JUNE 2019

DRAFT ENVIRONMENTAL ASSESSMENT

MAINTENANCE DREDGING
MAYAGÜEZ HARBOR
MAYAGÜEZ, PUERTO RICO

U.S. Army Corps
of Engineers
JACKSONVILLE
DISTRICT

US Army Corps of Engineers
JACKSONVILLE DISTRICT

PROPOSED FINDING OF NO SIGNIFICANT IMPACT

MAINTENANCE DREDGING OF MAYAGÜEZ HARBOR
MAYAGÜEZ, PUERTO RICO

The U.S. Army Corps of Engineers, Jacksonville District (Corps), has conducted an environmental assessment (EA) in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended, under the Authority of the River and Harbor Act of 1935 to assess the effects of periodic maintenance dredging of Mayagüez Harbor, in Mayagüez, Puerto Rico. The Federal Channel reaches 1&2 would be maintained and the dredged material would be placed in the Environmental Protection Agency (EPA) designated ocean dredged material disposal site (ODMDS) located 6.9 miles west of the harbor in water depths ranging between 1,151 to 1,259 feet (351 to 384 meters). Additional information on the alternatives analysis performed to designate the ODMDS, as well as an analysis of the effects of offshore disposal, is contained in the 1988 Environmental Impact Statement (EPA 1988). Therefore, per 40 CFR 1506.4 this proposed Finding of No Significant Impact (FONSI) incorporates by reference all discussions, consultations, effects determinations, and conclusions contained in the EPA EIS.

The recommended plan consists of the following:

- Periodic maintenance dredging to remove approximately 100,000 cubic yards of sand, silt and clay every 10-12 years
- Placing the material in the EPA designated ODMDS

All practicable means to avoid and minimize adverse environmental effects have been explored. Environmental commitments as detailed in the EA will be implemented to minimize impacts.

Pursuant to the Clean Water Act of 1972, 33 USC §1251 et seq., as amended, any discharge of dredged or fill material associated with the proposed placement of dredged material in the ODMDS have been found to be compliant with section 404(b)(1) Guidelines (40 CFR 230).

The Commonwealth of Puerto Rico concurred that the proposed action is consistent with the enforceable policies of the Puerto Rico Coastal Management Program through issuance of water quality certification PN-MH-86 (AG/HA/mc).
The referenced water quality certification, pursuant to Section 401 of the Clean Water Act, includes maintenance dredging of the harbor with placement in the ODMDS.
All conditions of the water quality certification will be implemented in order to comply with Commonwealth water quality standards.

Pursuant to section 7 of the Endangered Species Act (ESA) of 1973, 16 U.S.C. §1531 et seq as amended, consultation with the U.S. Fish and Wildlife Service (USFWS) for project related effect to the threatened Antillean manatee is ongoing. The Corps' has determined that the proposed action may affect, but would be not likely to adversely affect, the manatee. In addition, the Corps initiated informal consultation with National Marine Fisheries Service (NMFS) under the ESA for the effects of dredging the Federal channel via letter dated 4 April 2019 and consultation is ongoing. However, the Corps' South Atlantic Division is working with NMFS to revise the South Atlantic Regional Biological Opinion (SARBO). The current proposal consults on maintenance dredging and coastal operations in Puerto Rico. The Corps will rely on the updated SARBO for future maintenance dredging once ratified.

Pursuant to Section 106 of the National Historic Preservation Act of 1966, 16 U.S.C. §461 to §470x-6, as amended, consultation was initiated by letter dated 4 April 2019 with the Puerto Rico State Historic Preservation Officer (SHPO) in accordance with the National Historic Preservation Act and considerations given under the NEPA. Based on the absence of cultural resources and the recurrent nature of the project, the Corps has determined that periodic operations and maintenance dredging of Mayagüez Harbor with placement of dredged material within the ODMDS would have no effect to historic properties eligible for inclusion in the National Register of Historic Properties. Consultation will be concluded prior to finalization of the environmental assessment.

In view of the above, and the referenced EIS, and after consideration of the public and agency comments received during the public coordination of the EA, I conclude that the recommended plan, dredging of Mayagüez Harbor with placement of dredged material in the ODMDS, would not result in a significant effect on the human environment and therefore, does not require an updated Environmental Impact Statement. This Proposed Finding of No Significant Impact incorporates by reference all discussions and conclusions contained in the EA enclosed herewith.

A copy of the document will be made available to the public under the Puerto Rico tab on the following website: http://www.saj.usace.army.mil/About/DivisionsOffices/Planning/EnvironmentalBranch/EnvironmentalDocuments.aspx. Expand the Puerto Rico tab, then open "Draft Environmental Assessment Maintenance Dredging Mayagüez Harbor Mayagüez, Puerto Rico".

_____ _____

Andrew D. Kelly Jr. Date
Colonel, U.S. Army
District Commander

DRAFT ENVIRONMENTAL ASSESSMENT
ON
MAINTENANCE DREDGING
MAYAGÜEZ HARBOR
MAYAGÜEZ, PUERTO RICO

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

DRAFT ENVIRONMENTAL ASSESSMENT
MAINTENANCE DREDGING
MAYAGÜEZ HARBOR
MAYAGÜEZ, PUERTO RICO

1 PROJECT PURPOSE AND NEED

1.1 PROJECT DESCRIPTION

The U.S. Army Corps of Engineers (Corps), Jacksonville District, is proposing to conduct periodic maintenance dredging of Mayagüez Harbor in Mayagüez, Puerto Rico (Mayagüez harbor project). This would include dredging of Federal channel reaches 1&2 (see Figure 1). All dredged material would be placed in the Environmental Protection Agency (EPA) designated Ocean Dredged Material Disposal Site (ODMDS) located 6 nautical miles west of the harbor (see Figure 1). The Federal channel would be maintained to its authorized dimensions of a 2,200 foot long approach channel 30 feet deep by 1000 feet wide at the seaward limit, decreasing to 500 feet wide where it connects to the 30 feet deep by 500 feet wide by 1,250 feet long terminal. The harbor has natural depths in most areas of 30 to 70 feet and a deep, wide channel though the outlying shoals. The Federal Mayagüez harbor project allows cargo access to the terminal facilities which eliminates the need for light loading ships.

1.2 PROJECT NEED OR OPPORTUNITY

The maintenance requirement of the Mayagüez harbor project is approximately 47,400 cubic yards every 7 years based on hopper dredge records dating back to 1951 (USACE 1981). Although the harbor has natural depths in most areas of 30 to 70 feet Mean lower low water (MLLW) and a deep, wide channel though the outlying reefs, shoals typically form near the east end of the terminal facility as can be seen in the latest hydrographic survey (Figure 2).

Year	Quantity [cubic yards (cy)]
1951	123,798
1956	12,002
1969	120,481
1974	26,423
1978	30,829
1987	78,000

Sediments, primarily sand with some silt from the Quebrada del Oro and Rio Yaguez, discharge into and immediately south of the harbor forming shoaling within the Federal channel necessitating maintenance dredging. Last dredged in 1987, the most recent examination survey documented a total in situ shoaling volume of approximately 73,000 cy within the authorized channels. Minimum depths recorded from the project channel

is 17.1 feet MLLW causing problems for commercial vessel access to the terminal facilities. Vessels are currently being forced to light load, wait for high tides, or prop dredge through the channels. Removal of the shoal material would maintain access to terminal facilities, eliminating the need for lighterage.

Figure 1. Mayagüez Harbor Project Area Map.

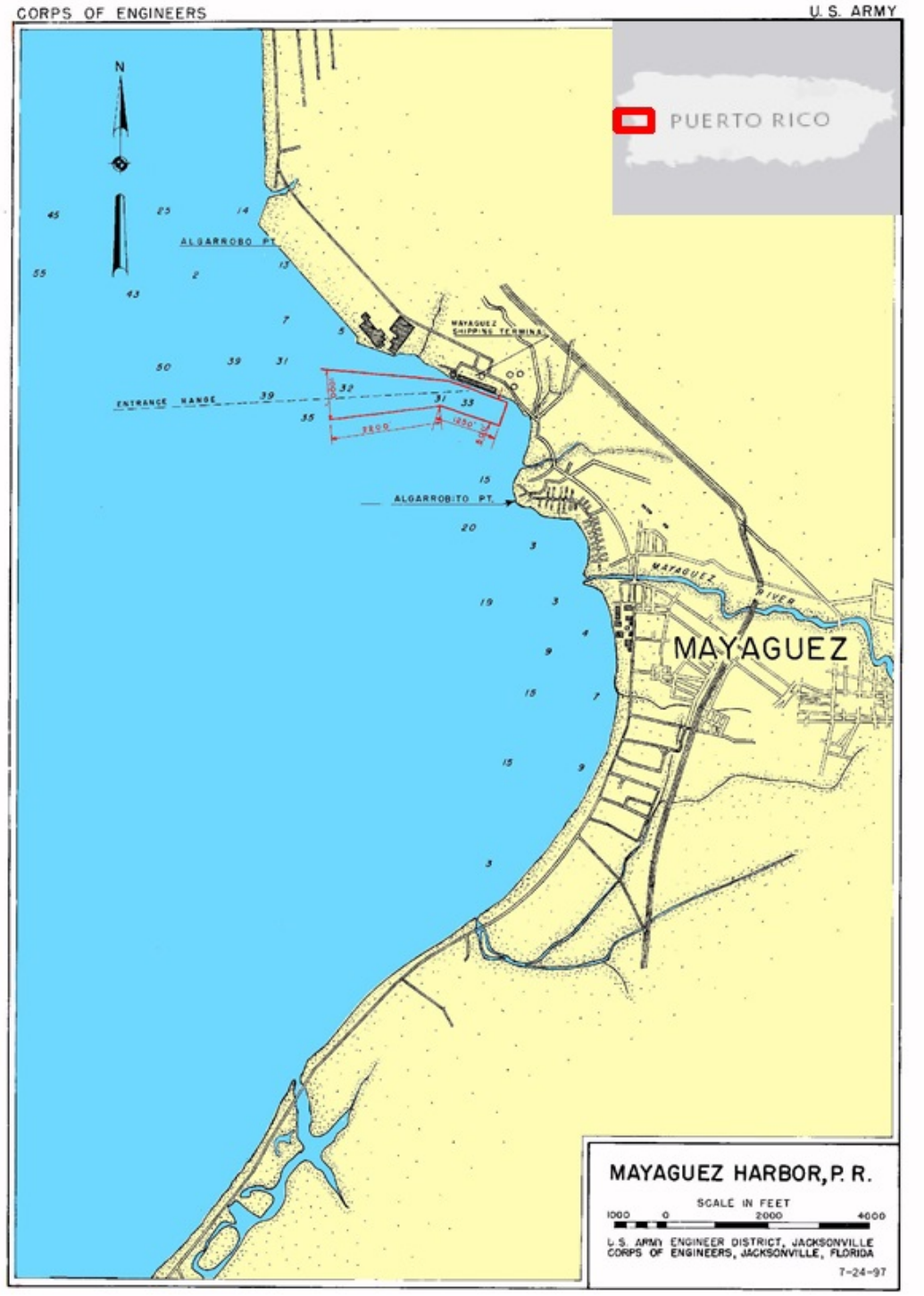


Figure 2. 2018 Hydrographic Survey with 103 Sample Locations.

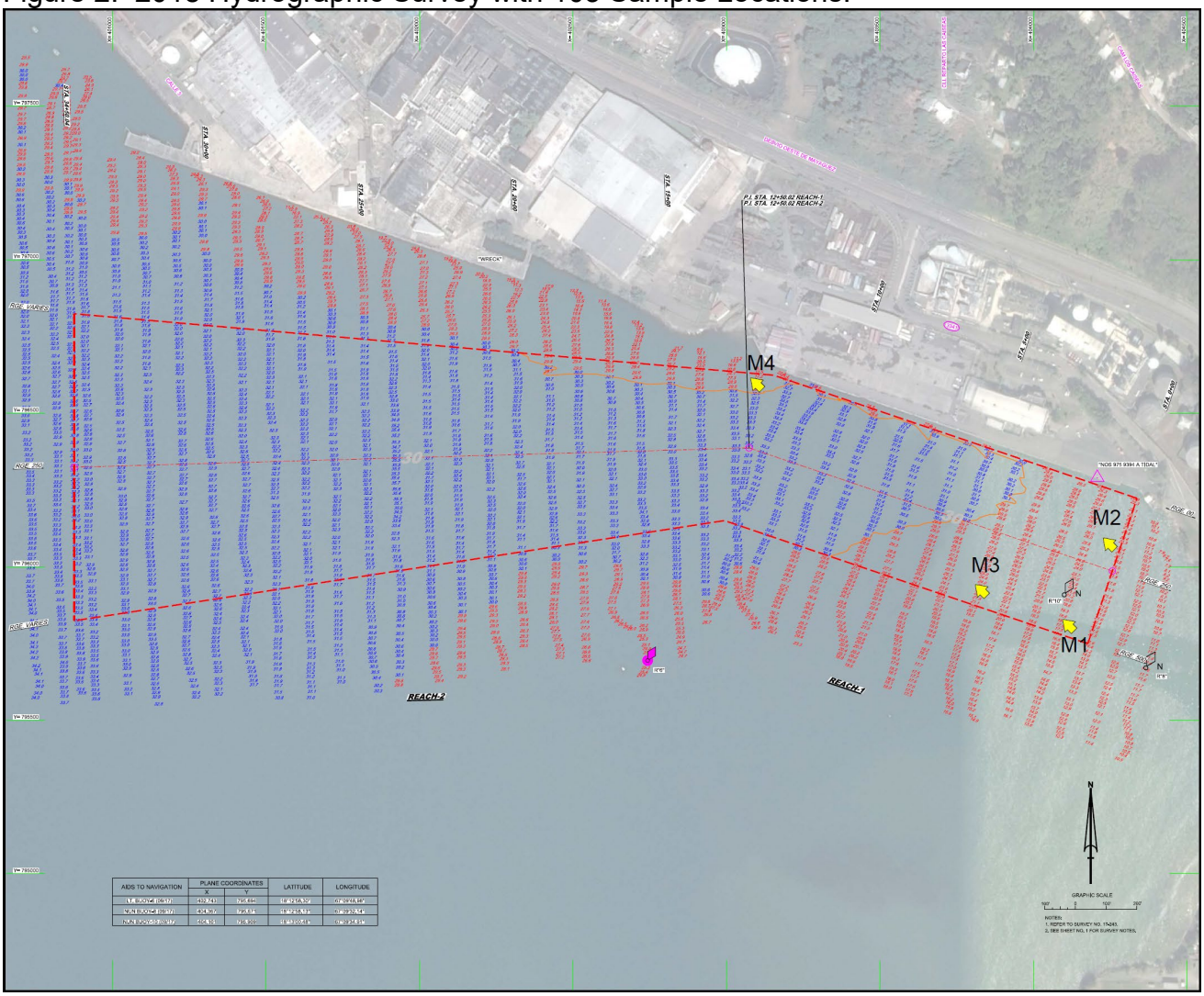
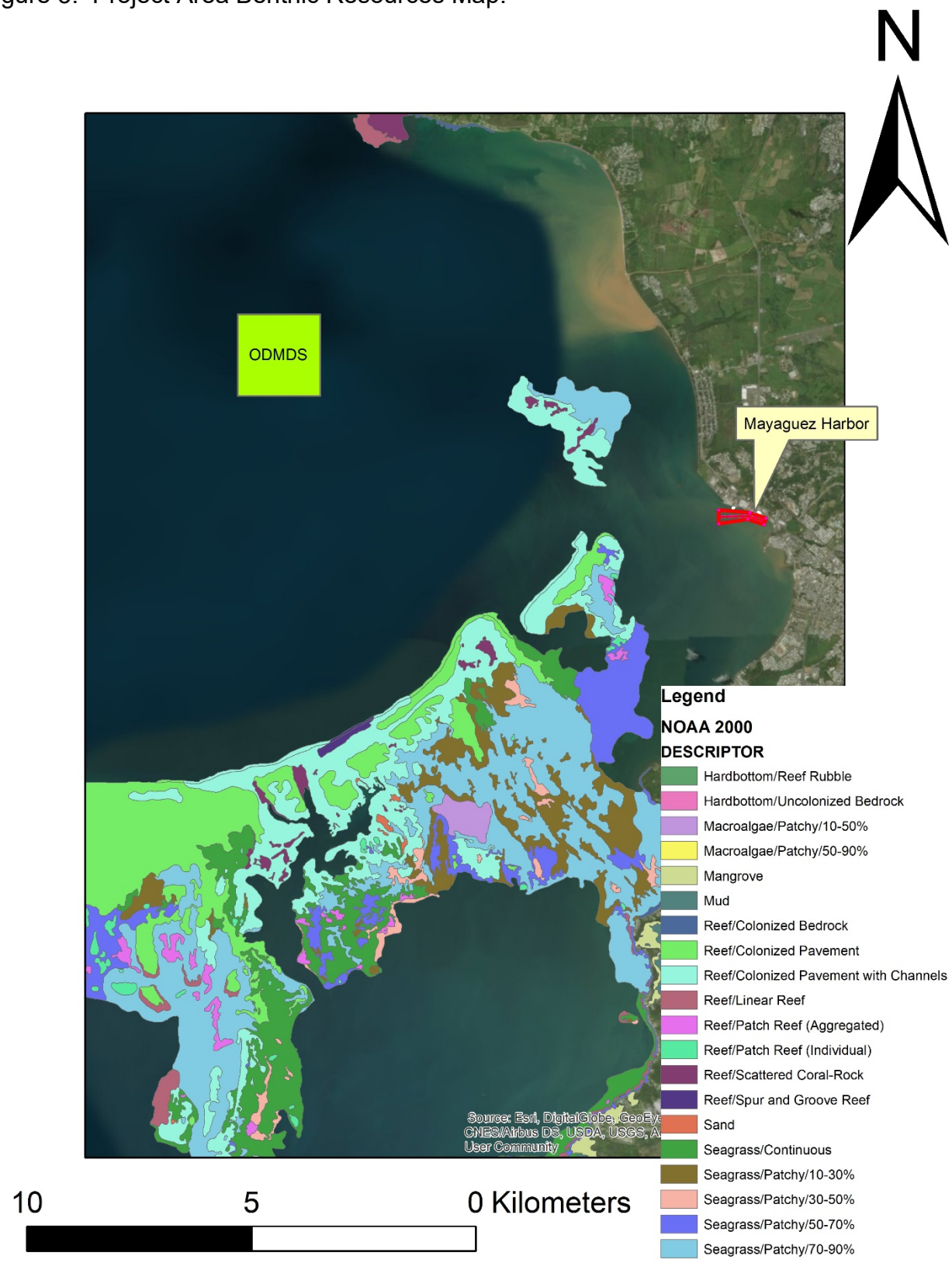


Figure 3. Project Area Benthic Resources Map.



1.3 PROJECT AUTHORITY

1.3.1 AUTHORIZATION

The Mayagüez harbor project was authorized by the River and Harbor Act of 1935 as published in House Document No. 215, 72d Congress, 1st Session, and the River and Harbor Committee Document No. I, 73d Congress, 1st Session. No amendments or modifications have been made to the project since that authorization.

1.4 RELATED ENVIRONMENTAL DOCUMENTS

Related NEPA, design, and planning documents for Mayagüez Harbor project include the following:

- Final Environmental Impact Statement (EIS) for the Designation of Ocean Dredged Material Disposal Sites for the Harbors of Arecibo, Mayagüez, Ponce, and Yabucoa, Puerto Rico. U.S. Environmental Protection Agency, Region II. New York, New York May 1988.

- Reconnaissance Report on the Operation and Maintenance of Mayagüez Harbor, Puerto Rico. U.S. Army Corps of Engineers. Jacksonville, FL. 1981.

1.5 DECISIONS TO BE MADE.

This Environmental Assessment (EA) evaluates whether to conduct periodic maintenance dredging of Mayagüez Harbor, Mayagüez, Puerto Rico.

1.6 SCOPING AND ISSUES

1.6.1 RELEVANT ISSUES

The following issues were identified as relevant to the proposed Mayagüez harbor project and appropriate for further evaluation: threatened and endangered species including sea turtles, Antillean manatee, whales, sharks, grouper and corals and Acroporid coral designated critical habitat (DCH); water quality; essential fish habitat; wildlife resources; air quality; cultural resources; aesthetics; recreation; socio economics; noise; navigation; and coastal barrier resources.

1.6.2 ISSUES ELIMINATED FROM FURTHER ANALYSIS

The proposed action is expected to have little or no impact on soils, housing, or population dynamics. DCH for the hawksbill sea turtle occurs in the coastal waters surrounding Mona and Monito Islands which are over 40 miles (60 km) west of the ODMDS and Mayagüez harbor project. Therefore, the proposed action is expected to have no impact on hawksbill DCH which is eliminated from further analysis in this document. The effects of offshore placement are discussed in detail in the 1988 EIS and all discussions and conclusions contained therein are hereby incorporated by reference into this EA.

1.7 ENVIRONMENTAL COORDINATION

1.7.1 WATER QUALITY CERTIFICATION

This project would be performed in compliance with Commonwealth of Puerto Rico water quality standards and the Puerto Rico Environmental Quality Board (EQB) water quality certification (WQC) PN-MH-86 (AG/HA/mc) issued on 20 February 1981.

1.7.2 ENDANGERED SPECIES ACT- SECTION 7 COORDINATION

In accordance with Section 7 of the Endangered Species Act (ESA), the proposed work is being coordinated with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) by EPA during the updated 103 testing and Site Management and Monitoring Plan (SMMP) update for the ODMDS. In addition, the Corps initiated informal consultation with NMFS under the ESA for the effects of dredging the Federal channel via letter dated 4 April 2019 and consultation is ongoing. However, the Corps' South Atlantic Division is working with NMFS to revise the South Atlantic Regional Biological Opinion (SARBO) to include maintenance dredging and coastal operations in Puerto Rico. The Corps will rely on the updated SARBO for future maintenance dredging once ratified.

2 ALTERNATIVES

The alternatives section is perhaps the most important component of this EA. It describes the no action alternative, the proposed action, and other reasonable alternatives that were evaluated. The beneficial and adverse environmental effects of the alternatives are presented in comparative form, providing a clear basis for choice to the decisionmaker and the public. A preferred alternative, maintenance dredging of the Mayagüez harbor project with ocean dredged material disposal site placement, was selected based on the information and analysis presented in the sections on the Affected Environment and Probable Impacts.

2.1 DESCRIPTION OF ALTERNATIVES

2.1.1 NO ACTION ALTERNATIVE

Mayagüez Harbor served as a port even before the authorization of a Federal navigation project. Until 1932 the harbor was a lighterage port with public lighterage service. Should maintenance be discontinued under the no action alternative, lightering, light loading ships, and/or using another port are all possible scenarios when shoaling reduces the harbor depths.

2.1.2 DREDGING WITH OCEAN DREDGED MATERIAL DISPOSAL SITE PLACEMENT

Maintenance dredging of the Mayagüez harbor project would maintain access to terminal facilities, eliminate the need for lighterage, and meet the intent of the authorized project. Dredged material would be placed in the EPA designated ODMDS located 6.9 miles west of the harbor in water depths ranging between 1,151 to 1,259 feet (351 to 384 meters). Additional information on the alternatives analysis performed to designate the ODMDS, as well as an analysis of the effects of offshore disposal, is contained in the 1988 EIS (EPA 1988) and is hereby incorporated by reference into this analysis.

2.1 PREFERRED ALTERNATIVE

The preferred alternative is to perform maintenance dredging of the Mayagüez harbor project with ODMDS placement in order to maintain the authorized channel dimensions. Due to the character of the fine sediments to be dredged and fringing reef resources offshore from the harbor, the ODMDS is the preferred dredged material placement alternative.

2.2 ALTERNATIVES ELIMINATED FROM FURTHER EVALUATION

2.2.2 ALTERNATE OCEAN DISPOSAL SITES

In Puerto Rico, shallow water environments typically are inhabited by corals. To avoid affecting coral resources, deeper water disposal sites are selected. In the 1988 EIS, four alternate sites were identified for the Mayagüez harbor project using a site selection methodology developed by EPA and the Corps. As a result, two of the alternate sites

were determined to be not suitable for designation due to their location over the insular shelf area where fine sediments from dredged material disposal were likely to be transported onto coral reefs. The third alternate site was eliminated due to its greater distance from the harbor.

2.2.3 UPLAND PLACEMENT ALTERNATIVES

The locations of landfills and barren areas near Mayagüez Harbor were identified and evaluated in the 1988 EIS as potential dredged material placement areas. While the use of land-based placement alternatives near Mayagüez may be technically feasible, no potential sites for hydraulic filling were identified. One potential marsh construction site, two possible landfills, and one possible barren area (quarry) site were identified. Prior to the use of any of these sites as dredged material placement areas, site-specific field studies would be required. In addition, site-specific evaluations of dredged material disposal and monitoring costs would be necessary to determine the economic feasibility of each potential upland location as a dredged material placement area (EPA 1988). Therefore, additional dredged material handling alternatives are not evaluated further in this EA.

2.3 COMPARISON OF ALTERNATIVES

Table 1 lists alternatives considered and summarizes the major features and consequences of the proposed action and alternatives. See section 4.0 Environmental Effects for a more detailed discussion of impacts of alternatives.

Table 1: Alternative Comparison

ALTERNATIVE ENVIRONMENTAL FACTOR	No Action Status Quo (No Maintenance Dredging)	Maintenance Dredging with ODMDS Placement
WHALES	No effect.	May affect, but not likely to adversely affect, with implementation of standard protection measures.
SEA TURTLES	No effect.	May affect, but not likely to adversely affect, with implementation of standard protection measures.
ANTILLEAN MANATEE	No effect.	May affect, but not likely to adversely affect, with implementation of standard protection measures.
SCALLOPED HAMMERHEAD SHARK	No effect.	May affect, but not likely to adversely affect.
NASSAU GROUPER	No effect.	May affect, but not likely to adversely affect.
CORALS	Possible increased nearshore turbidity from prop dredging through shoals.	May affect, but not likely to adversely affect, with implementation of protection measures.
WATER QUALITY	Possible degradation due to nearshore turbidity from prop dredging through shoals.	Short-term localized increase in turbidity at the dredge and placement areas.
ESSENTIAL FISH HABITAT	Possible degradation of estuarine and marine water column with unconsolidated sediment from prop dredging through shoals.	Estuarine and Marine water column with unconsolidated sediment would be temporarily impacted during dredging and placement activities.

ALTERNATIVE ENVIRONMENTAL FACTOR	No Action Status Quo (No Maintenance Dredging)	Maintenance Dredging with ODMDS Placement
FISH AND WILDLIFE RESOURCES	Minor impact due nearshore turbidity from prop dredging through shoals.	Minor impact during dredging and placement. Foraging animal species could be temporarily displaced from the dredge and placement areas.
AIR QUALITY	No effect.	Minor and short-term impacts caused by equipment.
CULTURAL RESOURCES	No effect to historic properties.	No effect to historic properties.
RECREATION	Navigation restrictions likely.	Short-term disruption of recreation in the dredge and placement areas.
AESTHETICS	No effect.	Minor short-term adverse impact due to construction activities.
NOISE	No effect.	Minor and temporary adverse effect from presence of construction equipment.
SOCIO ECONOMICS	Major long-term impact to local economies.	Major long-term benefit to local economies.
COASTAL BARRIER RESOURCES	No effect.	No effect.
NAVIGATION	Long-term impact from lack of channel maintenance.	Temporary disruption during dredging and placement from presence of equipment.

3 AFFECTED ENVIRONMENT

The Affected Environment section succinctly describes the existing environmental resources of the areas that would be affected if any of the alternatives were implemented. This section describes only those environmental resources that are relevant to the decision to be made and does not describe the entire existing environment. This section, in conjunction with the description of the "no action" alternative forms the base line conditions for determining the environmental impacts of the proposed action and reasonable alternatives.

3.1 GENERAL ENVIRONMENTAL SETTING

Mayagüez Harbor is near the center of the west coast of Puerto Rico and faces the Mona Passage, an important sea route to and from the Panama Canal. The port of Mayagüez is the third busiest port in Puerto Rico with the city of Mayagüez having the island's seventh largest urban area (http://welcome.topuertorico.org/reference/cities-by-population.shtml). Mayagüez Harbor is about 93 miles (150 km) by water from San Juan Harbor which is the principal port of the island and 63 miles (101 km) by water from Ponce Harbor which is the second largest port. Mayagüez Harbor is partially protected by two promontories, Algarrabo Point on the north and Algarrobito Point on the south, and by outlying shoals. Mayagüez Harbor has natural depths in most areas of 30 to 70 feet MLLW and a deep, wide channel though the outlying shoals.

Mayagüez Harbor is a customs port of entry owned and operated by the Puerto Rico Ports Authority (PRPA). The terminal includes 1,280 feet of bulkhead and wharf, covered transit sheds, pipelines (for water, fuel oil, and molasses), and a conveyor system to receive bulk grains. Northwest of the terminal is a 1,300-foot bulkhead and wharf with covered storage and pipelines for water and diesel fuels. Anchorage in the harbor is southwest of the terminal in depths of 30 to 50 feet. Vessels used in the harbor are commercial fishing boats, tugs, barges, and oceangoing ships.

3.1.2 DREDGE AREA

The concrete terminal bulkhead and wharf border the Federal channel on the north side of the harbor. Bottom sediments in the harbor channel consist of unconsolidated substrate primarily sand, silt and clay. This material likely originates from municipal storm water discharges discussed in more detail in Sections 1.2 above and 3.4.1 below. There are no unique ecological characteristics in the harbor and it contains similar sediment type and benthic biological community as areas immediately adjacent in Mayagüez bay. The benthos in the channel consist principally of deposit feeders, an ecological type well-adapted to living in the high turbidity that might be caused temporarily by dredging. In 2008 NOAA mapped a patch coral reef approximately 3,300 feet (1,000m) northwest of the dredge area (See Figure 6).

3.1.3 ODMDS

This site is located approximately 6.9 miles west of the Mayagüez Harbor and occupies an area of approximately one square mile in water depths ranging between 1,151 to

1,259 feet (351 to 384 meters). A detailed description of the ODMDS is included in the 1988 EIS and incorporated by reference into this analysis. Please refer to Figure 2 for the locations of sediment samples taken from the proposed dredge area for an evaluation of their suitability for ocean disposal.

3.2 THREATENED AND ENDANGERED SPECIES

Threatened and endangered species that may occur in the project area, and that may be affected by the proposed work, can be found in Table 2.

Table 2. Status of Listed Species that May Occur Within the Project Area.

Species	***Scientific Name***	***Federal Listing****
Green sea turtle	*Chelonia mydas*	LT
Loggerhead sea turtle	*Caretta caretta*	LT
Leatherback sea turtle	*Dermochelys coriacea*	LE
Hawksbill sea turtle	*Eretmochelys imbricata*	LE
Antillean manatee	*Trichechus manatus*	LT
Scalloped hammerhead shark	*Sphyrna lewinii*	LT
Nassau grouper	*Epinephelus striatus*	LT
Sei whale	Balaenoptera borealis	LE
Sperm whale	*Physeter macrocephalus*	LE
Blue whale	*Balaenoptera musculus*	LE
Finback whale	*Balaenoptera physalus*	LE
Elkhorn coral	*Acropora palmata*	LT
Staghorn coral	*Acropora cervicornis*	LT
Pillar coral	*Dendrogyra cylindrus*	LT
Rough cactus coral	*Mycetophyllia ferox*	LT
Lobed star coral	*Orbicella annularis*	LT
Mountainous star coral	*Orbicella faveolata*	LT
Boulder star coral	*Orbicella franksi*	LT

* LE=Endangered and LT=Threatened

3.2.2 SEA TURTLES

The coastal waters of the project area provide developmental habitat for immature hawksbill (*Eretmochelys imbricata*) and green sea turtles (*Chelonia mydas*). In addition, area beaches support nesting populations of hawksbill and leatherback (*Dermochelys coriacea*) sea turtles. Finally, loggerhead (*Caretta caretta*) sea turtles are infrequent visitors to, and nesting by this species has not been documented in, the project area. According to Dow et al. 2007, the beach identification code for Mayagüez is PR15 and nest densities for hawksbill and leatherback sea turtles average 25-100 crawls per year. PR-15 nesting beach habitat occurs along the coast both north and south of Mayagüez Harbor.

3.2.3 ANTILLEAN MANATEE

Manatees can be found in the project channels and in the coastal waters of the Caribbean Sea. The proposed work does not overlap any DCH for this species.

According to Atkins 2011, two manatee “hot spots” (areas with statistically high concentrations of manatees) occur between 3.5 to five miles south of Mayagüez Harbor along the more sparsely developed Bahia Bramadero coastline where significant seagrass foraging habitat occurs.

3.2.4 SCALLOPED HAMMERHEAD SHARK AND NASSAU GROUPER

The threatened scalloped hammerhead shark (*Sphyrna lewinii;* Northwest Atlantic Distinct Population Segment (DPS)) and Nassau grouper (*Epinephelus striatus*) may occur in the vicinity of the project. However, these species are highly mobile and typically considered offshore species.

3.2.5 WHALES

The fin, blue, sei, and sperm whales are all federally listed as endangered under the ESA. On September 8, 2016 NMFS delisted the West Indies DPS (one of fourteen DPSs for this species worldwide) of the humpback whale but the species is still protected under the Marine Mammal Protection Act. None of these large, oceanic whales are expected to be present within the harbor but they could occur near the ODMDS.

3.2.6 HARD CORALS

Seven (7) species of ESA-listed corals could occur on the fringing reefs along the coast approximately 1.5 miles (2.4 km) west of the harbor. Also as discussed in 3.1.2 above, in 2008 NOAA mapped a patch coral reef approximately 3,300 feet (1,000m) northwest of the dredge area (See Figure 6). The coastal waters of the project vicinity from the Mean Low Water (MLW) line to the 30m depth contour, have been designated as Acroporid coral critical habitat (DCH) by NMFS. However, as an existing (already constructed) federally authorized project, all waters identified as a part of Mayagüez harbor project are not included in the DCH (FR 72236 2008). Also, none of these hard coral species are likely to occur in the harbor or project channels due to shoaling and turbid watershed discharges. In Mayagüez Bay most inshore reefs (.6 – 49 %) at 6-12 m show advanced stages of degradation, while the live coral cover at distant reefs increased. In fact, Tourmaline Reef (3 miles west of Mayagüez Harbor) has higher live coral cover than other reefs in Mayagüez Bay (Morelock et al, 2000).

3.3 WATER QUALITY

3.4.1 WATER USE CLASSIFICATION

The urban stream Quebrada del Oro flows directly into the east end of Mayagüez Harbor where the majority of shoaling occurs. In addition, the Rio Yaguez, Rio Majagual and Rio Guanajibo discharge into the Caribbean Sea 0.5, 1.8, and 2.5 miles south of the harbor (respectively). Along the coast and extending offshore 10.3 nautical miles, the coastal waters are designated as Class SC surface waters. Class SC surface waters are intended for use where human contact with the water is indirect (such as fishing or boating), and for use in the propagation and preservation of desirable species.

3.5 ESSENTIAL FISH HABITAT

The 1996 amendments to the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) (16 U.S.C. §1801 et seq.) set forth a new mandate for the NMFS, regional fishery management councils (FMC), and other Federal agencies to promote the protection, conservation, and enhancement of EFH. The EFH provisions of the Magnuson-Stevens Act support one of the nation's overall marine resource management goals to maintain sustainable fisheries. The Magnuson-Stevens Act's final rule, to manage fishery resources and their habitats, was released on January 17, 2002 (67 FR 2343). NMFS and its affiliate, the Caribbean Fisheries Management Council (CFMC), oversee the managed species and their habitats potentially found within the proposed project's footprint. If a construction, permitting, funding, or other proposed action potentially affects EFH(s), then applicable Federal permitting agencies must consult with the NMFS. The EFH consultation ensures the potential action considers the effects on important habitats and supports the management of sustainable marine fisheries (NOAA, 2008).

In the Caribbean waters under the jurisdiction of the U.S., EFH is identified and described based on areas where the life stages of 17 managed species of fish and marine invertebrates occur. Fourteen of the 17 managed species, which have been documented in the study area, are listed in Table 3 below. Since all of these species occur in all habitats within the Caribbean waters under U.S. jurisdiction, EFH includes all waters and substrates, including coral habitats, submerged vegetation, and adjacent intertidal vegetation, including wetlands and mangroves that are necessary for the reproduction, growth, and feeding of marine species.

EFH within Mayagüez Harbor includes estuarine and marine water column with un-colonized, unconsolidated bottom. Consolidated substrates such as coral reefs and colonized hardbottom do not occur in the Mayagüez Harbor project dredge area. However, extensive areas of coral reef, colonized hardbottom and submerged aquatic vegetation (SAV) occur adjacent to the project area in Mayagüez Bay. Therefore, fish and invertebrate species that may occur in the project vicinity are noted in Table 3.

Table 3. Federally Managed Species of Shellfish and Finfish that are Common within the Project Area.

Species	Common Name	FMP
Chaetodon striatus	Banded Butterflyfish	Reef Fish - aquarium trade
Epinephelus guttatus	Red Hind	Reef Fish
Cephalopholis fulvus	Coney	Reef Fish
Lutjanus analis	Mutton Snapper	Reef Fish
Lutjanus apodus	Schoolmaster	Reef Fish
Lutjanus griseus	Gray Snapper	Reef Fish
Ocyurus chrysurus	Yellowtail Snapper	Reef Fish
Haemulon plumieri	White Grunt	Reef Fish
Balistes vetula	Queen Triggerfish	Reef Fish
Sparisoma chrysopterum	Redtail Parrotfish	Reef Fish

Holocentrus ascensionis	Squirrelfish	Reef Fish
Malacanthus plumieri	Sand Tile Fish	Reef Fish
Panulirus argus	Spiny Lobster	Spiny Lobster
Strombus gigas	Queen Conch	Queen Conch

Per the Fishery Management Plan (FMP) for each of the four groups below, EFH is defined as (CFMC and NOAA 2004):

Spiny Lobster FMP: EFH in the U.S. Caribbean consists of all waters from Mean High Water (MHW) to the outer boundary of the Exclusive Economic Zone (EEZ)- habitats used by phyllosoma larvae and seagrass, benthic algae, mangrove, coral, and live/hard bottom substrates from MHW to 100 fathoms depth used by other life stages.

Queen Conch FMP: EFH in the U.S. Caribbean consists of all waters from MHW to the outer boundary of the EEZ – habitats used by eggs and larvae and seagrass, benthic algae, coral, live/hard bottom and sand/shell substrates from MHW to 100 fathoms depth used by other life stages.

Reef Fish FMP: EFH in the U.S. Caribbean consists of all waters from MHW to the outer boundary of the EEZ – habitats used by eggs and larvae and all substrates from MHW to 100 fathoms depth used by other life stages.

Coral FMP: EFH in the U.S. Caribbean consists of all waters from mean low water (MLW) to the outer boundary of the EEZ – habitats used by larvae and coral and hard bottom substrates from MLW to 100 fathoms depth – used by other life stages.

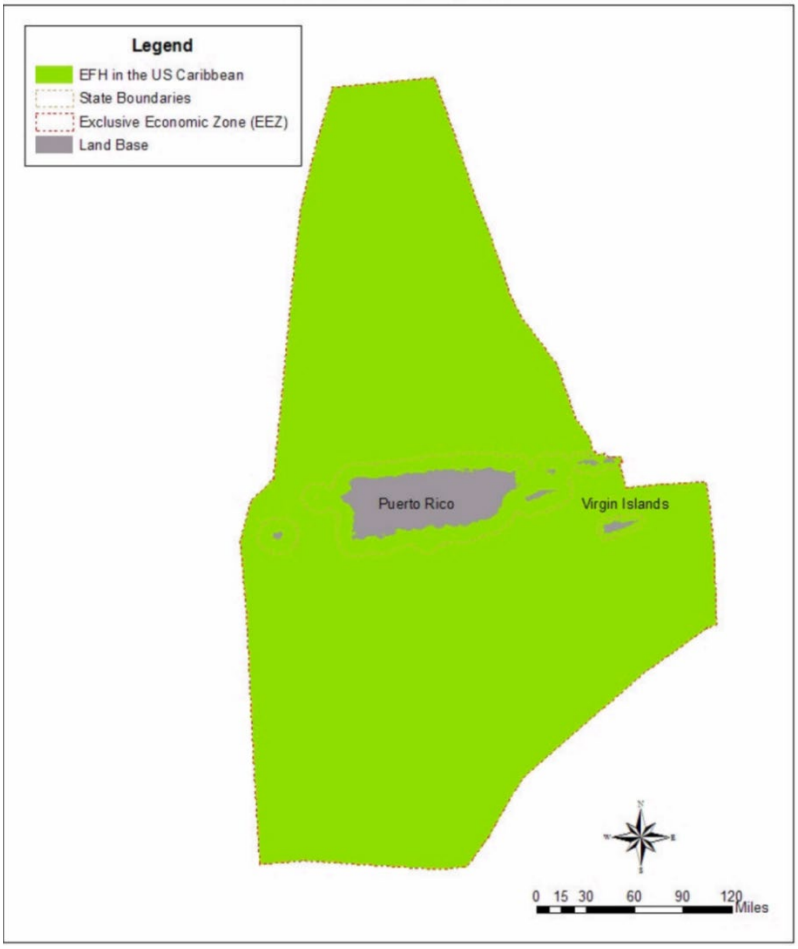


Figure 4. Composite EFH for species and life stages of the Spiny Lobster, Queen Conch, Reef Fish, and Coral.

3.6 FISH AND WILDLIFE RESOURCES

Biota common to west Puerto Rico can be found within the action area. Intensive sport fishing and some commercial fishing occurs in Mayagüez Bay primarily for tarpon and snook, but also ladyfish, white mullet, snappers, jacks, and land and blue crabs. The substrates of the Mayagüez harbor project channels are typically dominated by polychaetes, amphipods and bivalves and these organisms serve as an important food source for shorebirds, fish, and crustaceans. Although the majority of the shorelines adjacent to Mayagüez Harbor are developed, small mangrove stands at the mouths of the Quebrada del Oro and Rio Yaguez may provide nesting, roosting, and feeding sites for wading birds, kingfishers, gallinules and coots, warblers, and other birds.

3.7 AIR QUALITY

Puerto Rico is a United States territory with Commonwealth status. The EPA, Region 2 and the Puerto Rico Environmental Quality Board (EQB) regulate air quality in Puerto Rico. The Clean Air Act (CAA) (42 U.S.C. §7409) gives EPA the responsibility to establish the primary and secondary National Ambient Air Quality Standards (NAAQS)

that set acceptable concentration levels for six criteria pollutants: particulate matter (PM), sulfur dioxide, carbon monoxide, nitrous dioxide, ground level ozone, and lead. Short-term standards (1, 8, and 24-hour periods) have been established for pollutants contributing to acute health effects, while long-term standards (annual averages) have been established for pollutants contributing to chronic health effects. Each state has the authority to adopt stricter standards; Puerto Rico adopted the national ambient air quality standards (NAAQS) established by EPA and developed a State Implementation Plan under the Clean Air Act that incorporates permitting and regulatory requirements for stationary and mobile sources of air pollution. EPA regulations designate Air-Quality Control Regions (AQCRs) in violation of the NAAQS as nonattainment areas. On the basis of the severity of the pollution problem, nonattainment areas are categorized as marginal, moderate, serious, severe, or extreme. EPA regulations designate AQCRs with levels below the NAAQS as attainment areas. Maintenance AQCRs are areas previously designated nonattainment areas that have subsequently been designated attainment areas for a probationary period through implementation of maintenance plans.

Mayagüez Harbor is located within the Puerto Rico AQCR which is comprised of the entire Commonwealth of Puerto Rico, including Vieques, Culebra, and surrounding islands (40 CFR § 81.77). All areas within the AQCR are in attainment or unclassifiable (due to lack of data) for NAAQS for the following criteria pollutants: ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, PM, and lead (EPA 2008). Due to its location, Mayagüez Harbor experiences nearly constant on-shore trade winds and sea breezes

3.8 CULTURAL RESOURCES

The island of Puerto Rico is rich in cultural and historic resources. The city of Mayagüez takes its name from a Taino name, Yagüez. Mayagüez was officially founded by the Spanish in 1760, and by the end of the sixteenth century had grown to 1,800 inhabitants, over 50 houses, and a church. Its status as a port facilitated rapid subsequent development, its population expanding tenfold over the next six decades. By 1835 it had received official status as a Villa, or recognized town, built a town hall, and erected four armed towers along its port; although, some of its most important settlement areas were lost to a fire in 1841. Mayagüez became the second city in Puerto Rico to have a press, El Imparcial de Mayagüez (The Impartial of Mayagüez), established in 1848. Architecturally, it was the first city in Puerto Rico to construct a functioning aqueduct in 1866.

When Puerto Rico fell to the United States in 1898, Mayagüez citizens held protests for and against the change in government, and troops were called in to restore order. During this time the population grew and became more diverse. As a port city, it attracted people from around the world, becoming a major center for the export of agricultural products produced throughout the west. Agricultural producers in Mayagüez grew sugar cane, rice, and fruits and, in its highlands, coffee, which they continue to produce today.

At the turn of the century Mayagüez had become a municipality of over 35,000, with residents from 17 different nations. A university was established in 1909, at the same time a railroad that linked San Juan and Ponce to the city was completed. Parts of the city were destroyed in the 1918 tsunami, but the city continued to grow.

One submerged resource has been recorded approximately 600 meters south of the harbor, opposite of the Punta Algarrobito. A large ancla (anchor), which the Corporation for the Development of the West bills as a 300 year old anchor that was placed there with the aid of three fishing families (see Figure 5). No archaeological, historic, or submerged cultural resources are located within or adjacent to the Mayagüez harbor project or the ODMDS.

Figure 5. Three hundred-year old anchor on Mayagüez waterfront

3.9 RECREATION RESOURCES

Recreational vessels are common in the coastal waters adjacent to Mayagüez Harbor where there is access to fishing grounds, diving spots, and locations for other watersport activities in the Caribbean Sea. In addition, other locally available recreational activities include swimming, beach and park sports, and wildlife viewing/eco-tourism.

3.10 AESTHETIC RESOURCES

The Mayagüez harbor project area consists of a bulkheaded commercial port shoreline, adjacent sandy beaches and Caribbean Sea nearshore bordered by various types of natural areas and development. The Caribbean Sea in the vicinity of the project is picturesque. In addition, the tropical beaches adjacent the harbor provide a serene setting for picnics, fishing and swimming. Although highly channelized and when not in

flood stage, the urban stream Quebrada del Oro and Rio Yaguez provide a tranquil setting as they flow through the historic city of Mayagüez on their way to the sea.

3.11 NOISE

The ambient sound level of a region is the total noise generated, including sounds from natural and artificial sources. The magnitude and frequency of environmental noise may vary considerably over the course of a day and throughout the month because of changing weather conditions and vessel call schedules. Background noise from normal port operations including recreational and commercial vessel traffic and nearby roadways appears to be moderate.

3.12 SOCIO-ECONOMIC

With a large metropolitan area, Mayagüez is one of the largest western municipalities with a more diverse economic profile than many of the other, predominantly rural municipalities (Griffith et al. 2007). Although the tuna canneries closed, after nearly 40 years, in the late 1990s and early 21st century, Mayagüez still has a ferry terminal to the Dominican Republic, three significant commercial fishing centers, one active recreational fishing center, and a number of locations where a handful of fishers store their small vessels and land their catch. Regional fisheries have been heavily influenced by their proximity to the University of Puerto Rico at Mayagüez Sea Grant College Program (Griffith et al. 2007).

3.13 NAVIGATION

Vessels used in the 30-foot deep harbor include commercial fishing boats, tugs, barges, and oceangoing cargo and cruise ships. The harbor provides support for industry and business in and around Mayagüez. The port handles general cargo as well as bulk fuels, grains, and fresh fish. The grain goes primarily to the five distilleries which comprise a high percentage of the breweries in Puerto Rico. The major portion of the fuels are for electrical power generation. In addition to cargo, since March 2011, ferry service to the Dominican Republic has been offered by America Cruise Ferries. Finally, during the Winter 2010/2011 cruise season, the port was visited periodically by ships of the Holland America Line, including the MS Prinsendam (https://en.wikipedia.org/wiki/Port_of_Mayag%C3%BCez).

3.14 COASTAL BARRIER RESOURCES

The Coastal Barrier Resources Act (CBRA) of 1982 (Public Law 97-348) discourages development on largely undeveloped coastal barriers along the Atlantic, Gulf, and Great Lakes coasts by prohibiting use of Federal expenditures. The Act was designed to help conserve important coastal habitats, save Federal dollars and protect human lives. Coastal Barrier Resource System (CBRS) Unit PR-72 Rio Guanajibo (PR-72) occurs 2.9 miles (4.7 km) S-SW of the harbor (Figure 6). Maintenance dredging is consistent with provisions of the CBRA which excepts: "maintenance of existing channel improvements... and including the disposal of dredge materials related to such improvements".

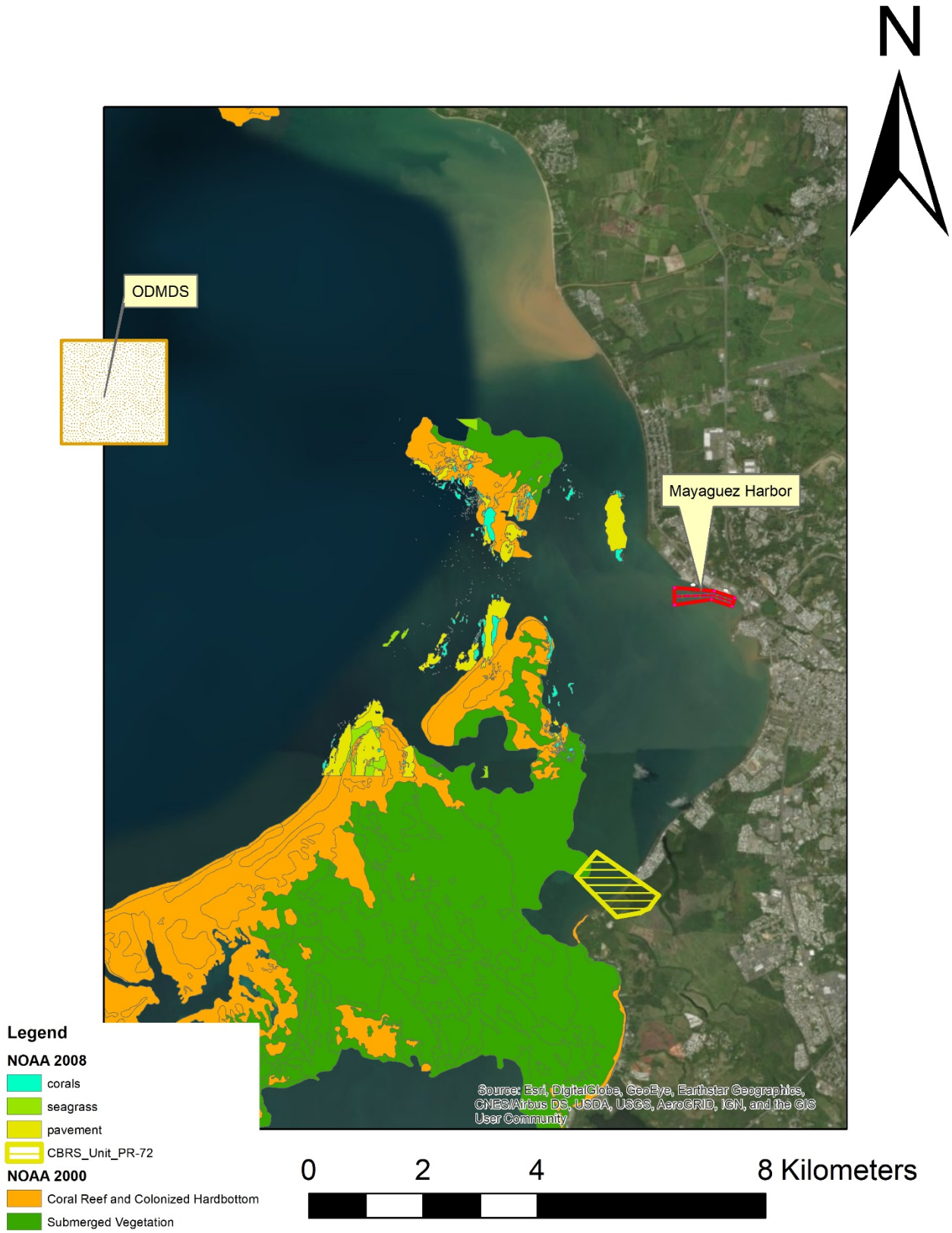


Figure 6. CBRS Unit PR-72 Map.

4 ENVIRONMENTAL EFFECTS

This section is the scientific and analytic basis for the comparisons of the alternatives. See table 1 in section 2.0 Alternatives, for summary of impacts. The following includes anticipated changes to the existing environment including direct, indirect, and cumulative effects.

4.1 THREATENED AND ENDANGERED SPECIES

4.1.1 NO ACTION ALTERNATIVE

As discussed in Section 2.1.1 above, should maintenance dredging of Mayagüez Harbor be discontinued under the no action alternative, then lightering, light loading ships, and/or ships using another port are all possible scenarios when unabated shoaling negatively impacts channel depths causing restrictions to ships drafts. A ship-to-shore lightering service at Mayagüez Harbor for movement of commodities from vessels anchored in deep water would increase commercial vessel (barge) traffic possibly increasing marine animal interactions. However, significant effects to listed species from the no action alternative would not be expected.

4.1.2 DREDGING WITH OCEAN DREDGED MATERIAL DISPOSAL SITE PLACEMENT ALTERNATIVE

In accordance with Section 7 of the Endangered Species Act, consultation with the USFWS and NMFS is being completed by EPA Region 2 during the updated 103 concurrence process for use of the ODMDS. The effects of placing the material in the ODMDS were evaluated in the 1988 EIS and updated EPA consultations, and as discussed in Sections 2.1.2 and 3.1.3 above, are incorporated by reference into this EA.

The Corps has determined that the proposed dredging with ocean dredged material disposal site placement may affect, but is not likely to adversely affect sea turtles, manatees, whales, sharks, grouper or corals or adversely modify Acroporid coral DCH. This determination was based on the implementation of species specific protective measures and the type of dredging equipment typically used to maintain the harbor. The Corps initiated informal consultation with NMFS via letter dated 4 April 2019 and consultation is ongoing. It is anticipated that the terms and conditions of the 1997 NMFS South Atlantic Division Regional Biological Opinion (SARBO) will be followed for these species. Additionally, maintenance dredging using hopper dredges would continue to be prohibited in Puerto Rico until NMFS issues an updated SARBO. A hydraulic cutter suction pipeline dredge or mechanical dredge would be used for this event and therefore adverse impacts or "takings" of sea turtles would not be anticipated. Pursuant to the SARBO and 9 March 1999 Corps Wilmington District ESA consultation (F/SER3:EGH:ts), these types of dredges do not pose a risk to sea turtles like large commercial hopper dredges do. However, in order to further minimize potential adverse impacts to sea turtles, the following measures would be implemented:

• The contractor would instruct all personnel associated with the project of the potential presence of these species and the need to avoid collisions with sea turtles. All construction personnel would be responsible for observing water-related activities for the presence of these species.

• The contractor would advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing sea turtles, which are protected under the Endangered Species Act of 1973.

• Siltation barriers would be made of material in which a sea turtle cannot become entangled, be properly secured, and be regularly monitored to avoid protected species entrapment.

• All vessels associated with the construction project would operate at "no wake/idle" speeds at all times while in the construction area and while in water depths where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels would preferentially follow deep-water routes (e.g., marked channels) whenever possible.

• If a sea turtle is seen within 100 yards of the active daily construction/disposal operation or vessel movement, all appropriate precautions would be implemented to ensure its protection. These precautions would include cessation of operation of any moving equipment closer than 50 feet of a sea turtle. Operation of any mechanical construction equipment would cease immediately if a sea turtle is seen within a 50-foot radius of the equipment. Activities would not resume until the protected species has moved at its own volition to a distance greater than 50 feet.

• Any collision with and/or injury to a sea turtle would be reported immediately to the NMFS Protected Resources Division (727-824-5312) and the local authorized sea turtle stranding/rescue organization.

4.1.2.1 Antillean Manatee and Whales

Standard protective measures would be taken during placement activities to ensure the safety of manatees and whales. To make the contractor and his personnel aware of the potential presence of these species in the project area, their endangered status, and the need for precautionary measures, the contract specifications would include the following standard manatee and whale protection clauses:

• The contractor would instruct all personnel associated with construction activities about the potential presence of manatees and whales in the area and the need to avoid collisions with them.

• If siltation barriers are used, they shall be made of material in which manatees and whales cannot become entangled, are properly secured, and are regularly monitored to

avoid manatee entrapment. Barriers must not block entry to or exit from essential habitat.

- If a manatee were sighted within 100 yards of the project area, all appropriate precautions would be implemented by the contractor to ensure protection of the manatee. These precautions would include the operation of all moving equipment no closer than 50 feet of a manatee. If a manatee were closer than 50 feet to moving equipment or the project area, the equipment would be shut down and all construction activities would cease to ensure protection of the manatee. Construction activities would not resume until the manatee has moved under its own volition to a distance greater than 50 feet.

- The vessel operators shall maintain a 500-yard buffer between the vessel and any whale.

- All vessels associated with the project would operate at 'no wake' speeds at all times while in shallow waters or channels where the draft of the boat provides less than three feet clearance from the bottom. Boats used to transport personnel would be shallow draft vessels, preferably of the light-displacement category, where navigational safety permits. Vessels transporting personnel between the landing and any workboat would follow routes of deep water to the greatest possible extent. Shore crews would use upland road access if available.

- Mooring bumpers would be placed on all large vessels wherever and whenever there is a potential for manatees to be crushed between two moored vessels. The bumpers would provide a minimum stand-off distance of four feet.

- All personnel would be advised that there are civil and criminal penalties for harming, harassing, or killing manatees and whales, which are protected under the Endangered Species Act and the Marine Mammal Protection Act.

4.1 WATER QUALITY

4.2.1 NO ACTION ALTERNATIVE

No changes to water quality are expected from the no action alternative.

4.2.2 DREDGING WITH OCEAN DREDGED MATERIAL DISPOSAL SITE PLACEMENT ALTERNATIVE

The primary anticipated change in water quality at the proposed dredging and ocean dredged material disposal site would be a temporary increase in turbidity. According to the Commonwealth of Puerto Rico water quality standards for coastal waters, turbidity levels during dredging are not to exceed 10 nephelometric turbidity units (NTUs) above background levels at the edge of normally a 150-meter mixing zone. In order to comply with these standards, turbidity will be monitored during the proposed dredging. If at any

time the turbidity standards were exceeded, those activities causing the exceedance would temporarily cease.

4.3 ESSENTIAL FISH HABITAT

4.3.1 NO ACTION ALTERNATIVE

No impacts to EFH are expected from the no action alternative.

4.3.2 DREDGING WITH OCEAN DREDGED MATERIAL DISPOSAL SITE PLACEMENT ALTERNATIVE

The proposed dredging with ocean dredged material disposal site placement could impact approximately 51.5 acres (208,221 m^2) of marine water column and unconsolidated substrate. However, only a portion of the project area would be dredged during each maintenance event depending on the extent of shoaling at that time. Species managed by the NMFS that are common within the project area can be found in Table 3. The Corps has determined that the proposed action would not have a significant adverse impact on EFH or federally managed fisheries along the west coast of Puerto Rico. This determination was based on the fact that the substrate of the project area is naturally dynamic and unconsolidated, and measures shall be taken to protect adjacent habitat.

Turbidity could affect vision of marine life within the sediment plume as well as those marine organisms with gills, but these effects would be temporary as they would be limited to the duration of the dredging operations. Dredging activities are anticipated to take up to 60 days every 10-12 years (shoaling due to storms could require more frequent events) and migrating larvae and/or juvenile fish could be subject to project related elevated turbidity and suspended sediment levels during construction. However, since dredging is anticipated to occur approximately every 10-12 years (shoaling due to storms could require more frequent events), suppression of re-colonization of benthic organisms and other trophic levels up the food chain is not expected due to this long duration between events. In addition, it is important to note that the dredge area encompasses a fraction of the entire water body, and similar habitat occurs immediately adjacent. EFH coordination with the NMFS will be initiated concurrently with noticing of this draft NEPA document.

4.4 FISH AND WILDLIFE RESOURCES

4.4.1 NO ACTION ALTERNATIVE

Significant effects to fish and wildlife resources from the no action alternative are not anticipated.

4.4.2 DREDGING WITH OCEAN DREDGED MATERIAL DISPOSAL SITE PLACEMENT ALTERNATIVE

As previously stated, the proposed dredging and ocean dredged material disposal site placement would result in temporary impacts to benthos. The excavation would result

in a loss of benthic organisms in the Federal channel. Those communities, principally polychaetes, would reestablish quickly upon completion of work. The dredge area is expected to be re-colonized with benthic organisms from adjacent similar habitats especially since construction is anticipated to occur approximately every 10-12 years (shoaling due to storms could require more frequent events). In addition, any fish, seabirds, and other marine life temporarily displaced during dredging operations would be expected to return following completion of construction. In addition, some opportunistic foraging during dredging is expected by some fish and birds. The effects of offshore disposal are discussed in detail in the 1988 EIS and are incorporated into this analysis by reference.

4.5 AIR QUALITY

4.5.1 NO ACTION ALTERNATIVE

The no action alternative could result in additional vehicle emissions due to the need to light load ships or offload cargo offshore. Barging activities would likely increase as well as trucking activities on the roads between Mayagüez and other Puerto Rican ports. The result would be an overall increase in the operation of barges and trucks and therefore an increase is emissions. However, since the Mayagüez area of Puerto Rico is an attainment area for the criteria pollutants, significant impacts to air quality from the no action alternative are not anticipated.

4.5.2 DREDGING WITH OCEAN DREDGED MATERIAL DISPOSAL SITE PLACEMENT ALTERNATIVE

Construction equipment from the proposed dredging with ocean dredged material disposal site placement would emit exhaust fumes, but this is anticipated to be a temporary and minor degradation of local air quality. Operations are typically powered by diesel engines and depending on the size, type, age, and condition of the equipment, various emissions can be expected for the duration of the construction. It is important to note that the dredging will occur in a harbor that experiences nearly constant trade winds and sea breezes.

After dredging there could be fewer vessel calls overall, albeit more fully loaded vessels. The project area is compliant with Puerto Rico air quality standards. It has been determined that the proposed dredging would not exceed *de minimis* (a level of risk too small to be concerned with) levels of direct or indirect emissions of a criteria pollutant or its precursors and are exempted by 40 CFR § 93.153. For these reasons a conformity determination is not required for this project.

4.6 CULTURAL RESOURCES

4.6.1 NO ACTION ALTERNATIVE

The no action alternative poses no effect to cultural resources.

4.6.2 DREDGING WITH OCEAN DREDGED MATERIAL DISPOSAL SITE PLACEMENT ALTERNATIVE

Based on the absence of cultural resources and the recurrent nature of the proposed dredging with ocean dredged material disposal site placement, the Corps has determined that periodic O&M dredging of Mayagüez Harbor and placement of dredged material within the ODMDS would have no effect to historic properties eligible for inclusion in the National Register of Historic Properties. Consultation with the Puerto Rico State Historic Preservation Officer (SHPO) was initiated by letter on 4 April 2019. Consultation will be concluded prior to finalization of the report.

4.7 RECREATIONAL RESOURCES

4.7.1 NO ACTION ALTERNATIVE

The cessation of maintenance work at Mayagüez Harbor under the no action alternative could negatively impact recreational boating in the coastal waters adjacent the harbor. However, since commercial ships are the primary port users, significant effects to recreational resources from the no action alternative are not anticipated.

4.7.2 DREDGING WITH OCEAN DREDGED MATERIAL DISPOSAL SITE PLACEMENT ALTERNATIVE

The proposed dredging with ocean dredged material disposal site placement would temporarily disrupt normal vessel traffic (including recreational boating) from the presence of the dredge and equipment in the harbor for the duration of construction. However, maintenance dredging is essential for safe, economical navigation including recreational boating and would occur approximately once every 10-12 years.

4.8 AESTHETIC RESOURCES

4.8.1 NO ACTION ALTERNATIVE

There could be an aesthetic deterioration of the urban harbor and port facilities from the cessation of maintenance under the no action alternative. Shoaling could eventually result in an exposed dry beach where the channel is currently.

4.8.2 DREDGING WITH OCEAN DREDGED MATERIAL DISPOSAL SITE PLACEMENT ALTERNATIVE

Aesthetic resources, or visual appeal, of the harbor area could be temporarily adversely impacted during construction due to the presence of the dredge and associated equipment.

4.9 NOISE

4.9.1 NO ACTION ALTERNATIVE

The cessation of maintenance dredging under the no action alternative would likely result in light loading ships or offloading cargo offshore. Barging activities would likely increase as well as trucking activities on the roads between Mayagüez and other Puerto

Rican ports. The result would be an overall increase in the operation of ships, barges and trucks and therefore an increase noise levels around this commercial harbor.

4.9.2 DREDGING WITH OCEAN DREDGED MATERIAL DISPOSAL SITE PLACEMENT ALTERNATIVE

The harbor is bounded by commercial and residential development and with the proposed dredging with ocean dredged material disposal site placement, the noise created by construction equipment could result in a temporary adverse effect on the local community. There would be a major short-term increase in noise levels from the presence and operation of the dredge and scows/tugs used to transport material to the ODMDS. These impacts are considered short-term because they would only occur during the construction period approximately once every 10-12 years.

4.10 SOCIO-ECONOMIC

4.10.1 NO ACTION ALTERNATIVE

The cessation of maintenance dredging at Mayagüez Harbor could have long-term economic and social repercussions in the local area and region. Harbor shoaling would reduce existing Federal channel depths and, if not removed, cause restrictions to ships drafts. Over the long-term, the shoaling could become too great for economical ship operation resulting in the loss of ship traffic and/or higher transportation costs from lighterage or light loading, resulting in an economic burden for the local and regional area.

4.10.2 DREDGING WITH OCEAN DREDGED MATERIAL DISPOSAL SITE PLACEMENT ALTERNATIVE

Maintenance dredging would result in some temporary disruption of normal vessel traffic in the harbor. However, upon completion of the proposed dredging with ocean dredged material disposal site placement, the local and regional economy would benefit from safe, economical navigation and utilization of port facilities to their optimum economy and efficiency to keep the port viable in a competitive market.

4.11 NAVIGATION

4.11.1 NO ACTION ALTERNATIVE

If Mayagüez Harbor were not maintained shoaling would reduce channel depths and, if not removed, cause additional restrictions to ship access to terminal facilities. Over the long-term, the shoaling would result in higher transportation costs from lighterage or light loading, and ultimately, loss of ship traffic to other ports.

4.11.2 DREDGING WITH OCEAN DREDGED MATERIAL DISPOSAL SITE PLACEMENT ALTERNATIVE

Some temporary disruption of normal vessel traffic in the harbor and nearshore coastal waters would occur during the proposed dredging with ocean dredged material disposal site placement. However, the project provides safe, economical navigation and for

utilization of port facilities to their optimum economy and efficiency. Therefore, maintaining the Federal channel would support safe and efficient navigation.

4.12 COASTAL BARRIER RESOURCES

4.12.1 NO ACTION ALTERNATIVE

There would be no effect to CBRS unit PR-72 from the no action alternative.

4.12.2 DREDGING WITH OCEAN DREDGED MATERIAL DISPOSAL SITE PLACEMENT ALTERNATIVE

The dredge area and ODMDS are sufficiently far north and northwest (respectively) of Unit PR-72 that the proposed dredging with ocean dredged material disposal site placement is not anticipated to have any effect on the CBRS unit. Coordination with the USFWS is ongoing.

4.13 CUMULATIVE IMPACTS

Cumulative impact is the "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions" (40 CFR 1508.7). Table 4 summarizes the impact of such cumulative actions by identifying the past, present, and reasonably foreseeable future condition of the various resources which are directly or indirectly impacted by the proposed action and its alternatives. The table also illustrates the with-project and without-project condition (the difference being the incremental impact of the project). Also illustrated is the future condition with any reasonable alternatives (or range of alternatives).

TABLE 4: SUMMARY OF CUMULATIVE IMPACTS (NOTE: The harbor was authorized in 1935 but maintenance records begin in 1951. Therefore, the timeline for this cumulative impacts analysis is from 1951 to the present, and is limited in space to the dredge area.)

	Past (historical project impacts)	Present (current project impacts)	Future without project (No Action Alternative)	Future with proposed dredging and ODMDS placement (Preferred Alternative)
Sea turtles	Construction of the terminal facilities may have converted nesting beach habitat.	Use of clamshell or cutterhead dredge does not pose a risk to sea turtles; large commercial hopper dredges entrain sea turtles.	Minimal effect.	Temporary minor impact during construction due to presence of equipment in the project area.
Manatees	Construction of the terminal facilities reduced lightering or light loading thereby reducing the number of vessel trips.	Minimal effect with use of standard protection measures.	Minimal effect.	Minimal effect with use of standard protection measures.
Whales	Construction of the terminal facilities reduced lightering or light loading thereby reducing the number of vessel trips.	Minimal effect with use of standard protection measures.	Minimal effect.	Minimal effect with use of standard protection measures.
Corals	Construction of the navigation channel and terminal facilities reduced lightering or light loading reducing the number of vessel trips and therefore the chance of accidental groundings.	Minimal effect with use of standard protection measures.	Minimal effect.	Minimal effect with use of standard protection measures.
Water quality	Temporary increase in turbidity with past dredging.	Pollution prevention measures have resulted in Class SC designation.	Minimal effect.	Temporary increase in turbidity during dredging. Would be monitored and maintained within Commonwealth standards.
Essential Fish Habitat	No significant effect on Federally managed fish species.	No significant effect on Federally managed fish species with avoidance of resources outside the channels.	Minimal effect.	No significant effect on Federally managed fish species with avoidance of resources outside the channels. Frequency not expected to suppress benthic recovery.
Fish and Wildlife Resources	Loss of terrestrial and aquatic habitat with construction of the harbor and terminal facility.	Wildlife temporarily displaced during construction.	Minimal effect.	Dredging would impact benthic organisms. Wildlife temporarily displaced during construction.
Air Quality	Local emissions increased with creation of navigation channel. Minor emissions from dredging equipment.	Minor emissions from dredging equipment. De minimis effect to air quality.	Possible increase in emissions due to increased vessel traffic.	Minor emissions from construction equipment. De minimis effect to air quality.

	Past (historical project impacts)	Present (current project impacts)	Future without project	Future with proposed dredging and ODMDS placement
Cultural Resources	No effect to cultural resources.	No effect to cultural resources.	No effect to cultural resources.	No effect to cultural resources.
Recreation Resources	Construction of navigation channels created recreational opportunities (boating).	Dredging beneficial to boating. Dredging equipment temporarily disrupts boat traffic.	Shoaling could affect recreational boating.	Equipment could temporarily disrupt recreational boating. Benefit from increased channel depths.
Aesthetic Resources	Construction of the harbor affected local aesthetic resources.	Equipment temporarily affects aesthetic resources.	Shoaling could negatively affect aesthetics.	Equipment would temporarily affect aesthetic resources.
Noise	Construction of navigation channels increased local noise levels.	Construction equipment noise is temporarily impactful.	Possible long-term increase in noise levels due to increased vessel traffic.	Construction equipment noise is temporarily impactful.
Navigation	Dredging of the Federal channels benefitted safe and efficient navigation.	Benefit when maintenance occurs.	Unabated shoaling negatively impacts navigation.	Benefit from maintenance of the Federal channel. Temporary disruption during construction.
Socio-Economics	Construction of navigation channels created a significant positive economic stimulus.	Harbor continues to provide an economic stimulus.	Impact from loss of business due to shoaling limiting access to terminal facilities.	Positive economic impact if the proposed dredging and offshore placement was performed.

4.14 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

4.14.1 IRREVERSIBLE

An irreversible commitment of resources is one in which the ability to use and/or enjoy the resource is lost forever. Other than the use of fuel, equipment and supplies, there would be no irreversible commitment of resources.

4.14.2 IRRETRIEVABLE

An irretrievable commitment of resources is one in which, due to decisions to manage the resource for another purpose, opportunities to use or enjoy the resource as they presently exist are lost for a period of time. Other than the dredging temporarily disrupting navigation and recreational activities, there would be no irretrievable commitment of resources.

4.15 UNAVOIDABLE ADVERSE ENVIRONMENTAL EFFECTS

The dredging would temporarily adversely impact benthic organisms, some fish species, and other wildlife.

4.16 LOCAL SHORT-TERM USES AND MAINTENANCE/ENHANCEMENT OF LONG-TERM PRODUCTIVITY

The proposed work is typically of short duration. Adversely affected benthos would be expected to recover in less than a year, possibly longer. Most fish species and other motile organisms, like crabs, should be able to avoid the project area. Therefore, the long-term productivity of fish and other motile species should not be significantly affected. As the dredging occurs only periodically, wildlife would re-colonize and habituate the dredge site between events.

4.17 INDIRECT EFFECTS

Harbor dredging should minimize shoaling and improve navigational safety which could increase cruise ship related tourism.

4.18 COMPATIBILITY WITH FEDERAL, COMMONWEALTH, AND LOCAL OBJECTIVES

This project has wide support and is compatible with Federal, Commonwealth, and local objectives.

4.19 ENVIRONMENTAL COMMITMENTS

The U.S. Army Corps of Engineers and its contractors commit to avoiding, minimizing or mitigating for adverse effects during construction activities by including the following commitments in the contract specifications:

1. A clamshell, backhoe, or cutterhead would most likely be used to perform the proposed work; therefore, adverse impacts to sea turtles are not anticipated. Other sea turtle, manatee and whale protective measures, such as informing contract personnel of

the presence of these species in the area and the need to avoid collisions/harm to them as well as equipment lighting requirements shall also be implemented.

2. Standard protective measures for manatees and whales shall be required.

3. The Jacksonville District's migratory bird protection measures shall be implemented.

4. The work shall be performed in compliance with Puerto Rico water quality standards.

5. Air emissions such as vehicular exhaust and dust shall be de minimis.

6. The Corps contracting officer would notify the contractor in writing of any observed noncompliance with Federal, Commonwealth, or local laws or regulations, permits and other elements of the contractor's Environmental Protection Plan. The contractor would, after receipt of such notice, inform the contracting officer of proposed corrective action and take such action as may be approved. If the contractor fails to comply promptly, the contracting officer would issue an order stopping all or part of the work until satisfactory corrective action has been taken. No time extensions would be granted or costs or damages allowed to the contractor for any such suspension.

7. The contractor would train his personnel in all phases of environmental protection. The training would include methods of detecting and avoiding pollution, familiarization with pollution standards, both statutory and contractual, and installation and care of facilities to insure adequate and continuous environmental pollution control. The contractor's quality control and supervisory personnel would be thoroughly trained in the proper use of monitoring devices and abatement equipment, and would be thoroughly knowledgeable of Federal, Commonwealth, and local laws, regulations, and permits as listed in the Environmental Protection Plan submitted by the contractor.

8. The environmental resources within the project boundaries and those affected outside the limits of permanent work under this contract would be protected during the entire period of this contract. The contractor would confine his activities to areas defined by the drawings and specifications.

9. As stated in the standard contract specifications, the disposal of hazardous or solid wastes would be in compliance with Federal, Commonwealth, and local laws. A spill prevention plan would also be required.

4.20 COMPLIANCE WITH ENVIRONMENTAL REQUIREMENTS

4.20.1 NATIONAL ENVIRONMENTAL POLICY ACT OF 1969 (42 U.S.C. § 4321 TO §4335)

Environmental information on the project was compiled and this draft EA was prepared and notification will be provided to the public. Comments received will be incorporated

into this document. The project is in compliance with the National Environmental Policy Act, 42 U.S.C. § 4321 to §4335 (Public Law 91-90).

4.20.2 ENDANGERED SPECIES ACT OF 1973 (16 U.S.C. §1531 TO §1544)

The project is being coordinated under the Endangered Species Act, 16 U.S.C. §1531 to §1544 (Public Law 93-205). The Corps has determined that the proposed dredging with ODMDS placement may affect, but is not likely to adversely affect sea turtles, manatees, whales, sharks, grouper or corals or adversely modify Acroporid coral DCH.

4.20.3 FISH AND WILDLIFE COORDINATION ACT OF 1958, AS AMENDED (16 U.S.C. §661 TO §666B)

This project will be coordinated with the USFWS. A Coordination Act Report is not required for the proposed work. This project is in full compliance with the Act, 16 U.S.C. §661 to §666B

4.20.4 NATIONAL HISTORIC PRESERVATION ACT OF 1966 (16 U.S.C. §461 TO §470X-6)

The proposed action is in compliance with Section 106 of the National Historic Preservation Act, as amended (PL89-665). As part of the requirements and consultation process contained within the National Historic Preservation Act implementing regulations of 36 CFR 800, this project is also in compliance through ongoing consultation with the Archaeological and Historic Preservation Act, as amended, Executive Order 11593, 13007, and 13175, the Presidential Memo of 1994 on Government to Government Relations and appropriate Florida Statutes. Consultation with the Puerto Rico SHPO was initiated by letter dated 4 April 2019 and is ongoing. The proposed action will be in compliance with the goals of this Act upon completion of coordination as stated above.

4.20.5 CLEAN WATER ACT OF 1972 (33 USC §1251 ET SEQ.)

The project shall be constructed in compliance with the Section 401 water quality certification issued by the Puerto Rico EQB. All Commonwealth water quality standards would be met. A public notice will be issued in a manner which satisfies the requirements of Section 404 of the Clean Water Act.

4.20.6 CLEAN AIR ACT OF 1972 (42 U.S.C. §7401 TO §7671Q)

Vehicular emission and airborne dust particulates resulting from construction activities shall be de minimis. This project is being coordinated with EPA and is in compliance with Section 309 of the Act, 42 U.S.C. §7609).

4.20.7 COASTAL ZONE MANAGEMENT ACT OF 1972 (16 U.S.C. §1451 TO §1466)

Commonwealth consistency review was performed during the coordination of the WQC. The project is consistent with the Puerto Rico Coastal Management Program.

4.20.8 FARMLAND PROTECTION POLICY ACT OF 1981 (7 U.S.C. 4201, ET SEQ.)

No prime or unique farmland would be impacted by the proposed project. Therefore, this Act is not applicable to the project.

4.20.9 WILD AND SCENIC RIVER ACT OF 1968 (16 U.S.C. §1271 TO §1287)

No designated Wild and Scenic river reaches would be affected by project related activities. This Act is not applicable to the project.

4.20.10 MARINE MAMMAL PROTECTION ACT OF 1972 (16 U.S.C. §1361 TO §1423H)

Protective measures for marine mammals such as manatees, dolphins, and whales shall be implemented. This project will be coordinated with the USFWS and NMFS. The project is in full compliance with the Act.

4.20.11 ESTUARY PROTECTION ACT OF 1968 (16 U.S.C. §1221 TO §1226)

The protective measures described in Section 4 would insure avoidance and minimization of impacts to Mayagüez bay from the proposed dredging. This project is in compliance with this Act.

4.20.12 FEDERAL WATER PROJECT RECREATION ACT (16 U.S.C 460(L)(12)-460(L)(21)

The principles of the Federal Water Project Recreation Act, (Public Law 89-72) as amended, are not applicable to this project.

4.20.13 SUBMERGED LANDS ACT OF 1953 (43 U.S.C. §1301 TO §1356A)

The project would occur on submerged lands of Puerto Rico. The project will be coordinated with the Commonwealth and is in compliance with the Act.

4.20.14 COASTAL BARRIER RESOURCES ACT AND COASTAL BARRIER IMPROVEMENT ACT OF 1990 (16 U.S.C. §3501 TO §3510)

The action area is sufficiently far north (approximately 3 miles) of Unit PR-72 that the project is not anticipated to have any effect on the CBRS unit. Coordination with the USFWS is ongoing.

4.20.15 RIVERS AND HARBORS ACT OF 1899, AS AMENDED (33 U.S.C. §400 TO §467N)

The proposed work could temporarily obstruct navigable waters of the United States. The proposed action will be subjected to the public notice and other evaluations normally conducted for activities subject to the Act. The project is in compliance.

4.20.16 ANADROMOUS FISH CONSERVATION ACT (16 U.S.C. §757A TO §757F)

Anadromous fish species would not be affected. The project will be coordinated with the NMFS and is in compliance with the Act.

4.20.17 MIGRATORY BIRD TREATY ACT AND MIGRATORY BIRD CONSERVATION ACT (16 U.S.C. §703 TO §715S)

Measures shall be taken to protect migratory birds, i.e. avoiding nesting sites. The project is in compliance with these Act.

4.20.18 MARINE PROTECTION, RESEARCH AND SANCTUARIES ACT (16 U.S.C. §1361 TO §1447F)

The Marine Protection, Research, and Sanctuaries Act (MPRSA), also referred to as the Ocean Dumping Act, generally prohibits transportation activities by U.S. agencies or U.S.-flagged vessels for the purpose of ocean dumping and dumping of material transported from outside the United States into the U.S. territorial sea. The term "dumping" as defined in the Act, 33 U.S.C. 1402(f), does apply to the disposal of material within a designated Ocean Dredged Material Disposal Site. Concurrence from EPA under Section 103 of the Act is required along with updated testing of the material for suitability for ocean dumping. Updated testing is complete and upon receipt of the updated EPA concurrence, the project will be in compliance with the act.

4.20.19 MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT (16 U.S.C. §1801 TO §1891D)

The Corps has determined that the project would not have a significant adverse impact on EFH or federally managed fish species occurring along the west-central coast of Puerto Rico. The proposed work will be coordinated with the NMFS. The project is in full compliance with the Act.

4.20.20 E.O. 11990, PROTECTION OF WETLANDS

There would be no impacts to wetlands by project activities. This project is in compliance with the goals of this Executive Order.

4.20.21 E.O. 11988, FLOOD PLAIN MANAGEMENT

This project would have no adverse impacts to flood plain management. The project is in compliance with this Executive Order.

4.20.22 E.O. 12898, ENVIRONMENTAL JUSTICE

The proposed action would not result in adverse human health or substantial environmental effects. The project would not impact "subsistence consumption of fish and wildlife". The project is in compliance with this Executive Order.

4.20.23 E.O. 13089, CORAL REEF PROTECTION

This project would be not likely to adversely impact those species, habitats, and other natural resources associated with coral reefs. The project is in compliance with this Executive Order.

4.20.24 E.O. 13112, INVASIVE SPECIES

This project would not introduce any invasive species. The project is in compliance with this Executive Order.

5 LIST OF PREPARERS

5.2 PREPARERS

Preparer	Discipline	Role
Paul DeMarco, U.S. Army Corps of Engineers	Biologist	Principal Author
Meredith Moreno, U.S. Army Corps of Engineers	Archaeologist	Cultural Resources

5.3 REVIEWERS

This draft Environmental Assessment was reviewed by the supervisory chain of the Environmental Branch and Planning Division, as well as the Construction-Operations Division, Project Management, and the Office of Counsel of the US Army Corps of Engineers, Jacksonville District.

6 PUBLIC INVOLVEMENT

6.2 SCOPING AND DRAFT EA

A Public Notice will be issued for this action. The draft EA and proposed Finding of No Significant Impact (FONSI) will be made available to the public. Comments received will be incorporated into this document.

6.3 AGENCY COORDINATION

Coordination will be conducted with appropriate agencies and described in this report. Agency coordination letters can be found in Appendix C.

6.4 LIST OF RECIPIENTS

Per the Public Notice, copies of the draft EA and proposed FONSI will be made available to appropriate stakeholders. A list of stakeholders receiving notification can be found within the Public Notice in Appendix C.

6.5 COMMENTS RECEIVED AND RESPONSE

Comments received on the draft EA will be summarized below. All comment letters received can be found in Appendix C.

REFERENCES

Atkins, 2011. Puerto Rico Synoptic Aerial Survey Results of the September 1st through 3rd, 2011 Census. Prepared for U.S. Fish and Wildlife Service, Caribbean Ecological Services Center, San Juan, Puerto Rico.

Dow, Wendy, Karen Eckert, Michael Palmer and Philip Kramer, 2007. An Atlas of Sea Turtle Nesting Habitat for the Wider Caribbean Region. The Wider Caribbean Sea Turtle Conservation Network and The Nature Conservancy. WIDECAST Technical Report No. 6. Beaufort, North Carolina. 267 pages, plus electronic Appendices. Revision Date August 2008. Accessed March 2009. Available online at http://sero.nmfs.noaa.gov/hcd/pdfs/efhdocs/sa_guide_2008.pdf

Griffith, D., M. Valdés Pizzini and C. García Quijano., 2007. Entangled Communities: Socioeconomic Profiles of Fishers, their Communities, and their Responses to Marine Protective Measures in Puerto Rico. NOAA Series on U.S. Caribbean Fishing Communities. NOAA Technical Memorandum NMFS-SEFSC-556, 524 p. Agar, J. J. and B. Stoffle (editors).

Morelock, J., W.R. Ramirez, A.W. Bruckner, M. Carlo. 2000. Status of coral reefs southwest Puerto Rico. www.uprm.edu\biology\cjs\reefstatus.html

National Oceanic and Atmospheric Administration (NOAA). South Atlantic Region (SAR), 2008. National Marine Fisheries Service Habitat Conservation Division; Southeast Regional Office. St. Petersburg, Florida. Essential Fish Habitat: A Marine Fish Habitat Conservation Mandate for Federal Agencies.

NOAA 2008. Habitat Mapping of the West Coast Shelf of Puerto Rico: Results of the Analysis of Existent Sonar Imagery. Hato Rey, Puerto Rico.

Wikipedia, 2019. https://en.wikipedia.org/wiki/Port_of_Mayag%C3%BCez

INDEX

APPENDIX A - PERTINENT CORRESPONDENCE

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207-8915

Planning and Policy Division
Environmental Branch

JUNE 1 2019

To Whom It May Concern:

Pursuant to the National Environmental Policy Act and U.S. Army Corps of Engineers (Corps) Regulation (33 CFR 230.11 and 40 CFR 1501.4(e)1), this letter constitutes the Notice of Availability of the proposed Finding of No Significant Impact (FONSI) for the Operations and Maintenance Dredging of the Mayagüez Harbor Federal Navigation project. This project is located in Mayagüez, Puerto Rico. Enclosed is the proposed FONSI and project map.

The FONSI (attached) is also available on the Corps, Jacksonville District website at http://www.saj.usace.army.mil/About/DivisionsOffices/Planning/EnvironmentalBranch/EnvironmentalDocuments.aspx. Comments are welcome within 21 days from the date of this letter and should be addressed to the letterhead address, to the attention of the Planning Division, Environmental Branch, Coastal Section. If you have any questions or comments, please contact Mr. Paul DeMarco by telephone at 904-232-1897, or by email at Paul.M.DeMarco@usace.army.mil.

Sincerely,

Angela E. Dunn
Chief, Environmental Branch

Enclosure

US Army Corps of Engineers
JACKSONVILLE DISTRICT

PROPOSED FINDING OF NO SIGNIFICANT IMPACT

MAINTENANCE DREDGING OF MAYAGÜEZ HARBOR
MAYAGÜEZ, PUERTO RICO

The U.S. Army Corps of Engineers, Jacksonville District (Corps), has conducted an environmental assessment (EA) in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended, under the Authority of the River and Harbor Act of 1935 to assess the effects of periodic maintenance dredging of Mayagüez Harbor, in Mayagüez, Puerto Rico. The Federal Channel reaches 1&2 would be maintained and the dredged material would be placed in the Environmental Protection Agency (EPA) designated ocean dredged material disposal site (ODMDS) located 6.9 miles west of the harbor in water depths ranging between 1,151 to 1,259 feet (351 to 384 meters). Additional information on the alternatives analysis performed to designate the ODMDS, as well as an analysis of the effects of offshore disposal, is contained in the 1988 Environmental Impact Statement (EPA 1988). Therefore, per 40 CFR 1506.4 this proposed Finding of No Significant Impact (FONSI) incorporates by reference all discussions, consultations, effects determinations, and conclusions contained in the EPA EIS.

The recommended plan consists of the following:

- Periodic maintenance dredging to remove approximately 100,000 cubic yards of sand, silt and clay every 10-12 years
- Placing the material in the EPA designated ODMDS

All practicable means to avoid and minimize adverse environmental effects have been explored. Environmental commitments as detailed in the EA will be implemented to minimize impacts.

Pursuant to the Clean Water Act of 1972, 33 USC §1251 et seq., as amended, any discharge of dredged or fill material associated with the proposed placement of dredged material in the ODMDS have been found to be compliant with section 404(b)(1) Guidelines (40 CFR 230).

The Commonwealth of Puerto Rico concurred that the proposed action is consistent with the enforceable policies of the Puerto Rico Coastal Management Program through issuance of water quality certification PN-MH-86 (AG/HA/mc).
The referenced water quality certification, pursuant to Section 401 of the Clean Water Act, includes maintenance dredging of the harbor with placement in the ODMDS.
All conditions of the water quality certification will be implemented in order to comply with Commonwealth water quality standards.

Pursuant to section 7 of the Endangered Species Act (ESA) of 1973, 16 U.S.C. §1531 et seq as amended, consultation with the U.S. Fish and Wildlife Service (USFWS) for project related effect to the threatened Antillean manatee is ongoing. The Corps' has determined that the proposed action may affect, but would be not likely to adversely affect, the manatee. In addition, the Corps initiated informal consultation with National Marine Fisheries Service (NMFS) under the ESA for the effects of dredging the Federal channel via letter dated 4 April 2019 and consultation is ongoing. However, the Corps' South Atlantic Division is working with NMFS to revise the South Atlantic Regional Biological Opinion (SARBO). The current proposal consults on maintenance dredging and coastal operations in Puerto Rico. The Corps will rely on the updated SARBO for future maintenance dredging once ratified.

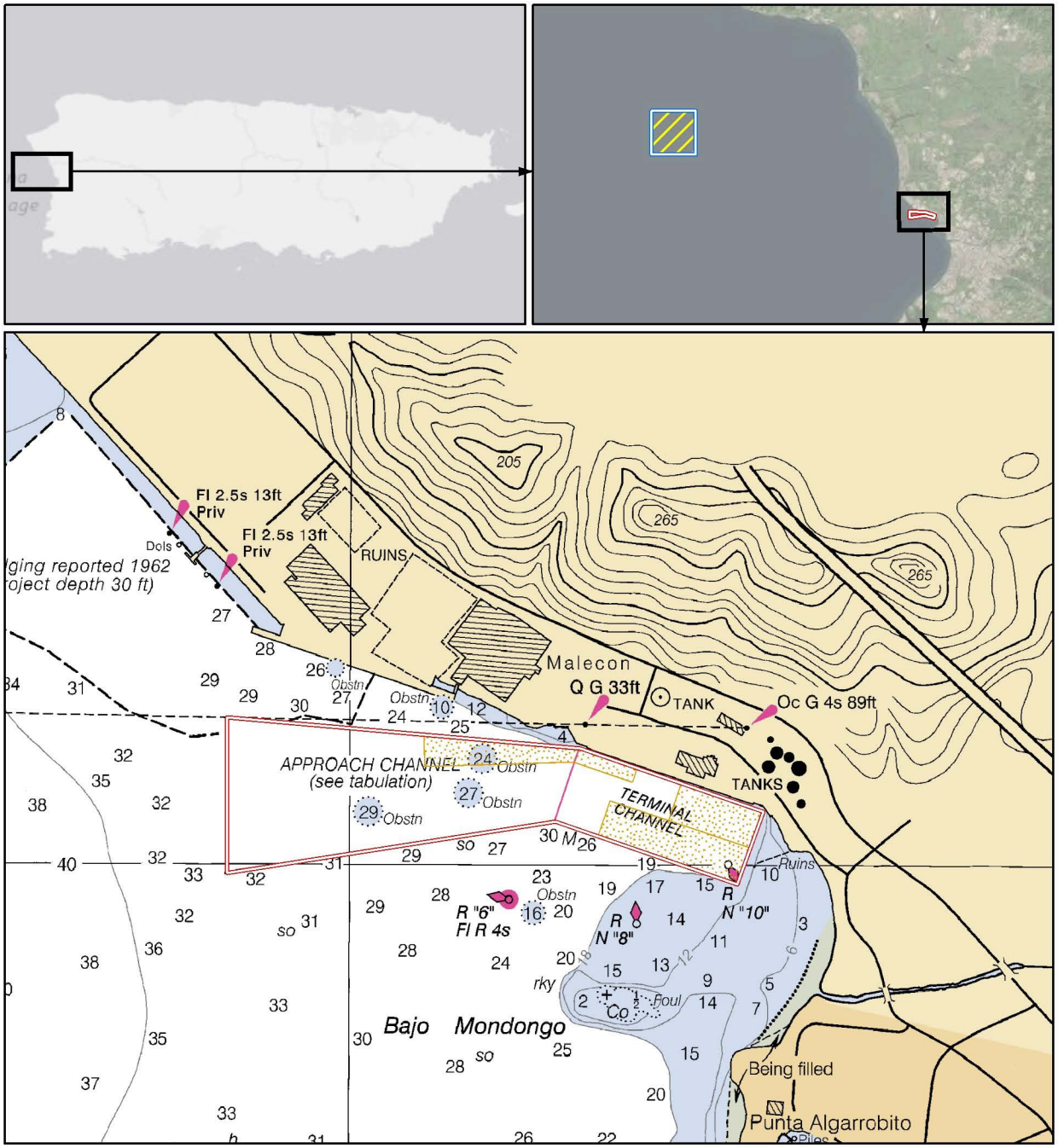
Pursuant to Section 106 of the National Historic Preservation Act of 1966, 16 U.S.C. §461 to §470x-6, as amended, consultation was initiated by letter dated 4 April 2019 with the Puerto Rico State Historic Preservation Officer (SHPO) in accordance with the National Historic Preservation Act and considerations given under the NEPA. Based on the absence of cultural resources and the recurrent nature of the project, the Corps has determined that periodic operations and maintenance dredging of Mayagüez Harbor with placement of dredged material within the ODMDS would have no effect to historic properties eligible for inclusion in the National Register of Historic Properties. Consultation will be concluded prior to finalization of the environmental assessment.

In view of the above, and the referenced EIS, and after consideration of the public and agency comments received during the public coordination of the EA, I conclude that the recommended plan, dredging of Mayagüez Harbor with placement of dredged material in the ODMDS, would not result in a significant effect on the human environment and therefore, does not require an updated Environmental Impact Statement. This Proposed Finding of No Significant Impact incorporates by reference all discussions and conclusions contained in the EA enclosed herewith.

A copy of the document will be made available to the public under the Puerto Rico tab on the following website: http://www.saj.usace.army.mil/About/DivisionsOffices/Planning/EnvironmentalBranch/EnvironmentalDocuments.aspx. Expand the Puerto Rico tab, then open "Draft Environmental Assessment Maintenance Dredging Mayagüez Harbor Mayagüez, Puerto Rico".

_____ _____

Andrew D. Kelly Jr. Date
Colonel, U.S. Army
District Commander



US Army Corps of Engineers ®
Jacksonville District

Mayagüez Harbor
Dredge Area, Harbor, and ODMDS
Public Notice of Proposed FONSI

Mayagüez Municipality
Puerto Rico

Mayagüez Harbor
Dredge Plan
Mayagüez ODMDS

N

0 400 Meters