirements listed in the Asbestos, Hazard, Emergency, Response Act, and USEPA's Renovation Repair Rule (RRP) for Lead Paint, which was issued under the authority of TSCA.

5.15.2. Environmental Consequences

No-Action Alternative

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

Proposed Action

Under the proposed action, building materials potentially containing asbestos, lead paint and mold, could be disturbed and impacted soil may be uncovered. This concern will be mitigated by conducting Phase I and II ESAs, which help identify Recognized Environmental Conditions and other environmental concerns prior to construction, informing homeowners of remedial steps necessary prior to home raising. Despite best attempts to identify these concerns early, there is the possibility that concerns will be encountered during construction, in this event, work will stop, and the contractor will notify USACE for further instructions on how to proceed.

It is the responsibility of the homeowner to abate/remediate any identified and impacted soil, asbestos, lead-paint, or mold that will be disturbed during construction. All materials will be removed/disposed of safely and properly in accordance with local, State and Federal regulations [e.g., NY State Department of Labor Industrial Code 56, USEPA's Lead RRP Rule, USEPA's Resource Conservation and Recovery Act (RCRA)].

6. Cumulative Effects

No Action Alternative

Cumulative impacts of the no action alternative are described in the FEIS.

Proposed Action

Reasonably foreseeable future actions that may occur within the pilot project area that may contribute to cumulative impacts include construction of the Mastic Beach CPF. Cumulative impacts of the larger FIMP Project, including all CPFs, are described in Section 4.15.4.5 of the FEIS. The cumulative effects of the CPF and proposed action are not expected to be significant.

7. Summary of Impacts

The impacts of the proposed action are summarized in Table 4.

Resource	Proposed Action Impacts
Topography, Geology, and Soils	No impacts to topography and geology. Temporary minor impacts to soils during construction to be minimized through implementation of best management practices.
Water Resources	No impacts.
Wetlands	No impacts.
Vegetation	Temporary and minor impacts; impacted vegetation to be restored to pre-construction condition.
Fish and Wildlife	No impacts to aquatic species. No impact to fish and wildlife habitat. Temporary short-term impacts to bird and mammal species, with implementation of vegetation clearing window to be protective of nesting migratory birds. Potential impact to herptile species in construction areas.
Rare Species and Habitats	No impact to sandplain gerardia, piping plover, roseate tern, or monarch butterfly. May affect, but not likely to adversely affect red knot or listed bat species. Coordination with USFWS is ongoing.
Land Use and Development	No impact.
CZMA	No impact.
Recreation	Temporary short-term impacts during active construction as access may be rerouted.
Socioeconomics	Beneficial impacts to local economy.
Cultural Resources	A treatment plan will be developed for the two historic structures identified.
Transportation	Temporary, minor impacts during active construction as traffic may be rerouted, and slowdowns may be experienced in the immediate vicinity of structures being elevated.

Resource	Proposed Action Impacts
Visual Resources	Localized impacts to viewshed of properties neighboring the elevated structures.
Air Quality and Noise	Air emissions are below the *de minimis* thresholds and a RONA has been drafted. Temporary short-term increase in noise during active construction.
HTRW	No impacts. All identified hazardous material that may be disturbed during the proposed action will be removed and disposed of in accordance with the relevant regulations.

Table 4: Summary of Impacts of the Proposed Action

8. Public and Agency Coordination

Public meetings on the nonstructural pilot were held in Babylon on 22 August 2024 and in Mastic on 21 August 2024. Additionally, open office hours were held for homeowners to ask questions in Babylon on 5 September 2024 and 13 November 2024, and in Brookhaven on 5 September 2024 and 12 November 2024. Cooperating agencies to the FIMP EIS (USFWS and NPS) were notified of the SEA action 20 February 2025.

A 30-day public review will be held for the Draft SEA to assist the District in evaluating the proposed action and any comments received will be reflected in the project record.

9. Environmental Compliance

Project compliance status with various laws, regulations, and executive orders are shown in Table 5 and Table 6.

Title of Law or Regulation	United States Code (U.S.C.)	Compliance Status
Abandoned Shipwreck Act of 1987	43 U.S.C. 2101	N/A
Anadromous Fish Conservation Act of 1974	16 U.S.C. 757a et seq.	N/A
Archaeological Resources Protection Act of 1979	16 U.S.C. 470aa - 470mm	N/A
Bald and Golden Eagle Protection Act of 1962, as amended	16 U.S.C 668	In Progress
Clean Air Act of 1972, as amended	42 U.S.C 7401 et seq.	In Progress
Clean Water Act of 1972, as amended	33 U.S.C. 1251 et seq.	In Progress

Title of Law or Regulation	United States Code (U.S.C.)	Compliance Status
Coastal Barrier Resources Act of 1982	Public Law 114-314	N/A
Coastal Zone Management Act of 1972, as amended	16 U.S.C 1451 et seq.	Compliant
Endangered Species Act of 1973	16 U.S.C 1531	In Progress
Fish and Wildlife Coordination Act of 1958, as amended	16 U.S.C. 661	In Progress
Flood Control Act of 1970	33 U.S.C. 549	N/A
Magnuson-Stevens Fishery Conservation and Management Act – Essential Fish Habitat Amendment	16 U.S.C. 1801	N/A
Marine Mammal Protection Act of 1972, as amended	16 U.S.C 1361	N/A
Marine Protection, Research, and Sanctuaries Act of 1972	33 U.S.C. 1401	N/A
Migratory Bird Treaty Act of 1918, as amended	16 U.S.C. 703	Compliant
National Environmental Policy Act of 1969, as amended	42 U.S.C. 4321 et seq.	In Progress
National Historic Preservation Act of 1966, as amended	54 U.S.C. Section 300101	In Progress
Native American Graves Protection and Repatriation Act of 1990	25 U.S.C. 3001	Compliant
Noise Control Act of 1972, as amended	42 U.S.C. 4901	Compliant
Resource Conservation and Recovery Act of 1976	42 U.S.C. 6901 et seq.	In Progress
Toxic Substances Control Act of 1976	15 U.S.C. 2601	In Progress
Comprehensive, Environmental, Response, Compensation and Liability Act of 1980	42 U.S.C. 9601	In Progress

Title of Law or Regulation	United States Code (U.S.C.)	Compliance Status
Asbestos, Hazard, Emergency, Response Act of 1986	15 U.S.C. 2651	In Progress

Table 5: Project Compliance Status for Federal Laws and Regulations

Executive Order (E.O.) Number	E.O. Name	Compliance Status
13690	Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input	Compliant
13186	Responsibilities of Federal Agencies to Protect Migratory Birds	Compliant
13175	Consultation and Coordination with Indian Tribal Governments	In Progress
13112	Invasive Species	Compliant
11990	Protection of Wetlands	Compliant
11988	Floodplain Management	Compliant
11514	Protection and Enhancement of Environmental Quality	Compliant

Table 6: Project Compliance Status for Relevant Executive Orders

10. References

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