

**DRAFT**  
**ENVIRONMENTAL ASSESSMENT**  
**FINDING OF NO SIGNIFICANT IMPACT AND**  
**CLEAN WATER ACT §404(b)(1) EVALUATION**

**POINT JUDITH HARBOR**  
**NARRAGANSETT, RHODE ISLAND**

**SECTION 107 NAVIGATION IMPROVEMENT PROJECT**



**PREPARED BY:**

**Environmental Resources Section, Planning Division**  
**U.S. Army Corps of Engineers, New England District**  
**Concord, Massachusetts**

**September 2018**

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## **FINDING OF NO SIGNIFICANT IMPACT**

## **CLEAN WATER ACT SECTION 404 (b)(1) EVALUATION**

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# **ENVIRONMENTAL ASSESSMENT**

## **1.0 INTRODUCTION**

The purpose of this Environmental Assessment (EA) is to present information on the environmental features of the project area and to review design information to determine the potential impacts of the proposed Point Judith Section 107 navigation improvement project and potential alternatives to the project. This Environmental Assessment describes project compliance with the National Environmental Policy Act of 1969 (NEPA) and all appropriate Federal and State environmental regulations, laws, and executive orders. Methods used to evaluate the environmental resources of the area include biological sampling, sediment analysis, review of available information, and coordination with appropriate environmental agencies and knowledgeable persons. This report provides an assessment of environmental impacts and alternatives considered along with other data applicable to the Clean Water Act Section 404(b)(1) Evaluation requirements.

## **2.0 STUDY AREA**

The Point Judith Pond and Point Judith Harbor of Refuge Federal Navigation Project (FNP) is located on the southern coast of Rhode Island within the Towns of South Kingstown and Narragansett, Washington County (Figure EA-1). The area is bordered to the east by Narragansett Bay, to the west by the Towns of Charlestown and Richmond, to the north by the Towns of Exeter and North Kingstown, and the south by Block Island Sound and the Point Judith Harbor of Refuge. The Towns of South Kingstown and Narragansett are each composed of several villages. The village of Wakefield can be found at the northern end of Point Judith Pond, while the villages of Jerusalem and Galilee straddle the entrance to the Pond at the southern end.

## **3.0 PURPOSE, NEED, AND AUTHORITY**

The purpose of this report is to provide an assessment of the potential environmental effects of the navigation improvement project proposed for the FNP at Point Judith Pond and Point Judith Harbor of Refuge (Figure EA-2). The proposed work would widen the existing 15-foot deep West Bulkhead channel by 50 feet for a distance of approximately 700 feet and then extend this same channel approximately 1,200 feet into the North Basin area at a width of 150 feet and a depth of 11 feet. An estimated 7,100 cubic yards (CY) of material would be dredged from the widening of the West Bulkhead channel and an estimated 16,600 CY from the expansion of the channel into the North Basin area. In total, approximately 23,700 cubic yards (CY) of sandy material will be removed from the improvement sections using a mechanical dredge with supporting split-hull scows. The sandy dredged material will be placed by scow in nearshore waters off of the Matunuck shoreline in South Kingstown, RI (Figure EA-3).

The Point Judith Pond and Point Judith Harbor of Refuge FNP provides access to and from the ocean for a significant number of commercial and recreational vessels. The villages of Galilee and Jerusalem contain most of the service facilities available for commercial and

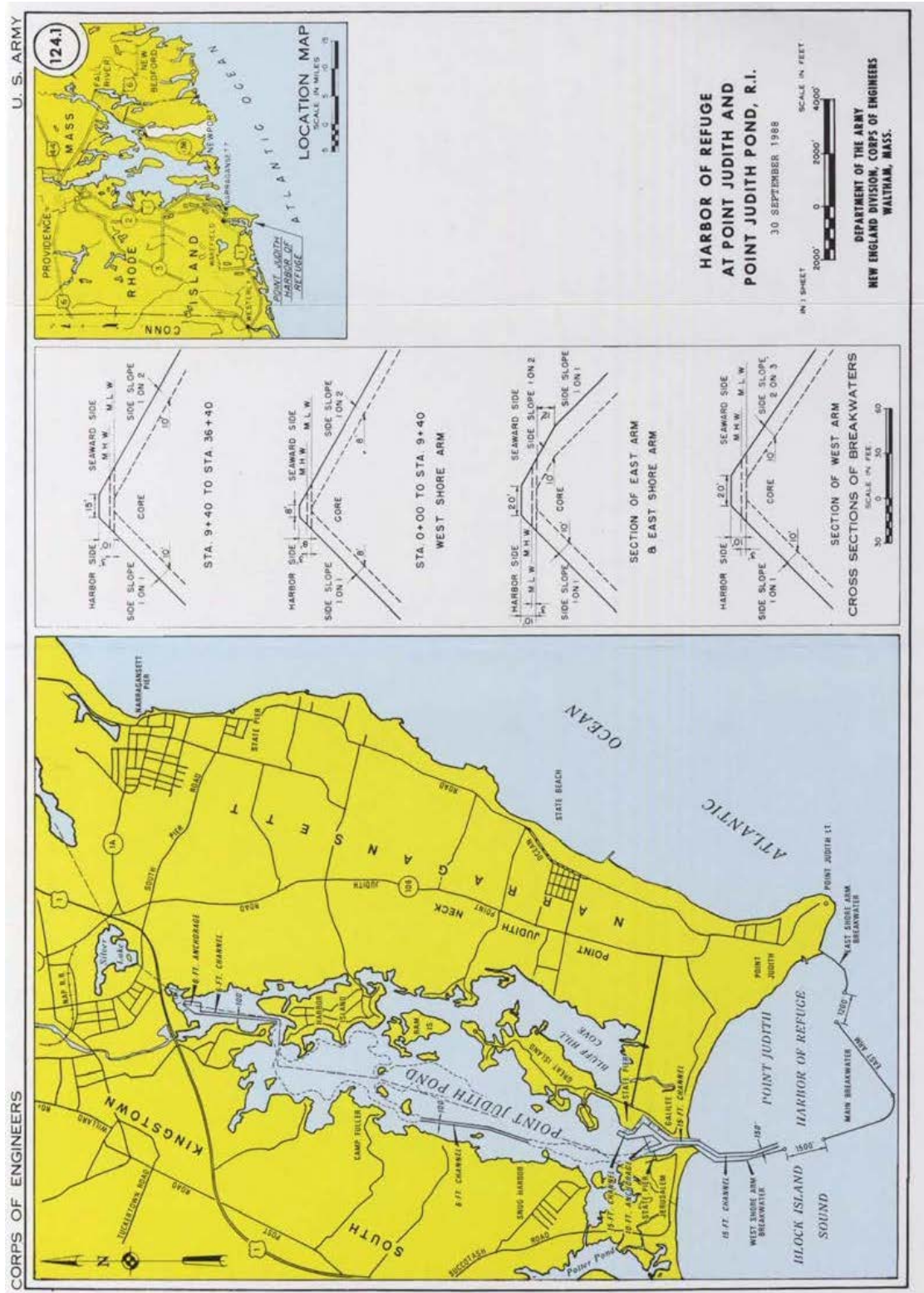
recreational boating activities. Jerusalem contains docking space as well as a State built pier. Galilee also contains a State built pier, charter fishing vessels, port for the primary subsistence ferry to Block Island, commercial fishing vessels, U.S. Coast Guard station, and shore seafood processing facilities. The proposed project is needed to provide increased efficiency in the transiting of the FNP as well as safer conditions for vessels underway.

The Federally authorized project at Point Judith Harbor of Refuge and Pont Judith Pond was adopted by the River & Harbor Act of 1890, and further modified in 1892, 1902, 1905, 1907, 1910, 1919, 1948, 1961, 1962, and 1976. The authorized project consists of three breakwaters to create the Point Judith Harbor of Refuge, navigation channels and anchorage areas. The entrance channel begins on the inside of the West Shore Arm Breakwater in Point Judith Harbor of Refuge through the breachway and continues into the Pond and is 15 feet deep below MLLW, 150 feet wide, and is approximately one-half mile long before it splits into the west branch to the State Pier in Jerusalem and the east branch to the State Pier in Galilee. A 6.6 acre, 10-foot deep MLLW anchorage is located between the east and west branch navigation channels. The navigation channel continues north of the west branch and shallows to six feet deep MLLW and reduces in width to 100 feet. This channel continues for approximately four miles until it ends at a 0.6 acre, 6-foot deep MLLW anchorage in Wakefield. Since the original improvement, Point Judith Pond has been dredged several times. A summary of major improvements since 1950, conducted by the U.S. Army Corps of Engineers (USACE), are as follows:

- 1950 – 1951 Sand arresting works construction at the entrance to the pond by placing about 9,500 tons of stone. Dredged approximately 193,700 CY of material.
- 1956 Maintenance dredging of entrance channel and pond channel. Approximately 62,300 CY removed.
- 1959 Maintenance dredging of approximately 62,500 CY of material.
- 1962 Maintenance dredging for removal of 47,000 CY of shoal materials, restored to authorized 15-foot depth.
- 1971 Maintenance dredging for removal of 19,800 CY of shoal materials restored authorized 15-foot depth.
- 1977 Maintenance dredging for removal and side-casting of 72,000 CY of shoal material, restored to authorized 15-foot depth.
- 2009 Maintenance dredging for removal and near shore placement of 24,000 CY of shoal material, restored to authorized 15-foot depth.

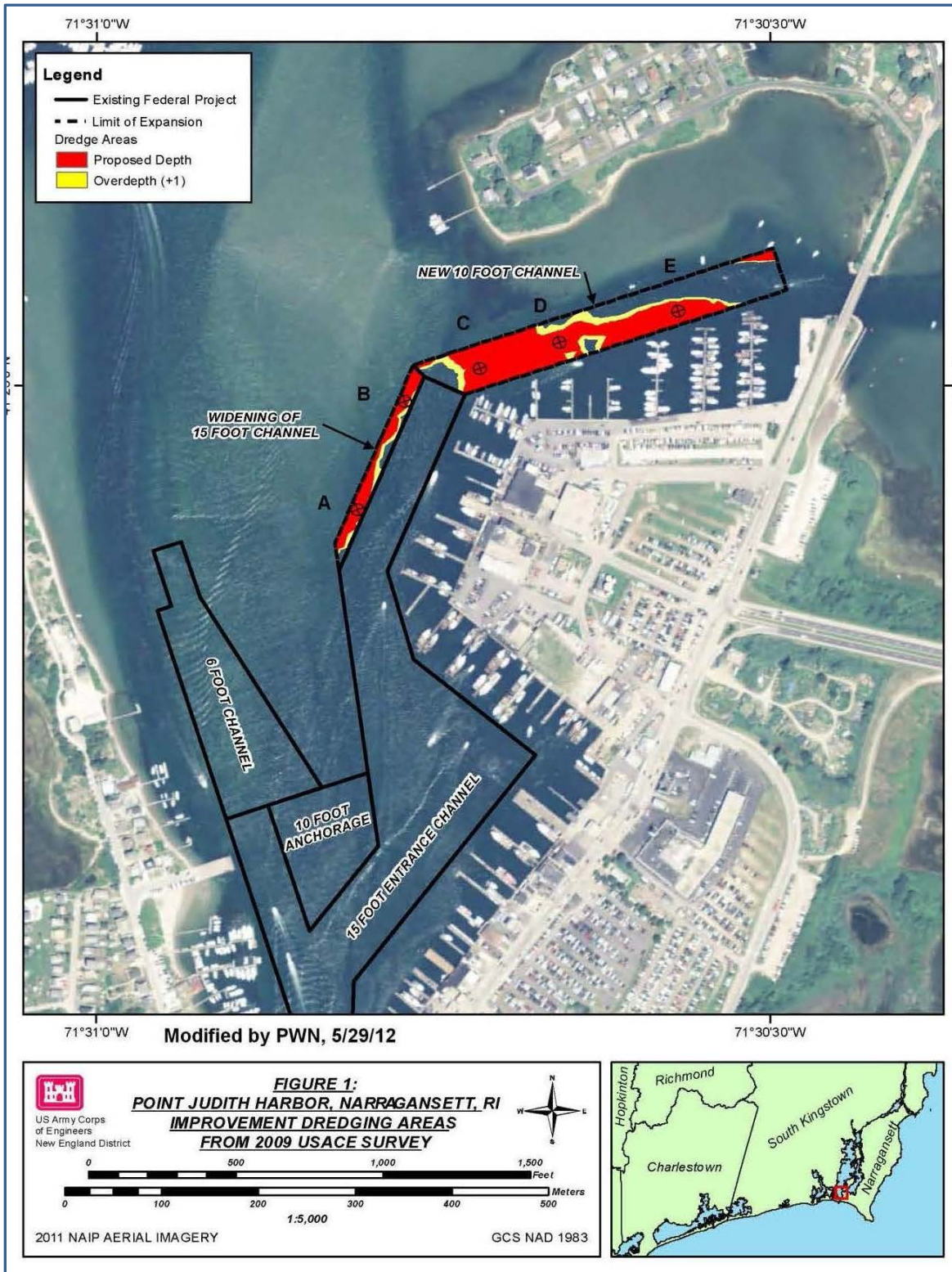
This Section 107 study is authorized under the continuing authority of Section 107 of the River and Harbor Act of 1960, as amended.

**Figure EA-1**  
**Existing Federal Navigation Project**  
**Point Judith Harbor of Refuge and Point Judith Pond, Rhode Island**



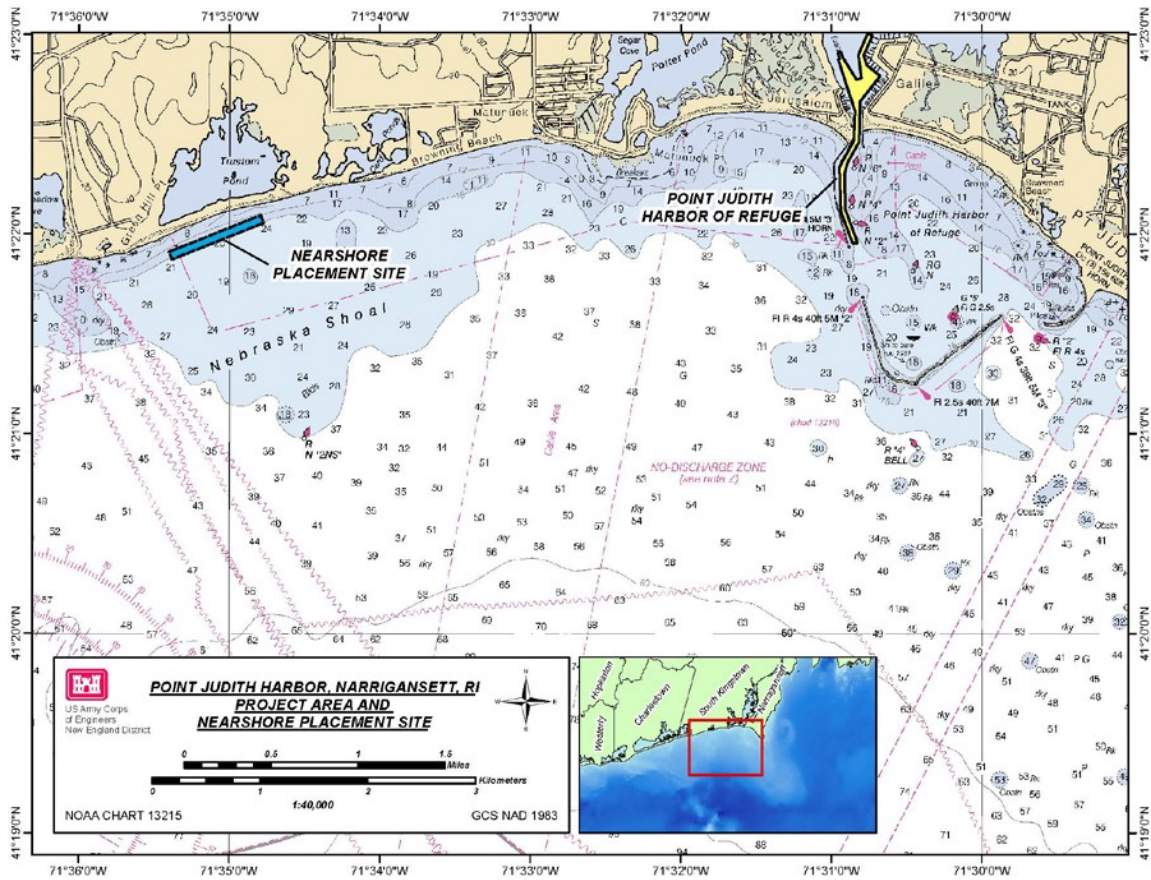


**Figure EA-2**  
**Proposed Improvement to the Point Judith Harbor of Refuge**  
**and Point Judith Pond Federal Navigation Project**

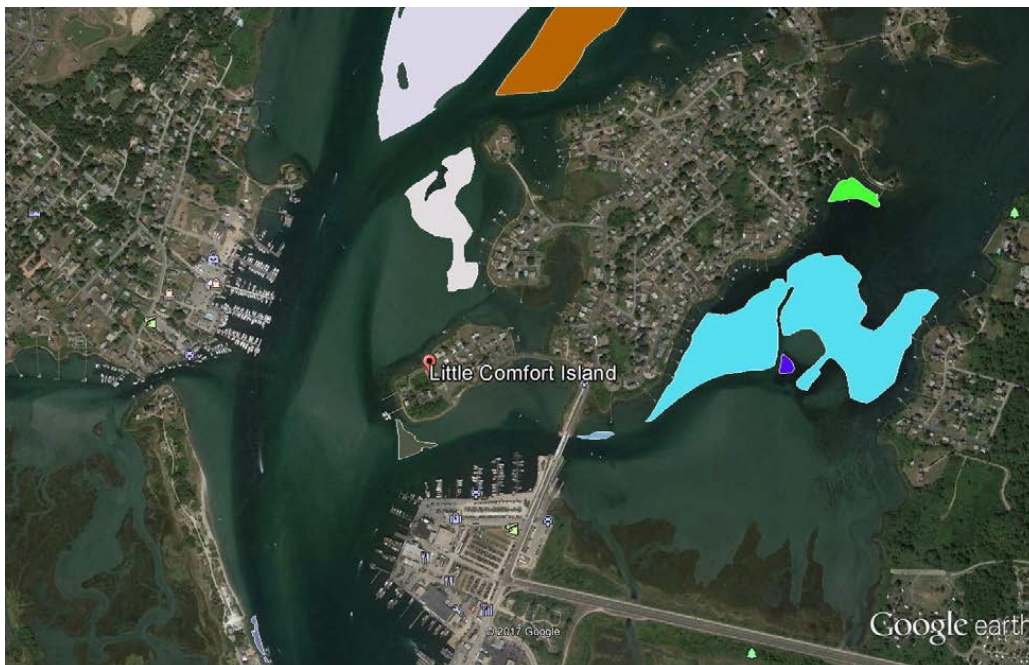




**Figure EA-3 – Proposed Location for Placement of Dredged Material from the Point Judith Harbor Navigation Improvement Project.**



**Figure EA-4 – Eelgrass Resources within Point Judith Pond (RIGIS, 2017)**



## 4.0 PROJECT DESCRIPTION

The proposed project includes the widening of the existing 15-foot deep West Bulkhead channel by 50 feet for a distance of approximately 700 feet and extending this same channel approximately 1,200 feet into the North Basin area at a width of 150 feet and a depth of 11 feet. Approximately 23,700 cubic yards (CY) of sandy material will be removed from the improvement sections using a mechanical dredge with supporting split-hull scows. The sandy dredged material will be placed in nearshore waters off of the Matunuck shoreline in South Kingstown, RI, approximately three miles west of the harbor. The dredged material will be placed in approximately 15 to 18 feet (MLLW) of water to maximize the beneficial use of dredge material for beach nourishment. Construction will occur between October 1 and January 31 of any given year in which funding becomes available and is expected to take two to three weeks to complete.

## 5.0 ALTERNATIVES

### 5.1 NO ACTION

The principal navigation issue at Point Judith is the lack of adequate access to the berthing and offloading areas for commercial fishing vessels. The Point Judith Pond commercial fishing fleet has maximized the available berthing and offloading space. The lack of appropriate unloading facilities has caused delays of up to 48 hours for some boats as they wait to unload their catch; resulting in excess labor and fuel costs. The need at Point Judith is to make modifications to existing channels and/or provide new channels to alleviate the commercial fleet's navigation problems. The larger, deeper draft vessels now utilizing Point Judith Pond as a base of operations must be better accommodated if the commercial operators at Point Judith are to continue to be competitive in the New England region fish industry.

If the federal government takes no action to improve the navigation capabilities in the Point Judith Pond area the existing commercial fleet will continue to experience delays, groundings and berthing difficulties reducing the efficiency of commercial fishing operations, and result in significant loss to the economy of the region and a reduced capability of the port to function for its intended purpose.

### 5.2 NON-STRUCTURAL ALTERNATIVES

Nonstructural measures involve those that would achieve the goals of the proposed federal action, but without resorting to structural improvements. In this case, the planning objectives include reducing the cost of commercial fishing and charter boat operations in Point Judith Pond, contributing to safer conditions for the commercial fishing fleet in Point Judith Pond, and reducing projected without-project tidal delays for commercial navigation.

USACE planning efforts determined that harbors in the vicinity of Point Judith do not meet the necessary qualifications of an "adequate" fishing port allowing them to serve as an alternative port for Point Judith. Nearby ports, such as Wickford, Rhode Island, suffer from overcrowding and shoaling problems. Other ports cannot handle the potential influx of deep draft vessels due to their lack of adequate berthing space. Another major issue with transfer of portions of the fishing fleet to alternate ports is that none of the nearby ports have the

service capability that is found for commercial boats at Point Judith. The Port of Galilee presently provides the fishermen with the best offloading and fish processing facilities in the area. The closest port that could meet this service is New Bedford, MA, which is 70 miles by highway and 45 miles by sea from Point Judith. The transfer of some of the larger fishing vessels to nearby harbors was considered on the ability of these harbors to provide adequate protection, capacity, and efficiency of operation. It is not likely that commercial operators would permanently transfer their vessel if the other alternative sites do not have the capacity to provide adequate features and facilities.

### 5.3 ALTERNATIVE DREDGING METHODS

Dredging methods that were considered for this project include hydraulic, hopper, and mechanical dredges. A hydraulic dredge pumps sediments via pipeline to an upland, beach, or an intertidal placement area. A hopper dredge uses a draghead and pump to suction sediments through an arm into hoppers within the dredge; when the hopper is full the dredge moves to the placement site where the material is released by opening the hopper doors. A mechanical dredge excavates material with a bucket-type apparatus and deposits it into a scow for transport to the placement site where it is released through an opening in the bottom of the scow.

A hydraulic dredge is generally used for sandy material that will be disposed of in an upland area or on a nearby beach, or for pumping any type of unconsolidated material into a confined (diked) disposal/dewatering area. As stated previously, a hydraulic dredge pumps sediments via pipeline. Since the material to be dredged from the project will be placed in a nearshore area, the hydraulic dredge was not selected as the dredge method of choice for this project.

A hopper dredge uses a suction pump similar to a hydraulic dredge to loosen and remove material from the bottom. The material is then deposited into hoppers aboard the dredge vessel. When the hoppers are full, the suction arm is raised and secured to the vessel, which then travels to the disposal site and either dumps or pumps off the material from the hoppers. The dredge then returns to the dredging site to begin another cycle. Hopper dredges come in various sizes from a few hundred cubic yards bin capacity to several thousand yards capacity. In New England, hopper dredges are most often used to remove sandy materials from harbor entrance channels and deposit the material offshore of beaches to nourish littoral bar systems. In order to fill the hopper bins, the water component of the suctioned slurry is allowed to overflow the bins back into the harbor at the dredging site. Although the material at Point Judith Pond and Harbor of Refuge is predominantly sand, and intended for nearshore placement, this method is not considered the preferred alternative for dredging of the Federal project because the haul distance to the proposed nearshore disposal site would likely render use of a hopper dredge uneconomical. However, for the purpose of this report, it is assumed that a hopper dredge may be used and therefore will be considered as part of the evaluation.

Mechanical bucket dredging involves the use of a barge-mounted crane, hoe or cable-arm with a bucket to dig the material from the harbor bottom. Typical dredging buckets come in various sizes from five cubic yards to fifty or more cubic yards. The material is placed in a scow for transport to the disposal site by tug. For open-water or ocean disposal, a split-hull scow is usually used for ease of disposal and to minimize the discharge plume. Material is

typically discharged at a dump buoy, or by using preset coordinates monitored by the tug. Mechanical dredging is a slow process, as the time to fill a scow with dredge material is dependent upon the size of the bucket and the speed of the crane. Since the material at Point Judith Pond and Harbor of Refuge is predominantly sand, and intended for nearshore disposal, this method is considered the preferred alternative for the dredging of the Federal project.

## 5.4 ALTERNATIVE DISPOSAL SITES

### 5.4.1. Ocean Disposal

The only available ocean disposal site in Rhode Island is the EPA-designated Rhode Island Sound Disposal Site (RISDS). RISDS is located in the Separation Zone between shipping channels in Rhode Island Sound and is approximately 10 miles southeast of Point Judith. This site was not selected as the preferred disposal site for this maintenance dredging project because ocean disposal increases the overall project cost and has the disadvantage of removing sand from the littoral system. In addition, the Corps of Engineers policy is to maximize beneficial use of dredged material where appropriate. Allowing the material to remain in the littoral system through nearshore placement is the best disposal option. Therefore, ocean disposal was not selected.

### 5.4.2 Upland Disposal

In past improvement and maintenance dredging efforts, an upland dewatering site behind Escape Road was used for material placement. The material was hydraulically pumped to the site and dewatered and then trucked offsite to be used for upland fill. This alternative was not considered as this site would not accommodate the amount of material to be dredged and would also remove the sandy material from the littoral system. In addition, a portion of this site has been restored to salt marsh. This site was not selected as the capacity is minimal and using it would remove sand from the littoral system. No other upland disposal sites have been identified for potential use associated with this project.

### 5.4.3 Beach Nourishment

Two nearby beaches, East Matunuck State Beach to the west of the Breachway and Roger Wheeler State Beach to the east of the Breachway, are potentially available to accept sandy dredged material. However, while both beaches are State owned and managed, they both have heavy recreational use in the summer time. Placing sand on the beach would likely encourage the use of the area by the Federally Threatened piping plover, a shore bird. This would create a conflict in beach use, between nesting piping plovers and beach users. The concern that adequate protection for nesting piping plovers could not be afforded due to human use precludes the use of these sites. Therefore, they were not selected as the preferred placement alternative.

The beaches off of the Matunuck shore to the west of the project are also candidates to receive the dredged sand as beach nourishment. However, the longer distance required to pump the material (up to three miles) would necessitate the use of booster pumps at a significant increase in cost. Although this disposal option is viable, the increased cost over the Federal base plan (discussed below) would need to be borne by a local sponsor. The local sponsors



for this project are unable to fund the additional cost associated with this disposal option, and therefore this alternative was dropped from further consideration.

#### 5.4.4 Nearshore Disposal

The closest nearshore disposal option is located off of the Matunuck shoreline (Figure EA-3) and is approximately two miles east of the Point Judith Breachway. The site, located to the west of East Matunuck State Beach, was used in 2009 for the placement of sandy material from maintenance dredging. The site was selected over other nearshore locations because the beach areas directly inshore from the site experience substantial erosion and because the littoral drift of sand is from west to east (meaning that any sand placed in the nearshore area would help down-drift beaches that experience similar erosion problems).

Side-scan survey of the area off of the Matunuck shoreline was conducted in 2005 to determine the best area for disposal of the dredged material from a geological and biological viewpoint. The results of the survey (Boothroyd et al., 2006) show that two large sand sheets, with an area of coarser sand and gravel located between and seaward of the sand sheets, exists just off the shoreline. The dredged material will be placed at the west end of one or both sand sheets in approximately 15 to 18 feet MLLW of water to maximize the beneficial use of dredge material for beach nourishment. This option of nearshore disposal represents the Federal Standard as the least cost, environmentally acceptable alternative, and is being pursued as the selected alternative.

## 6.0 AFFECTED ENVIRONMENT

### 6.1. PHYSICAL ENVIRONMENT

#### 6.1.1 Dredge Site

Point Judith Pond is oriented perpendicular to the coast on a north-south axis. It is approximately four miles long and one mile wide. Freshwater input from the Saugutucket River averages  $33 \times 10^3 \text{ m}^3$  per tidal cycle. The physical oceanographic characteristics of the northern and southern portions of Point Judith are sufficiently different to merit separate discussion.

The southern portion of Point Judith Pond behaves like a well-mixed, open estuary (Licata, 1981). Tidal forces dominate in the lower pond and Harbor of Refuge. Tidal currents through the Breachway are typically one to three knots. These tidal currents carry an estimated 16,000 CY of sand into Point Judith Pond each year, making it necessary to dredge the harbor every 10-15 years (other private and State interests may also dredge the in the vicinity of the Federal channel). The flood tide delta includes the turning basin and the sand bars to the south and north of Little Comfort Island. Accumulation of sediment is most rapid in the turning basin. The ebb and tide currents have created a tidal delta along the Jerusalem shore and the west wall of the Harbor of Refuge in the main access channel. Sedimentation rates in areas other than these tidal deltas are low. Despite strong tidal flushing only five percent of the water in the southern portion of the pond is exchanged on each tide.

The influence of the tide is much weaker at the northern end of the pond. The water level rises and falls in a simple pumping motion, tidal currents are weaker and the area poorly flushed. A two-layered estuarine circulation pattern is established as saline water from the lower pond moves upward along the bottom and freshwater from Saugutucket River flows seaward along the surface.

The upper pond with its poor flushing and sluggish circulation is more prone to eutrophication and more likely to retain pollutants than the lower pond. Similar hydrologic patterns of restricted flushing occur in Bluff Hill Cove making this area susceptible to such impacts as well. The conservative circulation patterns in the northern pond and the more restricted coves are reflected in the increased organic matter in the bottom sediments. North of Harbor Island the organic content of sediments may exceed eight percent, a level that is considered typical of eutrophic waters (Friedrick, 1982).

### 6.1.2 Disposal Site

Sidescan sonar survey results of the Matunuck nearshore area show an area comprised of two sand sheets, with an area of coarser sand and gravel between the two sand sheets, and seaward of the two sand sheets (Boothroyd et al., 2006 ; USACE, 2006). These two sand sheets are located adjacent to Roy Carpenters Beach and Trustom Pond.

## 6.2 SEDIMENT CHARACTERISTICS

### 6.2.1 Dredge Site

Sediments from the areas to be dredged were collected on December 14, 2015. Sediments were collected with a vibracore at 5 stations (Figure 2 – Stations A-E). All samples were analyzed for grain size distribution (Table EA-1). Sediments from stations A and B were classified as fine sands with sandy material comprising between 93-96% sand. Sediments from Stations C, D and E were dominated by sandy material, however they had larger components of silt (9.6%, 20% and 15% respectively) than the other samples. The grain size analysis data is presented in Appendix G of this DPR and EA.

The sediments from stations A and B were excluded from chemical sampling as they were comprised of greater than 90% sand. Sediments from station C, D, and E were composited and analyzed for bulk chemistry. The composite sample was tested for metals (Table EA-2), petroleum hydrocarbons (PAHs) (Table EA-3), and polychlorinated biphenyl congeners (PCBs) (Table EA-4). The results of the chemical analysis indicate that the material contains low levels of contaminants. The chemistry data are also provided in Appendix G.

The composite sediment sample was also subjected to biological testing. A 10-day solid phase bioassay test using both *A. bahia* and *L. plumulosus* was performed. Mean survivability for the composite sample was 89% for *A. bahia* and 94 % for *L. plumulosus*, indicating that sediments do not contain contaminants in concentrations that would adversely affect fish and wildlife.

<b>Table EA-1. Grain Size Distribution of Point Judith Sediments</b>					
<b>Stations</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
% GRAVEL	0.9	1	1	0.2	0
% SAND	96.8	93.9	89.4	79.8	84.4
% SILT & CLAY	2.3	5.1	9.6	20	15.6

<b>Table EA-2. Total Metals and TOC Results for the Point Judith Composite (Comp 1)</b>			
<b>Compound</b>	<b>Units</b>	<b>RISDS</b>	<b>COMP 1</b>
Arsenic, Total	µg/kg	2.8	1.5
Cadmium, Total	µg/kg	ND	0.14
Chromium, Total	µg/kg	9.6	10
Copper, Total	µg/kg	2.3	5.2
Lead, Total	µg/kg	6.2	4.7
Mercury, Total	µg/kg	ND	0.015
Nickel, Total	µg/kg	4.7	6.2
Zinc, Total	µg/kg	17	23
TOC	%	0.26	0.51
ND = non detect			

<b>Table EA-3. PAH Results for the Point Judith Composite (Comp 1)</b>			
<b>Compound</b>	<b>Units</b>	<b>RISDS</b>	<b>COMP 1</b>
Naphthalene	µg/kg	U	U
Acenaphthylene	µg/kg	U	U
Acenaphthene	µg/kg	U	U
Fluorene	µg/kg	U	U
Phenanthrene	µg/kg	20	29
Anthracene	µg/kg	J	J
Fluoranthene	µg/kg	13	54
Pyrene	µg/kg	J	54
Benz(a)anthracene	µg/kg	U	21
Chrysene	µg/kg	U	32
Benzo(b)fluoranthene	µg/kg	U	25
Benzo(k)fluoranthene	µg/kg	U	18
Benzo(a)pyrene	µg/kg	U	16
Indeno(1,2,3-cd)Pyrene	µg/kg	U	11
Dibenz(a,h)anthracene	µg/kg	U	10
Benzo(ghi)perylene	µg/kg	U	12

<b>Table EA-4. PCB Results for the Point Judith Composite (Comp 1)</b>			
<b>Compound</b>	<b>Units</b>	<b>RISDS Reference</b>	<b>COMP 1</b>
PCB 8	ug/kg	0.05 (U)	0.06
PCB 18	ug/kg	0.05 (U)	0.05 (U)
PCB 28	ug/kg	0.05 (U)	0.05 (U)
PCB 44	ug/kg	0.05 (U)	0.016
PCB 49	ug/kg	0.05 (U)	0.016
PCB 52	ug/kg	0.05 (U)	0.031
PCB 66	ug/kg	0.05 (U)	0.05 (U)
PCB 77	ug/kg	0.05 (U)	0.05 (U)
PCB 87	ug/kg	0.05 (U)	0.20
PCB 101	ug/kg	0.09	0.43
PCB 105	ug/kg	0.05 (U)	0.18
PCB 118	ug/kg	0.07	0.36
PCB 126	ug/kg	0.05 (U)	0.05 (U)
PCB 128	ug/kg	0.05 (U)	0.12
PCB 138	ug/kg	0.06	0.65
PCB 153	ug/kg	0.12	0.72 (J8)
PCB 170	ug/kg	0.05 (U)	0.26
PCB 180	ug/kg	0.07	0.81 (J8)
PCB 183	ug/kg	0.05 (U)	0.21
PCB 184	ug/kg	0.05 (U)	0.05 (U)
PCB 187	ug/kg	0.05 (U)	0.56
PCB 195	ug/kg	0.05 (U)	0.07
PCB 206	ug/kg	0.05 (U)	0.10
PCB 209	ug/kg	0.06	0.05 (U)

### 6.2.2 Disposal Site

The surficial sediments at the disposal site are composed of primarily of sand (Boothroyd et al., 2006). Underneath the surficial sand layer, a layer of coarser sand and gravel exists, before transitioning back to predominately sands at depth.

### 6.3 WATER QUALITY

Water quality in Point Judith Pond and the Harbor of Refuge is classified as SA. However, waters at the mouth of the Pond near the marinas and the Upper Pond near the mouth of the Saugatucket River are classified as SB. Class SA waters are designated for shellfish harvesting for direct human consumption; primary and secondary contact recreational activities; and fish and wildlife habitat. They shall be suitable for aquaculture uses, navigation and industrial cooling. These waters shall have good aesthetic value. Class SB waters are designated for primary and secondary contact recreational activities; shellfish

harvesting for controlled relay and depuration; and fish and wildlife habitat. They shall be suitable for aquaculture uses, navigation and industrial cooling. These waters shall have good aesthetic value (RIDEM, 2006).

## 6.4 AQUATIC RESOURCES

### 6.4.1 Dredge Site

#### General

Extensive salt marshes, tidal flats, open water areas, and eelgrass beds can be found within the Point Judith Pond. The Pond and Harbor also support important commercial and recreational interests such as a commercial fishing fleet, a recreational boating fleet, and ferry service to Block Island. A large number of piers, boat berths, boat landings, and marinas are mainly concentrated at the mouth of the Pond. A large number of private residences and commercial buildings are distributed around the Pond. There are also several indoor lobster pounds with water intakes from the Pond. The Galilee Bird Sanctuary is located in the southeast portion of the Pond.

#### Eelgrass

Eelgrass (*Zostera marina*) beds are located to the west and southwest of Little Comfort Island, to the west of Great Island, and within Snug Harbor (RIGIS, 2017) (Figure EA-4). No eelgrass beds have ever been documented in the navigation channel (USACE 2006; USACE 1994). Many species of fish and wildlife depend on eelgrass. Eelgrass beds provide protection for bay scallops, quahogs, blue crabs, and lobster. Tautog and other fish lay their eggs on the surface of eelgrass leaves, and young starfish, snails, mussels, and other organisms attach themselves to the plant.

#### Benthos and Shellfish

Benthic samples were collected on September 24, 2003 from the navigation channel in support of the maintenance dredging of the Federal Navigation Project (FNP) and were summarized by Pratt (2004). Two stations from that effort were located immediately adjacent to the proposed improvement effort. The benthos in these areas were dominated by Capitellid polychaetes (*Capitella* spp.) and amphipods (*Corophium* spp. and *Microdeutopus gryllotalpa*). No shellfish species were observed in these areas. As conditions in the pond have not dramatically changed since sampling, the benthic results from the 2003 sampling effort were considered valid.

The conclusions of the FNP benthic sampling effort were that the most abundant and diverse taxonomic groups in the area were polychaetes and amphipods. Additionally, the effort concluded that there were few commercial shellfish resources inhabiting the navigation channel, as only two juvenile hard clams *Mercenaria mercenaria* and three surf clams *Spisula solidissima*, were found in the navigation channel samples.

There are three types of commercially harvested species of shellfish in the Point Judith Pond (a) the soft shell clam (*Mya arenaria*), the bay scallop (*Argopectin irradians*) and the quahog (*Mercenaria mercenaria*) (Narragansett, 2016). The largest soft shell clam bed is located in the southeast portion of the pond in Bluff Hill Cove, while another smaller bed is located in the Crown Point area in the northern part of the pond, and other smaller beds are scattered near the beaches at the fringe of the intertidal area. A significant *Mercenaria mercenaria* bed, that is commercially harvested, is located between Crown Point and the Narrows.

Other commercial shellfish species that occur in low numbers in the pond are the oysters *Crassostrea virginica* and the mussels *Mytilus edulis*. According to past personal communications from Rhode Island's shellfish biologist (Mr. Art Ganz, 2004), some lobsters *Homarus americanus* may migrate into Point Judith pond, however there is not an active fishery for them inside the pond. Lobsters may be abundant in the breakwaters and in the rocky portions of the nearshore zone.

### Fish

Point Judith Pond supports a typical productive nearshore fish assemblage (Narragansett, 2016). Estuarine forage fish such as silversides *Menidia menidia* and mummichog *Fundulus heteroclitus* are abundant. In warmer months of the year, the tautog *Tautoga onitis*, striped bass *Morone saxatilis*, bluefish *Pomatomus saltatrix*, utilize the pond for forage and cover.

Two species of anadromous fish, alewives *Alosa pseudoharengus* and blueback herring *Alosa aestivalis*, are known to transit through Point Judith Pond to spawn in the Saugatucket River. These species generally begin migration into the pond at the end of February/beginning of March, with peak migration in April, and migration is generally completed by the end of May. Migration of these species from upstream areas to sea generally begins in August, peaks during the months of September/October, and is complete near the end of November.

Winter flounder *Pseudopleuronectes americanus* is the most abundant demersal fish in Rhode Island coastal waters and has historically been an important fishery in Narragansett Bay and several salt ponds along the southwestern shore (Crawford, 1985). In Point Judith Pond, spawning occurs primarily in the upper pond on a gravel bar known as Rocky Island near the mouth of the Saugatucket River, and to a lesser extent near Gardner Island further south. Despite extensive sampling (Crawford, 1985), no evidence of spawning was found in other areas of the pond potentially suitable as spawning habitat. Routine plankton tows contained a few winter flounder larvae at the end of February in the Narrows, however none were found in the rest of the pond (Crawford, 1985). March and April plankton tows showed the larvae moving into the southern portion of the pond. The sampling results suggest that winter flounder spawn well within the upper portion of an estuary so that the larvae are less likely to be immediately flushed out to sea (Crawford, 1985). No flounder spawning areas were found in the navigation channel.

#### 6.4.2. Nearshore Disposal Site General

The offshore waters of Block Island Sound are home to a diversity of fish species including cod, cunner, flounder, skates, tautog and herring. Marine mammals are represented in the Block Island ecosystem by harbor seal communities on Point Judith, Newton Rock and possibly other remote rocky areas. Lobsters, surf clams, starfish, and crabs dominate the marine benthic community. Mussels, sea urchins and sea cucumbers also are resident benthic macrofauna. These species are allied with an abundant and diverse benthic microfauna population in the offshore environment (NOAA, et. al., 1999).

##### Eelgrass

There are no eelgrass beds in the vicinity of the nearshore disposal site. Boothroyd et al, (2006) demonstrated that the site is a subtidal sand bottom that does not support vegetation.

##### Benthos and Shellfish

The benthic community of the nearshore site was characterized in 2006. Van Veen grab samples were collected on March 22, 2006 within the boundary of the site. Visual inspection of the samples showed that the sediment in the area was homogenous fine sand.

A total of 23 taxa was identified in six samples from the site. The average number of taxa and average number of individuals in the grab samples was 11.2 and 167. Polychaetes and amphipods were the most abundant and diverse major taxa in the samples. Nine species of polychaete were recovered. These included species strongly associated with sandy beach habitats (*Magelona rosea*, *Paraonis fulgens*, and *Scololepsis squamata*) and species found on deeper sand habitats (*Nephtys picta* and *Spiophanes bombyx*). Seven species of amphipods were recovered. Most of the individuals were members of the family Haustoridae (*Acanthohaustorius millsi*, *Bathyporeia quoddyensis*, *Parahaustorius longimanus*, and *Protohaustorius deichmannae*). Haustorids are adapted for free burrowing in unconsolidated sandy sediments. They feed on organic particles suspended in interstitial water. *Synchelidium americanum* has similar habits. *Psammonyx nobilis*, a member of the family Lysianassidae, is a relatively large species that is less specialized for burrowing and is an opportunistic scavenger and predator.

The rare species (i. e, few individuals) found from other major groups include the bivalve molluscs *Tellina agilis* and *Mysella planulata*, which are generally found in silty sediment in near-by coastal ponds. No surf clams (*Spisula solidissima*) or hard clams (*Mercenaria mercenaria*) were found at this site.

##### Fish

The fish species at the nearshore site are anticipated to be similar to those described above for Point Judith Pond.

## 6.5 WILDLIFE RESOURCES

The salt pond and offshore habitats of the Block Island Sound coastal ecosystem provide valuable habitat for a host of resident and migratory bird species. During the winter months, marine waters support seabird and waterfowl populations including loons and grebes, sea ducks (e.g., eiders and scoters), and diving ducks (e.g., goldeneye, bufflehead and scaup). Winter diving ducks and dabbling ducks such as scaup, American black duck and mallard also inhabit the area's salt ponds. Over 200 species of migratory birds use Block Island Sound resources during the spring and autumn months (NOAA, et. al., 1999).

Point Judith Pond supports a large diversity of wildlife. A variety of bird species can be found in the vicinity of Point Judith including gulls, wading birds, waterfowl (Canada geese, sea ducks, puddle ducks, diving ducks), raptors (osprey), and diving birds (common loon). Otters, muskrat and mink are also present in the area.

## 6.6 ESSENTIAL FISH HABITAT

The 1996 amendments to the Magnuson-Stevens Fishery Conservation Management Act strengthen the ability of the National Marine Fisheries Service and the New England Fishery Management Council to protect and conserve the habitat of marine, estuarine, and anadromous finfish, mollusks, and crustaceans. This habitat is termed "essential fish habitat", and is broadly defined to include "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." Managed species listed for the 10' x 10' square of latitude and longitude which includes Point Judith Pond and the Harbor of Refugee, and the nearshore disposal site are: Atlantic cod *Gadus morhua* (adult), haddock *Melanogrammus aeglefinus* (larvae), whiting *Merluccius bilinearis* (eggs, larvae, juveniles), red hake *Urophycis chuss* (eggs, larvae, juveniles, adults), winter flounder *Pleuronectes americanus* (eggs, larvae, juveniles, adults), windowpane flounder *Scophthalmus aquosus* (eggs, larvae, juveniles, adults), American plaice *Hippoglossoides platessoides* (larvae, juveniles, adults), ocean pout *Macrozoarces americanus* (eggs, larvae, juveniles, adults), Atlantic halibut *Hippoglossus* (eggs, larvae, juveniles, adults), Atlantic sea herring *Clupea harengus* (larvae, juveniles, adults), monkfish *Lophius americanus* (eggs, larvae), bluefish *Pomatomus saltatrix* (juveniles, adults), long finned squid *Loligo pealei* (juveniles, adults), Atlantic butterfish *Peprilus triacanthus* (juveniles), Atlantic mackerel *Scomber scombrus* (eggs, larvae, juveniles, adults), summer flounder *Paralichthys dentatus* (larvae, juveniles, adults), scup *Stenotomus chrysops* (eggs, larvae, juveniles, adults), black sea bass *Centropristus striata* (juveniles, adults), surf clam *Spisula solidissima* (juveniles, adults), spiny dogfish *Squalus acanthias* (juveniles, adults), king mackerel *Scomberomorus cavalla* (eggs, larvae, juveniles, adults), Spanish mackerel *Scomberomorus maculatus* (eggs, larvae, juveniles, adults), cobia *Rachycentron canadum* (eggs, larvae, juveniles, adults), sand tiger shark *Odontaspis taurus* (larvae), blue shark *Prionace glauca* (larvae, adults), dusky shark *Charcharinus obscurus* (juveniles), shortfin mako shark *Isurus oxyrhyncus* (juveniles), sandbar shark *Charcharinus plumbeus* (juveniles, adults), and bluefin tuna *Thunnus thynnus* (adults).

The managed species listed above which are found in estuarine waters (>25 ppt) with shallow depths (Point Judith Pond average depth of six feet) (i.e., the area proposed for dredging) include red hake (eggs, larvae, juveniles, adults), winter flounder (eggs, larvae, juveniles,



adults, spawning adults), windowpane flounder (eggs, larvae, juveniles, adults, spawning adults), ocean pout (eggs, larvae, juveniles, adults), long finned squid (juveniles, adults), Atlantic mackerel (eggs, juveniles, adults), summer flounder (juveniles, adults), scup (eggs, larvae, juveniles, adults), black sea bass (juveniles, adults), surf clam (juveniles, adults), king mackerel (eggs, larvae, juveniles, adults), Spanish mackerel (eggs, larvae, juveniles, adults), cobia (eggs, larvae, juveniles, adults), sandbar shark (adult), and bluefish (juveniles, adults).

The species listed above for Point Judith Harbor would be expected in the nearshore area also, with the exceptions of winter flounder eggs and larvae and juvenile summer flounder, as the nearshore placement area is adjacent to a high energy sand beach.

## 6.7 THREATENED AND ENDANGERED SPECIES

No threatened or endangered species under the jurisdiction of the National Marine Fisheries Service are known to permanently inhabit the project area. However, occasional transient species such as sea turtles, whales, and seals have the potential to occur in or near the project area. Additionally, Atlantic sturgeon originating from any of the five listed Distinct Population Segments (DPSs) may be seasonally present off of Point Judith in the Atlantic Ocean. The Federally-listed threatened piping plover, under the jurisdiction of the U.S. Fish and Wildlife Service, is known to occur on beaches in the vicinity of the proposed project.

## 6.8 HISTORIC AND ARCHEOLOGICAL RESOURCES

This narrative is composed of material from *Historic and Architectural Resources of Narragansett, Rhode Island* (1991). Human presence in Rhode Island stretches back about 10 thousand years prior to the arrival of Roger Williams in 1636. Following a typical seasonal pattern, Native peoples lived along the coast harvesting fish and shellfish during the spring and summer, journeying inland during the winter months to favored hunting grounds. Later with the development of ceramic vessels and agriculture, the need for seasonal movement was replaced by the establishment of permanent camps along the coastal plain and fertile floodplain terraces along rivers.

Europeans in the 1500's encountered groups of Natives settled around semi-permanent villages led by chiefs called sachems. The Narragansetts were the predominant group in what is today's Rhode Island west of Narragansett Bay. In the 17<sup>th</sup> Century, the Narragansetts were the largest and most powerful tribe in New England with a population of 30,000 to 35,000. Roger Williams established a trading post near today's Wickford in 1637 that became known as Cocumscussoc.

The town of Narragansett was originally part of "Narragansett Country" that included Warwick, West Warwick, and Coventry. The Pettaquamscutt Purchase of 1658 transferred parts of North Kingstown, South Kingstown, Exeter, and Point Judith Neck. The peninsula between the Pettaquamscutt River and Narragansett was later transferred and known as Nancook or Boston Neck. In 1674, the colony of Rhode Island incorporated a portion of the area as "King's Towne" which included all the mainland settlements west of Narragansett Bay. Kingstown was divided into the townships of South Kingstown, including present-day Narragansett, and North Kingstown. The area of today's Narragansett remained a part of South Kingstown until 1901 when the town of Narragansett was chartered.

In the 18<sup>th</sup> Century, Point Judith Neck, the southernmost portion of Narragansett from the Little Neck area to the ocean, was divided into several holdings. These holdings were subdivided into small farms with houses spread out along Point Judith Road in the 19<sup>th</sup> Century. The road began as a crude path down the center of the Neck in the late 18<sup>th</sup> Century. By the mid-19<sup>th</sup> Century, Point Judith Neck had become home to a small community of fishermen, farmers, and laborers. Road improvements during this period included the construction of Ocean Road along the ocean shore in 1882; the extension of Point Judith Road; and the laying out of several roads between Point Judith and Ocean Roads. The first lighthouse at Point Judith, one of the most dangerous and exposed spots on the East Coast, was established in 1806. The present lighthouse tower is the third on the site and dates from 1857. The Point Judith Lighthouse is listed on the State and National Registers of Historic Places.

By the 20<sup>th</sup> Century, Point Judith Neck became a summer resort with its location closer to Narragansett Pier and the ocean and more easily accessible by automobile and harbor improvements at Galilee. Ocean Road was modernized in 1905. Point Judith Road was paved in 1928 and later, widened in the 1930s. Beaches were established at Scarborough and Sand Hill Cove; a Coast Guard boathouse was constructed on the breachway at Galilee, followed by a Coast Guard station in 1935 at Point Judith. Today the Point Judith area has been transformed into a major tourist area with extensive development and seasonal occupation including the two villages of Galilee and Jerusalem.

Construction of the Point Judith Harbor of Refuge was initiated in 1890 when the project was authorized by Congress, and portions of the east and west jetties of the breakwater were completed before the end of the 19<sup>th</sup> Century. The project, however, was not completed until 1914 when the last of the breakwater's three sections, the central one, was completed. A permanent breachway to Point Judith Pond was created in 1910 when a new breachway, east of the earlier one, was excavated between Galilee and Jerusalem. The site of the old breachway follows the town line between Narragansett and South Kingstown.

A review of the Northern Shipwrecks Database indicates that approximately 12 shipwrecks are recorded for the Point Judith area, although none are located in the project area. According to Marlene and Don Snyder (*Rhode Island Adventure Diving II, 2003*), the construction barge *Samson* took on water and rolled over on its starboard side inside the east middle breakwater of the Point Judith Harbor of Refuge on October 5, 1991. The *Samson*, originally a 300-foot long barge used for transporting railroad cars, was converted into a construction barge by being cut in half. The vessel was on its way to the east breakwater to raise a Coast Guard signal light that had been toppled by Hurricane Bob. Currently the *Samson* rests in 30-35 feet of water and is located about 300-400 yards southwest from the tip of the middle breakwater's east opening, next to the wall. The wreck is designated on NOAA nautical chart number 13219.

Two wrecks are noted on NOAA nautical chart 13215 south of Browning Beach within Nebraska Shoal in deep water outside of the area of nearshore beach nourishment.

## 6.9 AIR QUALITY AND NOISE

### Air

Ambient air quality is protected by Federal and state regulations. The U.S. EPA has developed National Ambient Air Quality Standards (NAAQS) for certain air pollutants and air quality standards for each state cannot be less stringent than the NAAQS. The NAAQS determined by the EPA set the concentration limits that determine the attainment status for each criteria pollutant. EPA has identified seven specific pollutants (called criteria pollutants) that are of concern with respect to the health and welfare of the general public. The criteria pollutants are carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter 10 micrometers or less in aerodynamic diameter (PM<sub>10</sub>), particulate matter 2.5 micrometers or less in aerodynamic diameter (PM<sub>2.5</sub>), and lead (Pb). The entirety of Rhode Island is currently designated as attainment for the air pollutants listed above, with the exception of ozone. The entire state of Rhode Island is in nonattainment status for ozone.

### Noise

Point Judith Harbor is an active fishing port. The noise environment in the project area consists routinely of noise from motoring fishing and recreational vessels, noise from construction, maintenance, and loading/unloading efforts on the docks and piers immediately adjacent to the area, and typical noise associated with the marine environment (i.e., wildlife, water movement, and air movement).

## 6.10 RECREATION RESOURCES

Point Judith Pond, as well as the nearshore placement site, and their associated beaches, sand flats, marshes, open water areas are valuable ecological resources that are utilized by the public as recreational shellfishing and fishing areas, recreational boating areas (including boat launching), hiking areas, surfing areas, and public swimming areas. The aesthetic scenery provided by the areas not only benefit the residents of the coastal communities, but attracts tourists from around the world.

## 7.0 ENVIRONMENTAL CONSEQUENCES

### 7.1 PHYSICAL ENVIRONMENT

#### 7.1.1. Dredge Site

The area to be dredged is a shallow subtidal environment that will remain a shallow subtidal environment after dredging. The deepening of the subtidal area is not anticipated to negatively impact the tidal environment, the water currents or circulation patterns, or the sediment transport in the project area.

#### 7.1.2. Nearshore Placement Site

The sandy dredged material will be released at the nearshore placement site from a scow or barge. The water depths (approximately 15 to 18 feet MLLW) and the location of the nearshore site were chosen to allow the sandy material to move towards shore to nourish the beach adjacent to the site, with the material ultimately moving down the beach from west to east as part of the overall littoral movement (Boothroyd et al, 2006; USACE, 2006). Therefore, no significant long-term effects to the physical environment at the nearshore placement site are expected.

### 7.2 SEDIMENT CHARACTERISTICS

#### 7.2.1 Dredge Site

The sediment characteristics at the dredging site are anticipated to remain similar to the existing conditions (i.e., predominately clean sandy material) after the dredging is performed.

#### 7.1.2. Nearshore Placement Site

Sediment quality and composition at the nearshore placement site is not anticipated to change significantly. The dredge material from the Point Judith Harbor improvement area (predominately sands) is similar to that found at the disposal site. No significant changes or adverse effects to sediment quality are anticipated. Federal and State resource agencies reviewed the sediment sampling and analysis plan and the Rhode Island CRMC contracted for the sampling and testing as part of its in-kind contributions towards the feasibility study.

A suitability determination, supported by the sampling and testing, has reached the conclusion that the dredged material is suitable for nearshore disposal. Sediments from the areas to be dredged are similar in grain size and composition to those at the nearshore site (sand), and thus are well suited for disposal at that location. This determination will be coordinated with Federal and State resource agencies during review of the draft report.

### 7.3. WATER QUALITY

No significant adverse water quality impacts are anticipated from the dredging and disposal operations. The majority of the material to be dredged is sand. Sandy material is generally not associated with high levels of organic carbon or contaminants, and dredging of sandy material is not likely to result in the release of nutrients or decreases in dissolved oxygen. Sand would settle quickly, and any fines would be rapidly diluted at both the dredging and disposal sites.

No significant release of chemical contaminants would occur and therefore no significant impacts to water quality are anticipated.

#### 7.4. AQUATIC RESOURCES

##### 7.4.1 Dredge Site

###### Eelgrass

No submerged aquatic vegetation (SAV) is present in the project footprint and effects from suspended sediments on adjacent SAV areas are anticipated to be minimal as the material to be dredged is predominately sand which, when suspended in the water column, settles rapidly. There are SAV beds within approximately 150 feet of the top of the projected slope of the new channel. However, no significant impacts to the SAV are anticipated as a result of the proposed project.

###### Benthos/Shellfish

Dredging operations should have no more than minimal adverse impact on benthic resources in Point Judith Harbor. Most sedentary organisms associated with the bottom sediments in the direct footprint of the dredged areas would be destroyed. However, most motile organisms, such as crabs and finfish, would most likely be able to avoid the dredge. Recolonization of dredged areas is expected and the post-dredging community should closely resemble the existing community. This conclusion is based on a wide range of scientific literature and accepted ecological principals regarding the succession of marine benthic communities. For example, Van Dalssen et. al. (2000) concluded that in sand mining operations that resulted in only minor changes in sediment types, benthic recovery (defined as the recovery of the diversity, density, and biomass community metrics to levels found at the impact site before mining operations) was accomplished within a short time frame of 2 to 4 years. Conversely, operations that resulted in significant changes to sediment types took longer for the community metrics to resemble pre-mining metrics. Given that the activities proposed for this navigation improvement project are not anticipated to significantly alter the sediment type, this evaluation concludes that benthic recovery should occur within a relatively short timeframe. This evaluation of benthic recovery is supported by information presented in Connor and Simon (1979) (benthic recovery and dredging for oyster shell), Pagliai et. al. (1985) (benthic recovery and improvement dredging), Davoult and Richard (1986) (benthic recovery and sand mining), Newell et. al. (2004) (benthic recovery and sand mining), and Byrnes et al. (2004) (benthic recovery and sand mining). Although the reported timeframes for benthic recovery differ temporally amongst each individual project, the overarching theme that recovery does occur is constant. Therefore, this impact should be considered a non-permanent short-term impact.

While lobsters and shellfish resources inhabiting the direct footprint of the area to be dredged may be destroyed, lobster resources inhabiting the channel jetties and rocky nearshore habitats of Point Judith Pond and shellfish in the pond (as noted in Section 6.4.1) should not be significantly impacted by the project. As the material being dredged is mainly sand, significant levels of suspended sediments (and the effects of suspended sediments on lobster and shellfish resources) outside of the project footprint are not anticipated. Additionally, no significant shellfish beds are located in the area proposed to be dredged.

### Fish

Since the material to be dredged is predominantly sand, with a low silt content, only a small area in the vicinity of the dredging site is likely to be impacted by elevated concentrations of suspended sediments. Most fish are quite tolerant of short-term exposure to elevated suspended sediment levels and those in the project area are unlikely to be significantly impacted by this project (Stern and Stickle 1978, Barr 1987). Most fish are relatively motile and can avoid areas of disturbance, however some demersal fish, fish eggs, and non-motile larvae have the potential to be entrained in the dredge. While some fish resources may be removed by entrainment, the impact to fisheries resources in the system will be minor. Therefore, only temporary short-term impacts of suspended sediments in the vicinity of the dredge and the entrainment of a minor amount of fish resources are anticipated.

#### 7.4.2 Nearshore Disposal Site

### Eelgrass

No eelgrass is located in or adjacent to the nearshore site. Therefore, there will be no impacts to eelgrass resources.

### Benthos/Shellfish

Placing sandy material at the proposed nearshore disposal site should not have significant long-term effects on the benthic communities at the site. The benthic communities in the area (which, as noted in section 6.4.2, are typical near-shore sandy subtidal communities) will realize some mortality in the direct footprint of the disposal through burial. However, as stated above in the action area discussion, benthic communities are anticipated to recover over time. The deposition of the sandy material should not create significant suspended sediment impacts to adjacent areas as the material is expected to settle rapidly. No significant shellfish or lobster resources are located in the nearshore site, therefore, no more than minimal impacts to these resources in the project area are anticipated.

### Fish

Direct impacts to fish resources at the nearshore placement site are expected to be minimal. Any fish in the vicinity of the placement site would be either expected to avoid the areas of disturbance, be smothered by the material, or be exposed to elevated turbidity for brief periods. Since the material to be placed at the site is sand, elevated suspended sediment levels should be short-term and localized to the placement site area. In addition, burial of benthic organisms will occur at the nearshore disposal site and will temporarily eliminate a forage area for fish. However, recolonization by benthic species from adjacent areas and new recruitment is expected to occur in a relatively short period of time. Therefore, no adverse long term impacts to the fish resources at the placement site are anticipated.

## 7.5 WILDLIFE RESOURCES

The project should have no significant adverse impact on waterfowl or other wildlife occurring in the vicinity of Point Judith Pond and the nearshore placement site. Some wildlife (mainly avifauna) may be temporarily displaced during dredging and disposal activities, however should be able to return to those areas once construction activities have ended.

## 7.6 ESSENTIAL FISH HABITAT

The proposed dredging and nearshore placement of the sediment for sacrificial beach nourishment will occur during the period of October 1 through January 31. This window was selected to minimize the presence of aquatic resources in the project area and to take advantage of the lower levels of natural, environmental stresses placed on species that may be resident in the work areas. For example, winter flounder spawning, egg maturation and larval development will not be affected as the project will be completed outside of the peak time of these activities. Overall, there is a negligible potential for unacceptable adverse effects, including cumulative effects, of the proposed action on Essential Fish Habitat for any of the managed species in the area. The dredged material is predominantly sand and has been found to be suitable for disposal at the nearshore disposal site. Minor but temporary impacts from the nearshore placement are expected. Recolonization of the impacted areas by benthic organisms removed by dredging or buried by disposal will occur as reproduction and dispersal of colonists occurs. Schooling life stages of finfish and migratory movements by motile invertebrates are not expected to be affected by the proposed project. Spawning, nursery and forage habitat for the managed species listed in Section 6.6 are not expected to be adversely affected by the proposed project.

## 7.7 THREATENED AND ENDANGERED SPECIES

The Corps has made the preliminary determination that the proposed project is not likely to adversely impact any state or Federally listed threatened or endangered species. Several listed marine mammals may occur as transient species in the general area, but are unlikely to occur within the shallow depths of the dredging or placement areas. Coordination pursuant to the Endangered Species Act with NMFS and USFWS is ongoing.

## 7.8. HISTORIC AND ARCHAEOLOGICAL RESOURCES

The current navigation improvement calls for widening the existing 15-foot deep West Bulkhead channel by 50 feet for a distance of approximately 700 feet and extending this same channel approximately 1,200 feet into the North Basin area at a width of 150 feet and a depth of 11 feet. Sediment sampling, including vibracores, indicated primarily sand within areas to be dredged.

Additionally, the dredged material will be placed at a previously utilized nearshore site off Matunuck below mean high water for beach nourishment purposes. Side scan sonar survey of the area in 2005 did not identify any areas of possible submerged historic properties (Boothroyd et al. 2006). Any cultural resources in this area would have likely been subject to erosional disturbances in the high-energy environment. Two wrecks depicted on the NOAA nautical chart are well to the south of the area proposed for beach nourishment. Dredged material will be placed relatively close to the beach areas to increase the potential for indirect nourishment to the beach areas.

Therefore, the proposed navigation improvement dredging of the Point Judith Harbor of Refuge, with nearshore disposal for beach nourishment at Matunuck, will have no effect upon any structure or site of historic, archaeological, or architectural significance as defined by the National Historic Preservation Act of 1966, as amended, and implementing regulations 36 CFR 800.

The RI State Historic Preservation Officer (SHPO) has previously reviewed and commented on the proposed navigation improvement study, by letter dated August 13, 1986, and concurred that the project will have no effect upon significant cultural resources. The Rhode Island State Historic Preservation Officer is expected to concur with this determination once again.

## 7.9 AIR QUALITY AND NOISE

### Air

The improvement dredging of Point Judith Harbor is subject to Clean Air Act requirements. An air quality conformity analysis (Appendix I) was completed to demonstrate compliance. The conformity analysis details projected emissions that would result from the construction of the proposed project. These data are then compared to Federal and State air quality standards to determine impacts to air quality. It was determined that the direct and indirect ozone emissions, for which the entire State of Rhode Island is in nonattainment status, from the proposed project (0.61 tons/year for NO<sup>x</sup> and 0.09 tons/year for VOC) were considerably less than the conformity threshold value of 100 tons per year.

The project would have no long-term impacts on air quality. During construction, equipment operating on the site would emit pollutants including nitrogen oxides that can lead to the formation of ozone. In order to minimize air quality effects during construction, construction activities would comply with applicable provisions of the Rhode Island Air Quality Control Regulations pertaining to dust, odors, construction, noise, and motor vehicle emissions. This project therefore conforms to the Federal requirements for activities under the Clean Air Act within the Rhode Island State Implementation Plan.

### Noise

The noise associated with active dredging (i.e., noise from crane motors, electrical generators, tug boats, and workboats) will increase the volume of noise in the project area. However, noise levels are not anticipated to be significantly greater than the ambient noise throughout the harbor (e.g., fishing vessels, loading cranes, and forklifts). Additionally, the noise associated with the proposed project will be of limited duration and will only occur in the immediate vicinity of the dredge plant. Increased noise from the placement of dredged material at the nearshore site will be limited to that associated with tug boat maneuvering and will also be short in duration. Therefore, no more than minimal short-term effects to the noise environment are anticipated as a result of the proposed project.

## 7.10 RECREATIONAL RESOURCES

Minor impacts to recreation in the area may occur as a result of dredging activities. Recreational and commercial boating traffic may experience delays during periods of low tide as navigable water may be limited in the areas surrounding the dredge. Every effort will be made to accommodate vessel traffic in the harbor. Dredging and construction activities will occur during the late fall and winter months when vessel traffic is at a minimum.



The placement site was used previously with no significant impacts to recreation. Placement activities will occur nearshore and not directly on the beach and construction will occur in the fall and winter months. Therefore no impacts to the recreation use of the site are anticipated.

## **8.0. ENVIRONMENTAL JUSTICE & PROTECTION OF CHILDREN**

Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” require federal agencies to identify and address disproportionately high and adverse human health or environmental effects of its program, policies, and activities on minority and low-income populations in the U.S., including Native Americans. The Proposed Action will not have any disproportionately high or adverse impacts on minority or low-income populations, or any adverse short or long-term environmental justice impacts because the project is not located near any areas with these populations. The dredge area is in a heavily used harbor area with no adjacent residents and the placement area is adjacent to state owned beachfront property with no residences.

Executive Order 13045, “Protection of Children from Environmental Health Risks and Safety Risks,” requires federal agencies to identify and assess environmental health risks and safety risks that may disproportionately affect children. The Proposed Action will not pose any significant or adverse short or long-term health and safety risks to children because access to the project area during construction will be limited as it will be occurring in the harbor and nearshore environment and therefore should not pose a risk to children.

## **9.0 CUMULATIVE EFFECTS**

Cumulative impacts are those resulting from the incremental impact of the proposed action when added to other past, present, and reasonably foreseeable future actions. Past and current activities in Point Judith Pond include the dredging of the project and navigation of the channel and anchorages. Past and current activities at the disposal site include recreational activities such as swimming and fishing. The proposed improvements and disposal activities may result in the expansion of either the commercial or recreational fleets within the pond. Reasonably foreseeable future actions include the continuation of periodic maintenance dredging and navigation activities (i.e., recreational boating and commercial fishing fleet usage). Impacts from future maintenance dredging are anticipated to be similar to those documented in this Environmental Assessment.

Regionally, the improvement dredging of the project will assist the commercial fishery that exists in coastal Rhode Island. The dredging will provide shelter and safe navigation for existing commercial fishing vessels. This is essential for the continuance of the commercial fishing industry in Rhode Island. The cumulative impacts on marine resources from dredging will be short-term and minimal and should not contribute to any loss of regional resources.

Based on the impacts noted above, no significant cumulative impacts are anticipated as a result of the proposed project.

## **10.0 MEASURES TAKEN TO MINIMIZE ENVIRONMENTAL IMPACTS**

The following actions will be instituted to minimize potential adverse impacts from the proposed project.

1. The dredging contractor will be required to fully accommodate vessel traffic during dredging operations.
2. Dredging will occur from October 1 through January 31 to avoid potential impacts to spawning shellfish and spawning and early life stages of winter flounder.
3. Material will be placed in nearshore waters off of the Matunuck shoreline between the 15- 18' MLLW contour.

## **11.0 COORDINATION AND PUBLIC INVOLVEMENT**

Coordination has been conducted with the appropriate state and Federal agencies. A public notice was released concurrent with publication of the Draft Detailed Project Report and Draft Environmental Assessment for public and agency review. The public notice includes contact information for obtaining copies of the Environmental Assessment for the project. Copies of the public notices and coordination letters received are contained in Appendix A of the Main Report. Coordination has occurred with the following agencies and officials:

US Environmental Protection Agency –Region I  
US Fish and Wildlife Service  
NOAA – Fisheries (Habitat Conservation Division and Protected Resources Division)  
Rhode Island Department of Environmental Management  
Rhode Island Coastal Resources Management Council  
Rhode Island State Historic Preservation Commission  
Narragansett Tribe

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## 13.0 COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS

### **Federal Statutes**

1. *Clean Water Act of 1977 (Federal Water Pollution Control Act Amendments of 1972) 33 U.S.C. 1251 et seq.*

Compliance: A Section 404(b)(1) Evaluation and Compliance Review have been incorporated into this report. A State Water Quality Certification, pursuant to Section 401 of the Clean Water Act, will be requested from the Rhode Island Department of Environmental Management.

2. *Marine Protection, Research, and Sanctuaries Act of 1972, as amended, 33 U.S.C. 1401 et seq.*

Compliance: Not applicable. This project is being evaluated under Section 404 (b) (1) of the Clean Water Act, not 103 of the MPRSA, as disposal is in the nearshore (33 CFR Part 338).

3. *National Historic Preservation Act of 1966, as amended, 16 U.S.C. 470 et seq.*

Compliance: Coordination with the State Historic Preservation Office to determine whether historic or archaeological resources would be affected by the proposed project signifies compliance with this Act.

4. *Preservation of Historic and Archaeological Data Act of 1974, as amended, 16 U.S.C. 469 et seq. This amends the Reservoir Salvage Act of 1960 (16 U.S.C. 469).*

Compliance: Not applicable. Project does not require mitigation of historic or archaeological resources.

5. *Endangered Species Act of 1973, as amended, 16 U.S.C. 1531 et seq.*

Compliance: Coordination with the U.S. Fish and Wildlife Service (FWS) and National Marine Fisheries Service (NMFS) is on-going. The Corps has made the preliminary determination that impacts associated with the proposed project are not likely to adversely affect threatened or endangered species under the jurisdiction of the FWS or NMFS.

6. *The Estuary Protection Act (16 U.S.C. 1221)*

Compliance: Not applicable, as this report is not being submitted to Congress.

7. *Fish and Wildlife Coordination Act, as amended, 16 U.S.C. 661 et seq.*

Compliance: Coordination with the FWS, NMFS, and the Rhode Island Department of Environmental Management signifies compliance with the Fish and Wildlife Coordination Act.

8. *National Environmental Policy Act of 1969, as amended, 42 U.S.C. 4321 et seq.*

Compliance: Preparation of this report signifies partial compliance with NEPA. Full compliance shall be noted at the time the Finding of No Significant Impact is issued.

9. *Wild and Scenic Rivers Act, as amended, 16 U.S.C. 1271 et seq.*

Compliance: Not applicable.

10. *Coastal Zone Management Act of 1972, as amended, 16 U.S.C. 1431 et seq.*

Compliance: A CZM consistency determination will be provided to the Rhode Island Coastal Resource Management Council for review and concurrence that the proposed project is consistent, to the maximum extent practicable, with the approved State CZM program.

11. *Clean Air Act, as amended U.S.C. 7401 et seq.*

Compliance: Public notice of the availability of this report to the Regional Administrator of the Environmental Protection Agency for review pursuant to Sections 176c and 309 of the Clean Air Act signifies compliance.

12. *Federal Water Project Recreation Act, as amended, 16 U.S.C. 4601-12 et seq.*

Compliance: Not applicable.

13. *Land and Water Conservation Fund Act of 1965, as amended, 16 U.S.C. 4601-1.*

Compliance: Public notice of the availability of this report to the National Park Service (NPS) and the Office of Statewide Planning relative to the Federal and State comprehensive outdoor recreation plans signifies compliance with this Act.

14. *Rivers and Harbors Act of 1899, as amended, 33 U.S.C. 401 et seq.*

Compliance: No requirements for Corps of Engineers projects or programs authorized by Congress. The proposed navigation improvement project is included under the continuing authority of the Rivers and Harbors Act.

15. *Watershed Protection and Flood Prevention Act, as amended, 16 U.S.C. 1001 et seq.*

Compliance: Not applicable.

16. *Magnuson-Stevens Act, as amended, 16 U.S.C. 1801 et seq.*

Compliance: Coordination with the National Marine Fisheries Service and preparation of an Essential Fish Habitat (EFH) Assessment signifies compliance with the EFH provisions of the Magnuson-Stevens Act. Coordination is ongoing.

17. *Archaeological Resources Protection Act of 1979, as amended, 16 USC 470 et seq.*

Compliance: Not applicable. No archaeological resources are located in the project area.

18. *American Indian Religious Freedom Act of 1978, 42 U.S.C. 1996.*

Compliance: Must ensure access by Native Americans to sacred sites, possession of sacred objects, and the freedom to worship through ceremonials and traditional rites. Coordination revealed no conflicts.

19. *Native American Graves Protection and Repatriation Act (NAGPRA), 25 U.S.C. 3000-3013, 18 U.S.C. 1170*

Compliance: Regulations implementing NAGPRA will be followed if discovery of human remains and/or funerary items occur during implementation of this project.

### **Executive Orders**

1. *Executive Order 11593, Protection and Enhancement of the Cultural Environment, 13 May 1971*

Compliance: Coordination with the State Historic Preservation Officer signifies compliance.

2. *Executive Order 11988, Floodplain Management, 24 May 1977 amended by Executive Order 12148, 20 July 1979.*

Compliance: Public notice of the availability of this report or public review fulfills the requirements of Executive Order 11988, Section 2(a)(2).

3. *Executive Order 11990, Protection of Wetlands, 24 May 1977.*

Compliance: Public notice of the availability if this report for public review fulfills the requirements of Executive Order 11990, Section 2 (b).

4. *Executive Order 12114, Environmental Effects Abroad of Major Federal Actions, 4 January 1979.*

Compliance: Not applicable to projects located within the United States.

5. *Executive Order 12898, Environmental Justice, 11 February 1994.*

Compliance: Not applicable, the project is not expected to have a significant impact on minority or low income population, or any other population in the United States.

6. *Executive 13007, Accommodation of Sacred Sites, 24 May 1996*

Compliance: Not applicable unless on Federal lands, then agencies must accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners, and avoid adversely affecting the physical integrity of such sacred sites.

7. *Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks. 21 April, 1997.*

Compliance: This project would not create a disproportionate environmental health or safety risk for children and is therefore compliant with this Order.

8. *Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, 6 November 2000.*

Compliance: Consultation with Indian Tribal Governments, where applicable, and consistent with executive memoranda, DoD Indian policy, and USACE Tribal Policy Principles signifies compliance.

### **Executive Memorandum**

1. *Analysis of Impacts on Prime or Unique Agricultural Lands in Implementing NEPA, 11 August 1980.*

Compliance: Not applicable. This project does not involve or impact agricultural lands.

2. *White House Memorandum, Government-to-Government Relations with Indian Tribes, 29 April 1994.*

Compliance: Consultation with Federally Recognized Indian Tribes, where appropriate, signifies compliance.



**FINDING OF NO SIGNIFICANT IMPACT**  
**Point Judith Harbor Navigation Improvement Dredging Project**  
**Narragansett and South Kingstown, Rhode Island**

The Environmental Assessment has reviewed all pertinent information regarding the proposed improvement dredging and disposal of dredged material from Point Judith Harbor, Narragansett and South Kingstown, Rhode Island. The proposed project includes the widening of the existing -15-foot mean lower low water (MLLW) West Bulkhead Channel by 50 feet (for a total width of 200 feet) for a distance of approximately 700 feet, and extending this same channel approximately 1,200 feet northeasterly into the North Basin area at a width of 150 feet and a depth of -11 feet MLLW. Approximately 23,700 cubic yards (CY) of sandy material will be removed from the improvement sections using a mechanical dredge with supporting split-hull dump scows. The sandy dredged material will be placed in nearshore waters off of the Matunuck shoreline in South Kingstown, RI, approximately three miles west of the harbor. The dredged material will be placed in approximately 15 to 18 feet (MLLW) of water to maximize the beneficial use of dredge material for beach nourishment. Construction will occur between October 1 and January 31 and is expected to take two to three months to complete.

This Environmental Assessment has been prepared in accordance with the National Environmental Policy Act of 1969 and all applicable environmental statutes and executive orders. My determination that an Environmental Impact Statement is not required is based upon the information contained in the Environmental Assessment and the following considerations:

- a) The project is not likely to affect any State or Federal rare, threatened, or endangered species pursuant to the Endangered Species Act.
- b) The project will have no significant adverse effect upon existing water quality in the dredging or disposal areas.
- c) A temporary impact will be caused by removal of benthic organisms from the dredge area by dredging operations, and by burial with deposition of sediments at the nearshore placement site. These organisms will be replaced through recolonization of benthos from adjacent areas.
- d) Dredging and disposal operations will cause only localized and temporary increases in turbidity and sedimentation. Dredging will be scheduled between October 1 and January 31, to avoid impacting marine resources (winter flounder).
- e) No cultural resources will be impacted by the proposed dredging and disposal activities.
- f) This project complies with the Clean Air Act. A statement of Conformity can be found in Section 7.9 of the Environmental Assessment.

Based on my review and evaluation of the environmental effects, as presented in the Environmental Assessment, I have determined that the improvement dredging of Point Judith Harbor is not a major Federal action significantly affecting the quality of the human environment. This project is therefore exempt from requirements to prepare an Environmental Impact Statement.

\_\_\_\_\_  
Date

\_\_\_\_\_  
William M. Conde  
Colonel, Corps of Engineers  
District Engineer

**CLEAN WATER ACT SECTION 404(b)(1) EVALUATION  
U.S. ARMY CORPS OF ENGINEERS, NEW ENGLAND DISTRICT  
CONCORD, MA**

PROJECT: Improvement Dredging of Point Judith Harbor of Refuge and Point Judith Pond, Narragansett and South Kingstown, Rhode Island

PROJECT MANAGER: Mr. Mark Habel

Phone: (978) 318-8871

FORM COMPLETED BY: Mr. Todd Randall

Phone: (978) 318-8518

PROJECT DESCRIPTION:

The proposed project includes the widening of the existing -15-foot mean lower low water (MLLW) West Bulkhead Channel by 50 feet (for a total width of 200 feet) for a distance of approximately 700 feet, and extending this same channel approximately 1,200 feet northeasterly into the North Basin area at a width of 150 feet and a depth of -11 feet MLLW. Approximately 23,700 cubic yards (CY) of sandy material will be removed from the improvement sections using a mechanical dredge with supporting split-hull dump scows. The sandy dredged material will be placed in nearshore waters off of the Matunuck shoreline in South Kingstown, RI, approximately three miles west of the harbor. The dredged material will be placed in approximately 15 to 18 feet MLLW of water to maximize the beneficial use of dredge material for beach nourishment. Construction will occur between October 1 and January 31 and is expected to take two to three months to complete.

**NEW ENGLAND DISTRICT  
U.S. ARMY CORPS OF ENGINEERS, CONCORD, MA**

**EVALUATION OF CLEAN WATER ACT SECTION 404(b)(1) GUIDELINES**

**PROJECT: Point Judith Harbor of Refuge and Point Judith Pond Federal Navigation Improvement Project**

**1. Review of Compliance (Section 230.10(a)-(d)).**

- |  |                     |                     |
|--|---------------------|---------------------|
| a. The discharge represents the least environmentally damaging practicable alternative and if in a special aquatic site, the activity associated with the discharge must have direct access or proximity to, or be located in the aquatic ecosystem to fulfill its basic purpose;  | <u>  X  </u><br>YES | <u>      </u><br>NO |
| b. The activity does not appear to:<br>1) violate applicable state water quality standards or effluent standards prohibited under Section 307 of the CWA; 2) jeopardize the existence of Federally listed threatened and endangered species or their critical habitat; and 3) violate requirements of any Federally designated marine sanctuary (if no, see section 2b and check responses from resource and water quality certifying agencies); | <u>  X  </u><br>YES | <u>      </u><br>NO |
| c. The activity will not cause or contribute to significant degradation of waters of the U.S. including adverse effects on human health, life stages of organisms dependent on the aquatic ecosystem, ecosystem diversity, productivity and stability, and recreational, aesthetic, and economic values (if no, see section 2);  | <u>  X  </u><br>YES | <u>      </u><br>NO |
| d. Appropriate and practicable steps have been taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem (if no, see section 5).   | <u>  X  </u><br>YES | <u>      </u><br>NO |

**2. Technical Evaluation Factors (Subparts C-F).**

NA	Not Significant	Significant
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a. Potential Impacts on Physical and Chemical Characteristics of the Aquatic Ecosystem (Subpart C).

- 1) Substrate
- 2) Suspended particulates/turbidity
- 3) Water
- 4) Current patterns and water circulation
- 5) Normal water fluctuations
- 6) Salinity gradients

	X	
	X	
	X	
	X	
	X	
	X	

b. Potential Impacts on Biological Characteristics of the Aquatic Ecosystem (Subpart D).

- 1) Threatened/ endangered species
- 2) Fish, crustaceans, mollusks and other aquatic organisms in the food web
- 3) Other wildlife

	X	
	X	
	X	

c. Potential Impacts on Special Aquatic Sites (Subpart E).

- 1) Sanctuaries and Refuges
- 2) Wetlands
- 3) Mud Flats
- 4) Vegetated Shallows
- 5) Coral Reefs
- 6) Riffle and Pool Complexes

	X	
	X	
X		
X		
X		
X		

d. Potential Effects on Human Use Characteristics (Subpart F).

- 1) Municipal and Private Water Supplies
- 2) Recreational and Commercial Fisheries
- 3) Water-Related Recreation
- 4) Aesthetics
- 5) Parks, national and historic monuments, national seashores, wilderness areas, research sites, and similar preserves

X		
	X	
	X	
	X	
	X	

**3. Evaluation and Testing (Subpart G).**

a. The following information has been considered in evaluating the biological availability of possible contaminants in dredged or fill material. (Check only those appropriate.)

1) Physical Characteristics	X
2) Hydrography in relation to known or anticipated sources of contaminants	X
3) Results from previous testing of the material or similar material in the vicinity of the project	X
4) Known, significant sources of persistent pesticides from land runoff or percolation	-
5) Spill records for petroleum products or designated hazardous substances (Section 311 of CWA)	X
6) Public records of significant introduction of contaminants from industries, municipalities, or other sources	-
7) Known existence of substantial material deposits of substances which could be released in harmful quantities to the aquatic environment by man-induced discharge activities	-
8) Other sources (specify)	-

List Appropriate References:

Environmental Assessment for the Improvement Dredging of Point Judith Harbor, Narragansett, RI., April 2018

b. An evaluation of the appropriate information in 3a above indicates that there is reason to believe the proposed dredge or fill material is not a carrier of contaminants, or that levels of contaminants are substantively similar at extraction and disposal sites and not likely to require constraints. The material meets the testing exclusion criteria.	<u>  X  </u>	<u>          </u>
	YES	NO

**4. Disposal Site Delineation (Section 230.11(f)).**

a. The following factors, as appropriate, have been considered in evaluating the disposal site.

- 1) Depth of water at disposal site
- 2) Current velocity, direction, and variability at disposal site
- 3) Degree of turbulence
- 4) Water column stratification
- 5) Discharge vessel speed and direction
- 6) Rate of discharge
- 7) Dredged material characteristics (constituents, amount, and type of material, settling velocities)
- 8) Number of discharges per unit of time
- 9) Other factors affecting rates and patterns of mixing (specify)

X
X
X
X
X
X
X
-
-

List Appropriate References:

Environmental Assessment for the Improvement Dredging of Point Judith Harbor, Narragansett, RI., April 2018

b. An evaluation of the appropriate factors in 4a above indicates that the disposal site and/or size of mixing zone are acceptable.

<u>X</u> YES	<u>      </u> NO
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**5. Actions To Minimize Adverse Effects (Subpart H).**

All appropriate and practicable steps have been taken through application of recommendation of Section 230.70-230.77 to ensure minimal adverse effects of the proposed discharge.

<u>X</u> YES	<u>      </u> NO
-----------------	---------------------

**6. Factual Determination (Section 230.11).**

A review of appropriate information as identified in items 2 - 5 above indicates that there is minimal potential for short or long term environmental effects of the proposed discharge as related to:

- a. Physical substrate  
(review sections 2a, 3, 4, and 5 above).
- b. Water circulation, fluctuation and salinity  
(review sections 2a, 3, 4, and 5).
- c. Suspended particulates/turbidity  
(review sections 2a, 3, 4, and 5).
- d. Contaminant availability  
(review sections 2a, 3, and 4).
- e. Aquatic ecosystem structure, function and organisms  
(review sections 2b and c, 3, and 5)
- f. Proposed disposal site  
(review sections 2, 4, and 5).
- g. Cumulative effects on the aquatic ecosystem.
- h. Secondary effects on the aquatic ecosystem.

<u>  X  </u> YES	<u>      </u> NO
<u>  X  </u> YES	<u>      </u> NO
<u>  X  </u> YES	<u>      </u> NO
<u>  X  </u> YES	<u>      </u> NO
<u>  X  </u> YES	<u>      </u> NO
<u>  X  </u> YES	<u>      </u> NO
<u>  X  </u> YES	<u>      </u> NO
<u>  X  </u> YES	<u>      </u> NO

**7. Findings of Compliance or Noncompliance.**

- a. The proposed disposal site for discharge of dredged or fill material complies with the Section 404(b)(1) guidelines.

<u>  X  </u> YES	<u>      </u> NO
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\_\_\_\_\_  
Date

\_\_\_\_\_  
William M. Conde  
Colonel, Corps of Engineers  
District Engineer