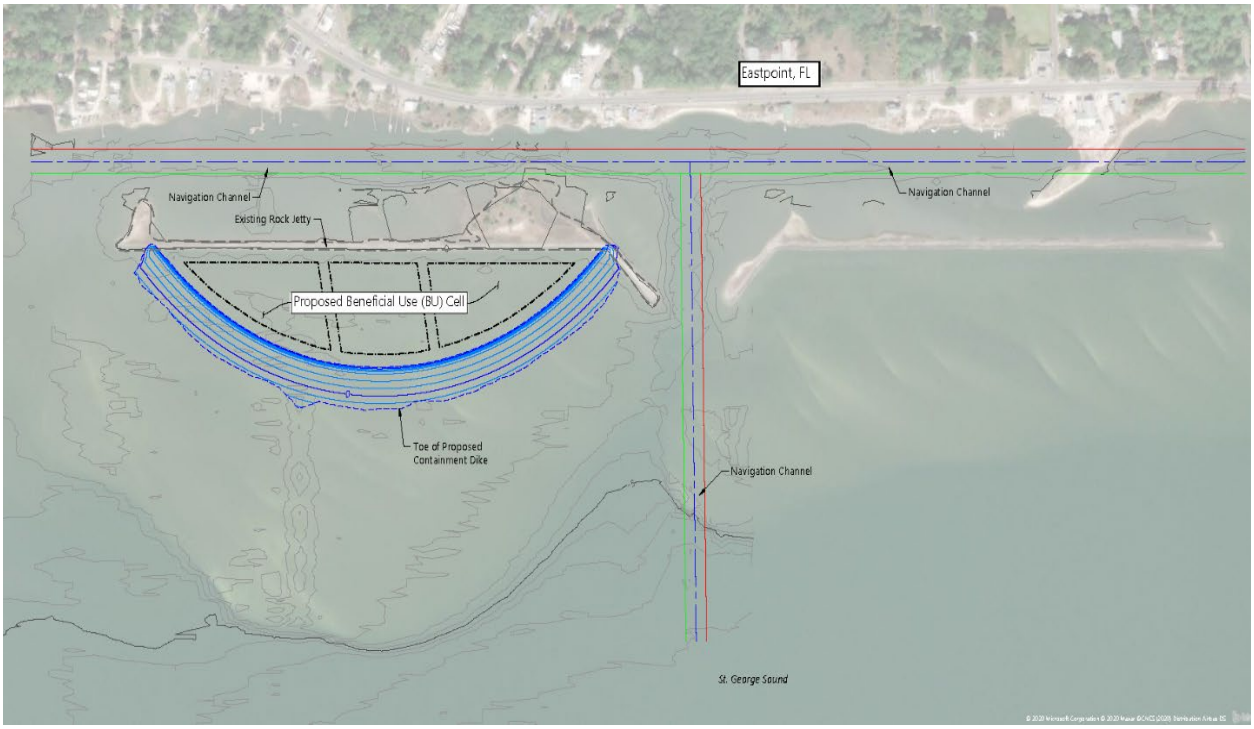
ENVIRONMENTAL ASSESSMENT

Eastpoint Federal Navigation Project

Eastpoint, Franklin County, Florida



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Acronyms and Abbreviations

ACF	Apalachicola-Chattahoochee-Flint
APE	Area of Potential Effect
BU	Beneficial Use
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Register
DACS	Department of Agriculture and Consumer Services
EA	Environmental Assessment
EIS	Environmental Impact Statement
EFH	Essential Fish Habitat
EO	Executive Order
F	Fahrenheit
FDEP	Florida Department of Environmental Protection
MLLW	Mean Lower Low Water
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NERR	National Estuarine Research Reserve
NHPA	National Historical Preservation Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic Atmospheric Administration
NRHP	National Register of Historic Places
PAH	Polynuclear Aromatic Hydrocarbons
Ppt	Parts Per Thousand
PRD	Protected Resource Division
SAV	Submerged Aquatic Vegetation
SHPO	State Historic Preservation Officer
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
WADs	Wave Attenuation Device
WQC	Water Quality Criteria

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1 INTRODUCTION

This Environmental Assessment (EA) addresses the potential impacts that could result from the maintenance dredging activities at the Federally authorized Eastpoint Channel, and the placement of dredged material in open water to create a containment cell. The Eastpoint Channel is a small navigation project located within the St. George Sound of Apalachicola Bay, Florida. The channel is offshore to the town of Eastpoint, a fishing community located approximately 6 miles east of Apalachicola.

The purpose of this EA is to determine whether the proposed action has the potential for creating significant impacts to the environment and would thereby warrant a more detailed study on possible impacts, mitigation, and alternative courses of action. The Eastpoint Channel was last maintained by the U.S. Army Corps of Engineers (USACE) in 1984.

1.1 Federal Authorization

This project was federally authorized by the Rivers and Harbors Act of September 3, 1954. It consists of a channel parallel to shore at Eastpoint, Florida that is 6 feet deep, 100 feet wide and approximately 6,000 feet long, with a connecting channel 6 feet deep and 100 feet wide.

1.2 Environmental Impact Assessment and Prior Studies History

In 1974, a draft Environmental Impact Statement (EIS) was prepared for the installation of the two breakwater sites located adjacent to the Eastpoint channel and was circulated for comments to Federal, State, local agencies, citizens groups, and interested parties. Additionally, a Draft Detailed Project Report and EIS were circulated in the spring of 1978 and a public meeting was held in Apalachicola, Florida in June of 1978. During the agency coordination review, state and federal environmental agencies raised several questions concerning the tentatively selected plan which consisted of constructing a breakwater, relocating a part of the existing channel, and creating a marsh. As a result of the coordination, the plan was modified by eliminating the channel relocation and the marsh creation features of the plan.

In the early 1980's, USACE completed the following efforts: 1) economic study showing the benefits, costs, and justification for the project, 2) water quality survey, 3) modeling study, and 4) a disposal capacity study. Additionally, USACE completed a Draft EIS and Section 404 (b)(1) evaluation report in 1982. In 1983, a *Detailed Project Report, Environmental Impact Statement on the Breakwater at Eastpoint, Florida, and a Water Quality Certification* were approved and signed (USACE, May 1983). The breakwater construction was completed in the fall of 1984. During this dredging event, the material was placed in an upland disposal area on the county's property. Currently, a public

school is located on the property; therefore, the area is not available for upland disposal.

2 NATIONAL ENVIRONMENTAL POLICY ACT CONSIDERATIONS

This EA has been prepared in accordance with the National Environmental Policy Act (NEPA). The NEPA and Title 40 of the Code of Federal Regulations (CFR), Parts 1500-1508; 1515-1518 (40 CFR 1500-1508; 1515-1518) require Federal agencies to consider the potential environmental consequences of proposed actions and alternatives. The Council on Environmental Quality (CEQ) published its Final Rule: Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA) in the Federal Register July 16, 2020. The new CEQ NEPA Regulations went into effect September 14, 2020. Preparation of this EA commenced prior to enactment of the new NEPA regulations. USACE may only apply the prior CEQ NEPA regulations from 1978, as well as relevant USACE regulations and guidance, to such pending reviews. As such, this EA has been prepared in accordance with the NEPA and the CEQ 1978 regulations.

3 PURPOSE AND NEED FOR THE PROPOSED ACTION

The purpose of the proposed action is to maintain the federally authorized depth of Eastpoint Channel in order to facilitate navigation (Figure 1). The channel has not been maintained because Federal funds have been very limited. The lack of maintenance has resulted in the channel shoaling which has hindered access. The depth of the channel is currently less than three feet in some sections, which does not provide an adequate depth for safe navigation. Federal funds have been secured for this navigation channel to restore the channel to its authorized depths. Essentially maintenance dredging would provide for the removal of shoals in the channel and is essential for its continued use.

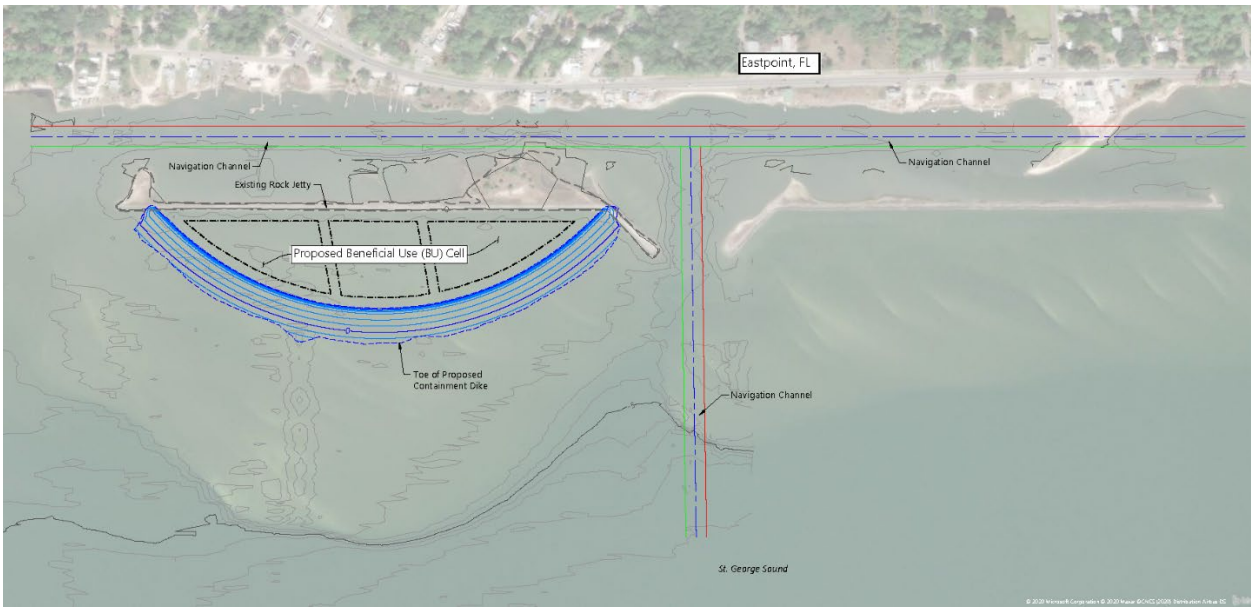


Figure 1: *Aerial Vicinity Map and Apalachicola Bay*

3.1 Project Area History

The seafood industry expanded in Eastpoint after the construction of the John Gorrie Bridge in 1935, which provided access to a seafood market outside the local community. After the end of the World War II, the community of Eastpoint began advocating for the dredging of a channel to their waterfront. This waterfront contained numerous seafood processing houses that were built over the water to obtain the days catch but could only operate effectively during high tide. With the assistance of Congressman Bob Sikes, a public meeting was held by USACE in Apalachicola, Florida to evaluate the requested navigational feature.

In 1951, Congress recommended the modification of the existing project to provide a channel 6 feet deep, 100 feet wide and about 6,000 feet long in Eastpoint, Florida. In 1954, Congress authorized USACE to dredge a channel along the Eastpoint waterfront for the benefit of the fishing community. In September of 1954, construction began, and the channel was dredged. The dredged material was placed on the open bay side of the channel creating two sand bars, each 2,000 feet long. This sand berm provided some protection against the rough water of the open bay. The project was completed in October 1954. From the late 1950's through the 1980's, the channel was fully functional with over 400 oyster boats calling Eastpoint their home port.

Shrimp boats as large as 56 feet would unload their catch to dealers located all along the waterfront. Eastpoint had a thriving seafood economy with oyster and shrimp houses in the harbor. Today, only five of the fifteen seafood houses remain on the waterfront and most of the oysters harvested are brought in by truck for processing. Currently, the channel is too shallow for boats to unload their catch.

The USACE conducted maintenance dredging of the channel in 1984. During the late summer and early fall of 1984, USACE constructed a 5,300-foot long rubble breakwater about 500 feet offshore to protect Eastpoint Harbor, its fishing fleet, and waterfront

seafood processing facilities from wave damage caused by strong southerly winds. In 2003, Congress appropriated funding for Eastpoint maintenance dredging; however, dredging was not completed due to Hurricane Katrina. In the wake of Hurricane Katrina, funds were redirected. USACE planned to reinstate those funds for Eastpoint's dredging project; however, after Hurricane Katrina, Congress passed a bill prohibiting the reallocation of funds. Therefore, maintenance dredging to the channel nor improvements to the existing breakwater have not been conducted since 1984.

4 PROJECT DESCRIPTION

The proposed action consists of performing routine operation and maintenance dredging of the Eastpoint Federal Navigation Channel to maintain the authorized channel to a depth of 6 feet plus 2 feet of advanced maintenance and 2 feet allowable over depth for a total of -10 feet mean lower low water (MLLW). The navigation channel is 100 feet wide and approximately 6,000 feet long, with a connecting channel 6 feet deep and 100 feet wide. The placement consists of approximately 245,000 cubic yards of silts and clayey dredged material from the navigation channel in open-water to create a 26-acre beneficial use (BU) "containment cell" site into St. George Sound. The dredged material would be used as a beneficial use opportunity site for Franklin County, the local non-Federal sponsor, to provide an opportunity for marsh vegetation establishment via natural colonization. This area could also be a future placement for potential operations and maintenance of the Federal navigation channel, if there is sufficient capacity.

Approximately 65,500 cubic yards of medium to fine grained sand material will be excavated from within the BU site to construct the containment dikes. The elevation of the containment dikes will be approximately +3 feet MLLW, the crown width will be approximately 10 feet wide and have a 4H:1V slope to the interior and 30H:1V slope to the exterior of the site. The BU site will be approximately 2,500 feet long and between 500 and 600 feet wide (Figure 2). The berm materials will be excavated from borrow areas within the interior of the BU cell either mechanically or using a small hydraulic cutterhead dredge and a marsh excavator will be used to shape the berm into the initial configuration. Based on the geotechnical sampling and analyses conducted, the medium to fine-grained sand that makes up the site is suitable for berm creation without the use of non-native materials and will maintain the natural make-up of the existing shoreline. Characteristics of the berm design and construction sequence includes, 18 acres of the BU cell, 8.0 acres of the berm, and an initial crest width of 60 to 80 feet. The crest will naturally flatten by the predominate waves to a base width of 120 to 150 feet and a final 10-foot wide crest. The crest width will be maintained during marsh fill placement and weirs will be placed within the berm to accommodate dewatering of the dredged material. No temporary flotation channels will be dredged to facilitate construction of the berm. The wave climate of the site will naturally degrade the containment berm after completion of the dredging, pushing the upper sands into the marsh fill. The final marsh platform will fall within the 0.0 to 1.0 ft MLLW elevation range that matches existing coastal marshes east and west of the site. The marsh area will encompass a thin beach along the seaward edge.

The project will be conducted within St. George Sound, a Class II Outstanding Florida Waterbody, Prohibited and Restricted for Shellfish Harvesting.

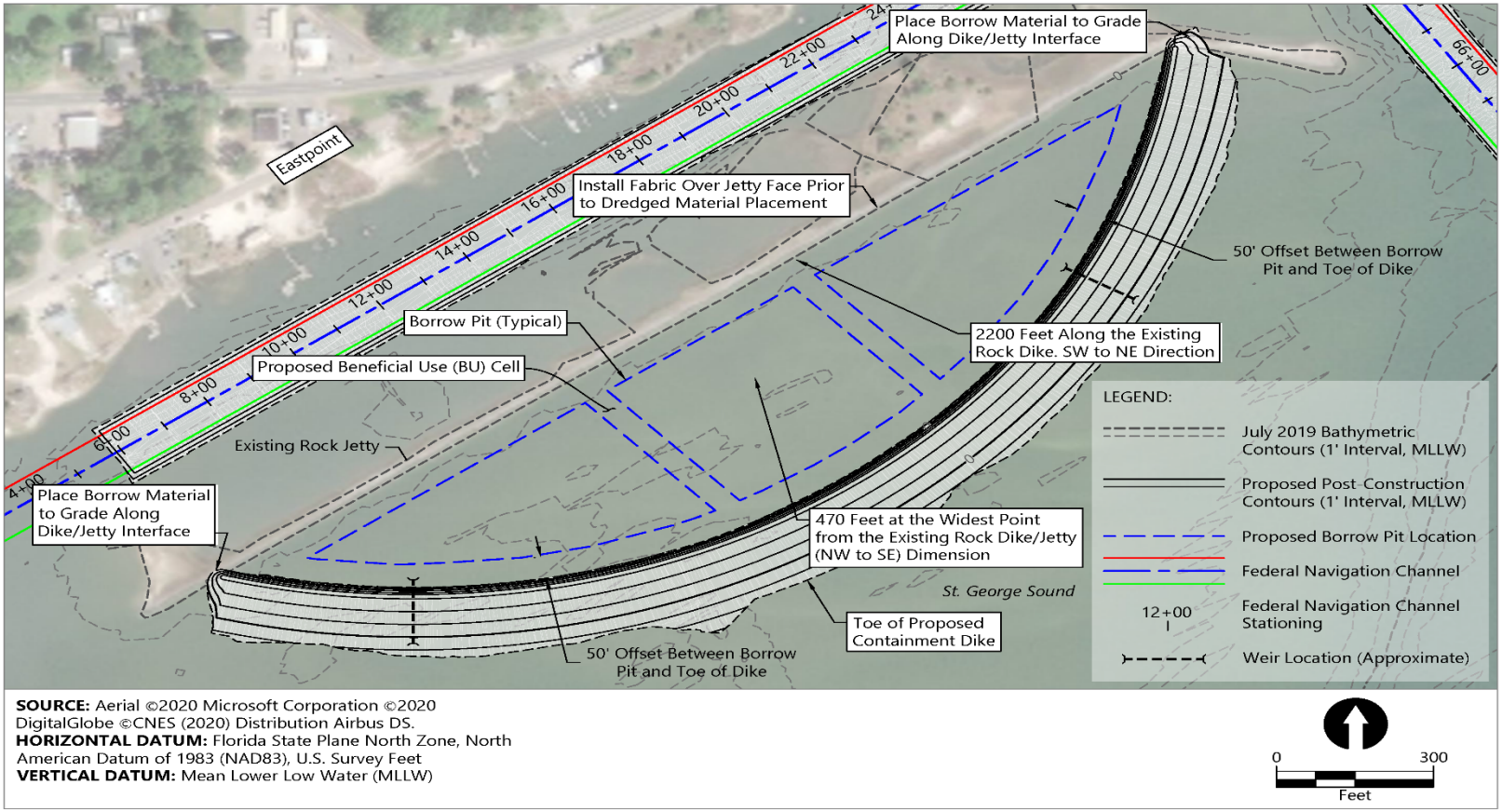


Exhibit 1
Containment Dike Plan View
East Point Beneficial Use Design
United States Army Corps of Engineers, Mobile District

Figure 2: Containment Dike

5 ALTERNATIVE TO THE PROPOSED ACTION

5.1 No Action Alternative

NEPA defines a No Action as the continuation of existing conditions in the affected environment without the implementation, or in the absence of the proposed action. Inclusion of the No Action alternative is prescribed by the CEQ regulations as the benchmark against which Federal actions are to be evaluated. The implementation of the No Action alternative would result in discontinuing project maintenance dredging to depths of -10 feet MLLW (this depth includes 2 feet of advanced maintenance and 2 feet of allowable over depth dredging). This alternative would result in a waterway that would eventually fill with sediments and become unsafe and non-navigable for commercial and recreational boats. Shoaling would develop at various times and places. This would forego the benefits of the channel by eliminating a major link connecting the oyster beds to the seafood houses. Project abandonment would place an economic stress on the local community and commercial investments already dependent on the project.

Alternatives Considered: Three alternatives were considered for placement of dredged material in addition to a screen-out upland placement site. Early in the analysis, the upland site was eliminated from further consideration because a school had been constructed at that area.

Alternative 1- Alternative 1 as described in the proposed action, would provide for marsh creation at the lowest cost per unit area therefore, providing a considerable savings to the project during construction. Thus, this is the selected preferred alternative.

Alternative 2- Alternative 2 is similar to Alternative 1 with the addition of a stone armor layer to protect the sand core that makes up the bulk of the containment berm. The armor layer will be placed on the crest and bay-facing slope of the containment berm to provide protection from wave action. The proposed berm with a crest width of 10 feet, a base width of 60 to 80 feet, and a structure height of 4.0 to 5.0 feet is designed to contain the required amount of Federal Navigation Channel material and establish marsh vegetation in the placement cell. The BU cell and berm acreage combined is approximately 26 acres; therefore, has a slightly larger footprint than Alternative 1. In comparison to Alternative 1, Alternative 2 will require less sand material to be excavated from the interior of the BU cell because of the protective armor layer, which allows the bay-facing slope of the berm to be constructed on a steeper slope to reduce erosional losses of the berm. Stone armor layer would provide additional berm protection; however, it will add an increased cost for purchase, transport, placement as well as maintenance due to any storm event. Therefore, this alternative was not selected and is not further considered.

Alternative 3- Alternative 3 consists of a sand berm similar to Alternative 1 with the addition of wave attenuation devices (WADs) surrounding the sand berm to provide shoreline protection. The sand berm will contain the dredged material from the Federal Navigation Channel, and the WADs will provide wave attenuation from the bay. The

WADs consist of geometric structures made with concrete to encourage shellfish attachment and growth. With protection from the bay, the Alternative 3 sand berm bay-facing slope of 10H:1V could be much steeper than the bay-facing slope of 30H:1V for Alternative 1 and would be the same for Alternative 2. This would reduce the overall footprint of the berms. Additionally, to provide protection from the bay, the WADs structure would need to be built to at least at +2 or +3 feet MLLW, which would require a structure at least 5 feet in height. This would add substantial weight to the substrate and would likely require placing geotextile to mitigate settlement of the structure. These structures would provide habitat in addition to the creation of marshes within the BU cell by creating reef-like structures for shellfish to attach and would also attract fish and other aquatic species. However, WADs will add increased cost for purchase, transport, and placement for a relatively small volume of dredged material. Therefore, this alternative was not selected and is not further considered.

5.2 Preferred Alternative

The preferred alternative is Alternative 1 and is described in the proposed action and above.

6 GENERAL SETTING

6.1 Climate

The project area is located in a humid subtropical climate region, characterized by temperate winters, warm summers, and rainfall that is fairly evenly distributed throughout the year. Prevailing southerly winds provide moisture for high humidity from May through September. Annual temperatures range from 40° to 90° Fahrenheit (F), with a normal mean annual temperature of 68°F along the coast. Normal precipitation ranges from about 50 to 60 inches per year. Of this, 30 inches or 53 percent falls in the summer rainy season from June through September. About 30 percent falls in the winter rainy season from late December through April. May, October, and November are normally the driest months (National Resource Conservation Service, 1994).

6.2 Topography, Geology, and Soils

The project lies entirely in the Gulf coastal lowlands physiographic province, and is characterized by low energy barrier islands, beaches, saltwater marshes and dunes, which surround numerous small creek drainages, alluvial rivers, bays and sounds. All of the streams in the project vicinity empty into Apalachicola Bay or St. George Sound.

The Florida Panhandle is comprised of a relatively flat terrain, ranging in elevation from 0 to about 50 feet above mean sea level. The entire Apalachicola coast is thought to have been developed by the Apalachicola River during the late Tertiary and Quaternary periods and has been modified by waves and longshore drift. According to Zeh (1980), the present barrier island chain formation, including St. George Island, is estimated to have occurred approximately 5,000 years ago. St. George Island is built up of older beach dune ridges and old dune fields that date from approximately 3,000 to 6,000 years before the present. The sediments consist entirely of quartz sands that are

believed to rest upon an eroded Pleistocene or Miocene surface. These sands were originally derived from source areas in the Appalachian Piedmont. The principle sediment type found on the island is fine to medium grained sand. For the project area, the sediments that make up the BU cell footprint were approximately 90% medium to fine-grained sands with a D_{50} of 0.26 mm (Mears, 2019). The water depth in the BU site varies from -0.5 to -2.5 feet MLLW.

6.3 Hydrology Water Resources

There is an abundant supply of both surface and groundwater along the coastline of the Florida panhandle. The project is located within the Apalachicola Bay and River with two major groundwater systems located in the general vicinity, the Surficial and the Floridan Aquifer System. The Surficial Aquifer System is composed on quartz, clayey sand, and clay which is primarily fed by rainwater. The Floridian system is composed of limestone and provides 90 percent of the public and private water needs of the lower basin.

The Apalachicola Bay and River watershed is the lower extent of the Apalachicola-Chattahoochee-Flint (ACF) rivers basin, which covers over 20,000 square miles of Georgia, Alabama, and Florida. Within this basin, the watershed encompasses about 2,850 square miles of northwest Florida.

The Apalachicola Bay water depths range from -6 to -9 feet at MLLW. The major freshwater inflow to the bay is the Apalachicola River which has an average flow rate of 26,380 cubic feet per second. Headwaters for this alluvial river system originate in the Blue Ridge physiographic province (NOAA, 1997).

7 AFFECTED ENVIRONMENT

7.1 Sediment Quality

Geotechnical sampling of the BU site and Federal navigation channel was conducted by USACE between June 24 and 27, 2019 to determine the physical characteristics of the sediments. Ten cores and 19 surface grab samples were collected from the BU site, and 5 cores and 11 surface grab samples were collected from the navigation channel. The locations of core and grab samples were collected during the sampling event as displayed in Figure 3. Surface grab samples were collected in each area to an approximate depth of 1-foot. The sediments that make up the BU cell footprint were approximately 90% medium to fine-grained sands with a D_{50} of 0.26 mm, while the sediments comprising the navigation channel samples were mostly silts with some clayey material with high plasticity in the east and west channel segments. The entrance channel was predominately medium to fine sands with a D_{50} of 0.26 mm at the 8-foot MLLW contour and transitioning to silts and clays near the intersection with the east and west channel segments. The results of the geotechnical sampling event were as expected for the site.

The dredged materials regarding settlement and consolidation within the BU cell from the east and west channels were predominately high plasticity silts and clays with less

than 10% sand in any of the samples (Mears, 2019). Chemical testing was performed in 2005 on channel sediments via contract at the direction of USACE.

Total organic carbon ranged from 0.19-4.15%. Metals were found in at least trace amounts for all samples. Iron in sample EP-05-01 was found to exceed the water quality criteria (WQC) but was less than the amount found in the site water sample. (Figure 3)

Polynuclear Aromatic Hydrocarbons (PAH) were detected in some samples. No sample exceeded the WQC for any individual PAH, but the sum of PAH's in sample EP-05-01 did exceed the WQC. Trace amounts of pesticides were found in three samples in addition to the site water sample.

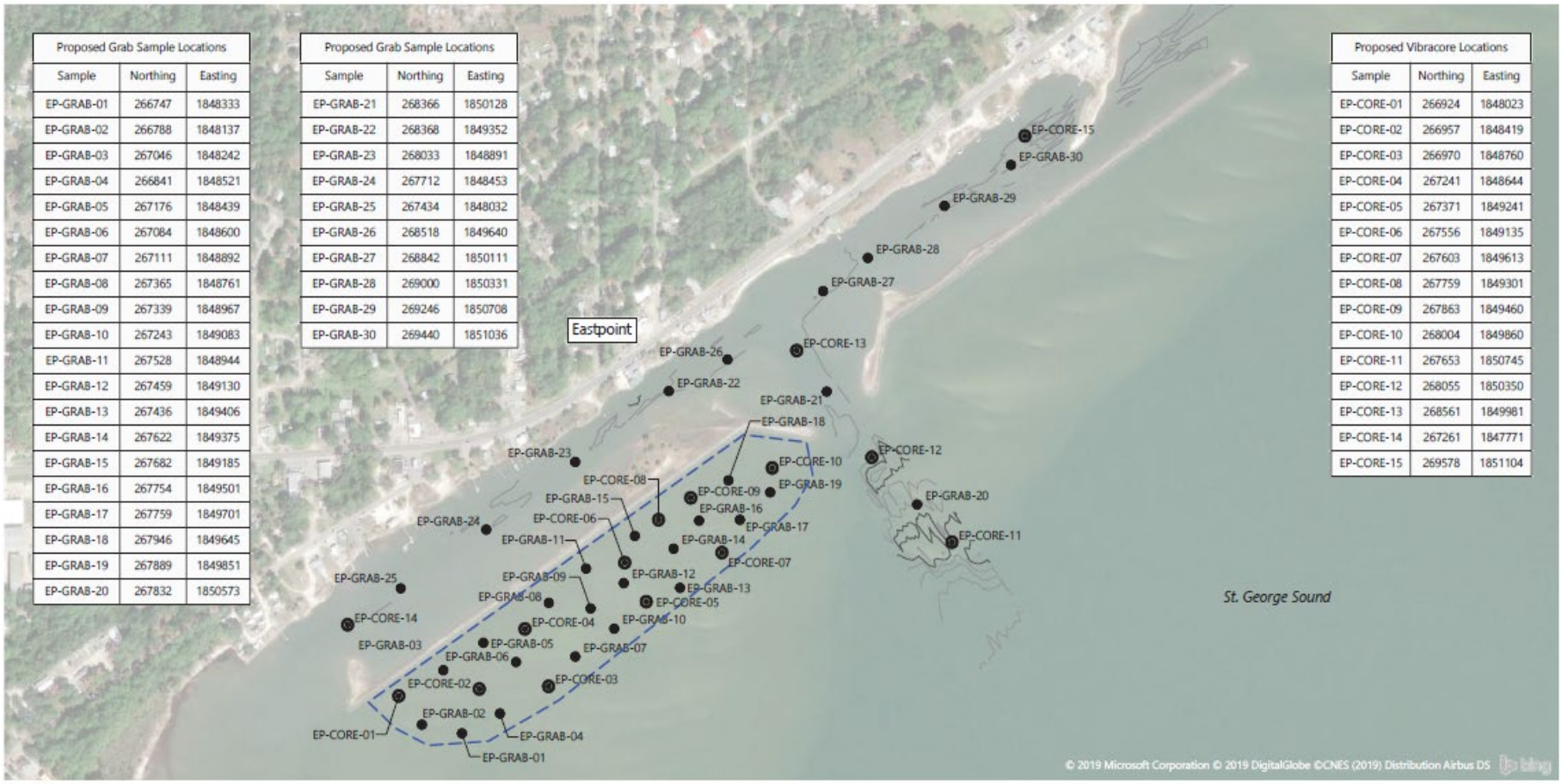
No Polychlorinated Biphenyls were detected in any sample. Three semi-volatile organic compounds were found, primarily in trace amounts. No semi-volatile organic compounds exceeded the WQC in any sample.

Florida Department of Environmental Protection (FDEP) also performed chemical testing of channel sediments in 2012. Three to six sediment cores were collected at predesignated locations within the Eastpoint Channel identified as Sites 1 through 6. The sediment core from Site # 4 was not collected due to the presence of deeper water (8.1 feet) that prevented the collection of the desired 10-foot long sediment core. In all, 16 sediment samples were collected from the five sediment cores and analyzed for low-level PAHs. Most PAH samples were reported as non-detect. Samples that were detectable were not considered exceedances. Therefore, sediments were found to be of acceptable quality for their intended use.

Proposed Grab Sample Locations		
Sample	Northing	Easting
EP-GRAB-01	266747	1848333
EP-GRAB-02	266788	1848137
EP-GRAB-03	267046	1848242
EP-GRAB-04	266841	1848521
EP-GRAB-05	267176	1848439
EP-GRAB-06	267084	1848600
EP-GRAB-07	267111	1848892
EP-GRAB-08	267365	1848761
EP-GRAB-09	267339	1848967
EP-GRAB-10	267243	1849083
EP-GRAB-11	267528	1848944
EP-GRAB-12	267459	1849130
EP-GRAB-13	267436	1849406
EP-GRAB-14	267622	1849375
EP-GRAB-15	267682	1849185
EP-GRAB-16	267754	1849501
EP-GRAB-17	267759	1849701
EP-GRAB-18	267946	1849645
EP-GRAB-19	267889	1849851
EP-GRAB-20	267832	1850573

Proposed Grab Sample Locations		
Sample	Northing	Easting
EP-GRAB-21	268366	1850128
EP-GRAB-22	268368	1849352
EP-GRAB-23	268033	1848891
EP-GRAB-24	267712	1848453
EP-GRAB-25	267434	1848032
EP-GRAB-26	268518	1849640
EP-GRAB-27	268842	1850111
EP-GRAB-28	269000	1850331
EP-GRAB-29	269246	1850708
EP-GRAB-30	269440	1851036

Proposed Vibracore Locations		
Sample	Northing	Easting
EP-CORE-01	266924	1848023
EP-CORE-02	266957	1848419
EP-CORE-03	266970	1848760
EP-CORE-04	267241	1848644
EP-CORE-05	267371	1849241
EP-CORE-06	267556	1849135
EP-CORE-07	267603	1849613
EP-CORE-08	267759	1849301
EP-CORE-09	267863	1849460
EP-CORE-10	268004	1849860
EP-CORE-11	267653	1850745
EP-CORE-12	268055	1850350
EP-CORE-13	268561	1849981
EP-CORE-14	267261	1847771
EP-CORE-15	269578	1851104



SOURCE: Hydrographic survey provided by United States Army Corps of Engineers (USACE) dated April 15, 2019. Aerial by Bing Imagery ©2019 Microsoft Corporation ©2019 DigitalGlobe ©CNESS (2019) Distribution Airbus (DS)
HORIZONTAL DATUM: Florida State Plane North Zone, North American Datum of 1983 (NAD83), U.S. Survey Feet
VERTICAL DATUM: Mean Lower Low Water (MLLW)

LEGEND:
- Bathymetric Contours (1' Interval)
- Proposed Beneficial Use (BU) Area
- Proposed Vibracore Location
- Proposed Grab Sample Location

0 500
Feet

Figure 3: *Sediment Sampling Locations*

7.2 Water Quality

The surface water within the limits of the project is generally classified as estuarine. The Bay receives freshwater from the Apalachicola River, which is Florida's largest river, and saltwater from the Gulf of Mexico. Salinity levels throughout most of the Apalachicola Bay are relatively low due to large river inflows. The circulation within the Apalachicola Bay estuary is wind and astronomical tide driven. River water entering the estuary mixes with Gulf of Mexico water and eventually flows through five inlets including the St. George Island Channel. Based on a review of the Three-Dimensional Modeling of Circulation and Salinity for the Low River Flow Season in Apalachicola Bay Report (Huang, 1997) and the salinity standards by National Oceanic Atmospheric Administration (NOAA), salinity levels in estuaries should range from 0.5 parts per thousand (ppt) to 35 ppt. The data, presented in the modeling study, establishes the highest salinity concentration in the Eastpoint area is 30 ppt. Therefore, salinity levels are in the required range with minor/insignificant effect to the water quality within the project area.

7.3 Air Quality

The Clean Air Act (CAA) requires the U.S. Environmental Protection Agency (USEPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. NAAQS include two types of air quality standards. Primary standards protect public health, including the health of sensitive populations, such as asthmatics, children, and the elderly. Secondary standards protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings. USEPA has established NAAQS for six principal pollutants, which are called "criteria pollutants." Criteria pollutants include carbon monoxide, lead, nitrogen dioxide, particulate matter, ozone, and sulfur dioxide. Areas that meet the air quality standard for the criteria pollutants are designated as being "in attainment." Areas that do not meet the air quality standard for one of the criteria pollutants may be subject to the formal rule-making process and designated as being "in non-attainment" for that standard.

Franklin County is in attainment with the NAAQS of the CAA. Therefore, the county is meeting air quality standards for all criteria pollutants.

Biological Resources

7.3.1 Wetlands

There are no wetlands located in the cell footprint of the project area. However, there are wetlands outside of the existing breakwater of the containment cell. The typical vegetation around Apalachicola Bay area is composed mainly of tall grass species, such as, *Spartina cynosuroides* (big cordgrass), *Spartina alterniflora* (smooth cordgrass), and *Juncus roemerianus* (black needlerush) (Livingston, 1974)

After the discharge of dredged material to the open-water containment BU cell, conditions would be favorable for additional marsh/wetland creation via natural colonization.

7.3.2 Aquatic Environment

7.3.2.1 Benthos, Motile Invertebrates, and Fishes

The estuaries and bays in the vicinity of Eastpoint provide habitat for several crustacean species, which include brown shrimp (*Penaeus aztecus*), pink shrimp (*P. Duorarum*), white shrimp (*P. setiferus*), marsh grass shrimp (*Palaemonetes pugio*), and common blue crab (*Calinectes sapidus*). Dominant invertebrates rotate throughout the seasons with blue crabs dominant in the winter, grass shrimp most abundant in the spring months, and commercial shrimp species occurring in higher numbers in summer and fall months.

NOAA Coastal Service Center and the Apalachicola National Estuarine Research Reserve (NERR) cosponsored a benthic mapping project that surveyed infauna in Apalachicola Bay. The most dominant species include *Mediomastus*, a polychaete; *Rhynchocoela*, ribbon worms; and *Paraprionospio pinnata*, a polychaete. The abundance of dominant macro-invertebrate abundance reached peak levels during the summer and fall seasons. Invertebrates were reduced in months of low salinity and temperatures. Distribution can also be associated with species-specific reproduction and recruitment as well as feeding preference and habitat suitability (Livingston R. J., 1976).

The highest abundance of fishes within the boundaries of the bay from February through April are juvenile spot (*Leiostomous xanthurus*) and Atlantic croaker (*Micropogonias undulatus*). The overall species numbers tend to be lowest during high river flow, winter, and highest during low flow, summer and fall (Livingston R. , 1997). In Apalachicola Bay, distribution is often related to seasonal fluctuations of temperature, salinity, and other factors related to river flow. Despite the seasonal change of dominant species, the community structure remains stable throughout the year.

7.3.2.2 Oysters

There are no oyster reefs located within the project area. Oyster reefs of commercial importance are subtidal and form aggregates that cover thousands of acres of bay bottom throughout the region along coastal Florida. Since 1980, reported landings of oysters in Florida ranged from about 1 to 6.5 million pounds with highest landings reported in the early 1980s which were around 6.5 million pounds. Reported oyster landings for Apalachicola Bay for 2012 were approximately 2.4 million pounds which was a slight increase over 2011. Apalachicola Bay accounts for about 90% of Florida's landings.

7.3.2.3 Submerged Aquatic Vegetation

There are no known submerged aquatic vegetation (SAV) found within the Eastpoint Channel and proposed open water disposal area. USACE and its contractor conducted

an SAV visual assessment as part of the geotechnical sampling and probing of the proposed BU Site in April and June of 2019. While conducting the initial and final investigation of the BU site, these sites were probed along the transects in the Submerged Aquatic Visual Assessment. Water depths in the BU site vary from -0.5 to 2.5 feet MLLW. Water clarity, wind and wave conditions on both investigations allowed them to visually survey the area as they were moving from one probe location to the next, concluding that no SAVs are within the project area.

7.3.2.4 Essential Fish Habitat

Essential Fish Habitat (EFH) is defined in the Magnuson-Stevens Fishery Conservation and Management Act as… "those waters and substrates necessary to fish for spawning, breeding, feeding or growth to maturity." The designation and conservation of EFH seek to minimize adverse effects on habitat caused by fishing and non-fishing activities. The National Marine Fisheries Service (NMFS) has identified EFH habitats for the Gulf of Mexico in its Fishery Management Plan Amendments (see Table 1). The Gulf of Mexico Fishery Management Plan (2017) identifies EFH in the project area to be intertidal wetlands, SAV, non-vegetated bottoms, shell reefs, and the estuarine water column.

The habitat within the project area, is located between two barrier islands in the Apalachicola Bay system, and consists of estuarine waters, sand, and shell substrates.

Management Plan	Common Name	Scientific Name
Coastal Migratory Pelagic	King mackerel	*Scomberomorus cavella*
	Spanish mackerel	*Scomberomorus maculatus*
	Cobia	*Rachycentron canadum*
Red Drum	Red drum	*Sciaenops ocellatus*
Snappers	Queen snapper	*Etelis oculatus*
	Mutton snapper	*Lutjanus analis*
	Blackfin snapper	*Lutjanus buccanella*
	Red snapper	*Lutjanus campechanus*
	Cubera snapper	*Lutjanus cyanopterus*
	Gray (Mangrove) snapper	*Lutjanus griseus*
	Lane snapper	*Lutjanus synagris*
	Silk snapper	*Lutjanus vivanus*
	Yellowtail snapper	*Ocyurus chrysurus*
	Wenchman	*Pristipomoides aquilonaris*
	Vermillion snapper	*Rhomboplites aurorubens*
Tilefishes	Goldface tilefish	*Caulolatilus chrysops*
	Blueline tilefish	*Caulolatilus microps*
	Tilefish	*Lopholatilus chamaeleonticeps*
Jacks	Greater amberjack	*Seriola dumerili*
	Lesser amberjack	*Seriola fasciata*
	Almaco jack	*Seriola rivoliana*
	Banded rudderfish	*Seriola zonata*
Triggerfishes	Gray triggerfish	*Balistes capriscus*
Hogfish	Hogfish	*Lachnolaimus maximus*
Shrimp	Brown shrimp	*Penaeus aztecus*
	White shrimp	*Penaeus setiferus*
	Pink shrimp	*Penaeus duorarum*
	Royal red shrimp	*Pleoticus robustus*
	Seabob shrimp	*X. kroyeri*
Spiny Lobster	Caribbean spiny lobster	*Panulirus argus*
	Slipper lobster	*S. latus*
Coral and Coral Reefs	Hydrozoa corals (stinging and hydrocorals)	** There are over 140 species of corals listed in the Coral Fishery Management Plan. Taxonomy is undergoing review and will be updated in Coral Amendment 7.*
	Anthozoa (stony and black corals)	
Groupers	(Atlantic) Goliath grouper	*Epinephelus itajara*
	Red grouper	*Epinephelus morio*
	Yellowedge grouper	*Hyporthudus flavolimbatus*
	Warsaw grouper	*Hyporthudus nigritus*
	Snowy grouper	*Hyporthudus niveatus*
	Black grouper	*Mycteroperca bonaci*
	Yellowmouth grouper	*Mycteroperca interstitialis*
	Gag grouper	*Mycteroperca microlepis*
	Scamp grouper	*Mycteroperca phenax*
	Yellowfin grouper	*Mycteroperca venenosa*

Table 1: Managed Fisheries for the Gulf of Mexico

7.3.3 Terrestrial Wildlife

Terrestrial wildlife may be found within the project area after the open-water placement site is converted to a marsh which will consist of a wide variety of birds, mammals, reptiles and amphibians.

7.3.4 Shorebirds

Various shorebirds can be found throughout the project area. There is likely utilization of the wildlife and shorebirds currently in the breakwater marsh areas. The surrounding drainage basins also provide some of the most important bird habitats, which receive large numbers of migratory birds from both the Midwest and Atlantic Seaboard. Additionally, it is expected that shorebirds will be present in abundance after open-water environment is converted to a marsh. The most commonly found species within the vicinity of the project site are listed in Table 2 below.

Common Name	**Scientific Name**
Spotted Sandpiper	*Actitis macularia*
Ruddy Turnstone	*Arenaria interpres*
Sanderling	*Calidris alba*
Dunlin	*Calidris alpine*
Red Knot	*Calidris cantutus*
Western Sandpiper	*Calidris mauri*
Least Sandpiper	*Calidris minutilla*
Willet	*Catoptrophorus semipalmatus*
Snowy Plover	*Charadrius alexandrines*
Piping Plover	*Charadrius melodus*
Semipalmated Plover	*Charadrius semipalmatus*

Common Name	**Scientific Name**
Wilson's Plover	*Charadrius wilsonia*
Common Snipe	*Gallinago gallinago*
American Oystercatcher	*Haematopus palliates*
Black-necked Stilt	*Himantopus mexicanus*
Short-billed Dowitcher	*Limnodromus griseus*
Whimbrel	*Numenius phaeopus*
Black-bellied Plover	*Pluvialis squatarola*
American Woodcock	*Scolopax minor*
Lesser Yellowlegs	*Tringa flavipes*
Greater Yellowlegs	*Tringa melanolevea*

Table 2: Common Shorebird Species in Project Area

7.3.5 Threatened and/or Endangered Species

Table 3 provides the species listed by NMFS Protected Resources Division (PRD) as either threatened, endangered, or a candidate for Federal protection within the Gulf of Mexico.

Species	**Scientific Name**	**Status**
Blue whale	*Balaenoptera musculus*	E
Finback whale	*Balaenoptera physalus*	E
Humpback whale	*Megaptera novaengliae*	E
Right whale	*Eubalaena glacialis*	E
Sei whale	*Balaenoptera borealis*	E
Sperm whale	*Physeter macrocephalus*	E
Green sea turtle	*Chelonia mydas*	E
Hawksbill sea turtle	*Eretmochelys imbricate*	E
Kemp's ridley sea turtle	*Lepidochelys kempii*	E
Leatherback sea turtle	*Dermochelys coriacea*	E
Loggerhead sea turtle	*Caretta caretta*	T
Gulf sturgeon	*Acipenser oxyrinchus desotoi*	T
Smalltooth sawfish	*Pristis pectinate*	E

Table 3: Threatened and Endangered Species under NMFS-PRD Purview

Table 4 provides the species listed for Franklin County by the U.S. Fish and Wildlife Service (USFWS) as either threatened, or endangered.

Species	Scientific Name	Status
Flatwoods salamander	*Ambystoma cingulatum*	T
Loggerhead sea turtle	*Caretta caretta*	T
Green sea turtle	*Chelonia mydas*	E
Leatherback sea turtle	*Dermochelys coriacea*	E
Hawksbill sea turtle	*Eretmochelys imbricate*	E
Kemp's ridley sea turtle	*Lepidochelys kempii*	E
Eastern indigo snake	*Drymarchon corais couperi*	T
Piping plover	*Charadrius melodus*	T
Red knot bird	*Calidris canutus rufa*	T
Purple bankclimber clam	*Elliptoideus sloatianus*	T
Fat three ridge clam	*Amblema neislerii*	E
Chipola slabshell clam	*Elliptio chipolaensis*	T
Ochlockonee moccasinshell clam	*Medionidus simpsonianus*	E
Atlantic sturgeon fish	*Acipenser oxyrinchus*	T
Harper's beauty flowering plants	*Harperocallis flava*	E
White birds-in-a-nest flowering plants	*Macbridea alba*	T
Telephus spurge flowering plants	*Euphorbia telephioides*	T
Florida skullcap flowering plants	*Scutellaria floridana*	T
Red wolf mammal	*Canis rufus*	E
Wood stork	*Mycteria Americana*	E
Red cockaded woodpecker	*Picoides borealis*	E
West Indian manatee	*Trichechus manatus latirostris*	E

Table 4: Threatened and Endangered Species listed by USFWS

The federally listed species that may be found within the vicinity of the project area include Gulf sturgeon (*Acipenser oxyrinchus desotoi*), sea turtles, and West Indian manatee (*Trichechus manatus*). A review of the listed plants for the project vicinity indicated a not likelihood of occurrence given the open-water environment of the

placement area. Whales would not be impacted since they are not found in the Apalachicola Bay/St. George Sound.

7.3.5.1 Sea Turtles

Sea turtles may be found in the Apalachicola Bay, specifically juvenile and adult Loggerhead, Kemp's Ridley and Green Sea Turtles, as these species are found in bays of coastal Florida foraging and migrating.

Green sea turtle is the largest of the hard-shelled turtles weighing up to 870 lbs. Green turtle juveniles and adults are found in inshore and nearshore waters of the Gulf of Mexico from Texas to Florida. In Florida, approximately 99% of green turtle nesting occurs on the Atlantic coast, with most of the activity occurring in the southeastern area of Florida (Valverde R.A., 2017). It is likely that green sea turtles are located in St. Joseph Bay, nearest to the project area.

Loggerheads sea turtles are named for their large heads. The adults are slightly larger than hawksbills but slightly smaller than green sea turtles. Compared to the other sea turtle species, the loggerhead sea turtle has the largest geographic nesting range, which includes both temperate and tropical latitudes. Juvenile and adult Loggerheads are found foraging in neritic (inshore marine bays). However, some adults may also periodically move to the oceanic zone. Water temperature is a critical environmental cue that loggerheads use to guide their movements in and out of shallow coastal waters. Some loggerheads nesting in the Gulf may inhabit oceanic habitats and are significantly smaller than those in neritic habitats. The greatest proportion for nesting is found in the Atlantic coast (Valverde R.A., 2017).

Juvenile Kemps are typically found foraging in Apalachicola Bay. Studies document that juvenile turtles leave the coastal foraging areas in the fall and move to more suitable overwintering habitat in deeper or more southern waters and return to the same coastal feeding areas the following spring. Adult Kemp's ridley sea turtles are primarily located in nearshore waters of the Gulf of Mexico. Satellite tracking indicated that post-nesting female Kemp's ridley travel along coastal corridors (typically shallower than 50 m [164 ft]) along the rim of the Gulf of Mexico.

Leatherbacks and Hawksbill are mostly found in tropical areas and are not likely found near the project area.

7.3.5.2 Gulf Sturgeon (Acipenser oxyrinchus desotoi)

The NMFS-PRD and USFWS listed the Gulf sturgeon as a threatened species on September 30, 1991. The Gulf sturgeon, also known as the Gulf of Mexico sturgeon, is a subspecies of the Atlantic sturgeon. Gulf sturgeon can grow to be 6 to 8 feet in length and weigh up to 200 pounds with adult females growing larger than adult males. The skin is scaleless, brown dorsally and pale ventrally, and imbedded with 5 rows of bony plates.

Gulf sturgeon are described as benthivores (bottom feeders) that change their diets and foraging areas during different life stages. Adult fish are bottom feeders, eating

primarily invertebrates, including brachiopods, insect larvae, mollusks, worms and crustaceans. Gulf sturgeon are anadromous, with reproduction occurring in fresh water. Most adult feeding takes place in the Gulf of Mexico and its estuaries. Gulf sturgeon are believed to migrate from the Apalachicola Bay into the Gulf of Mexico following prevailing currents and exiting primarily through the two most western passes called the Indian Pass and West Pass (68 Federal Register 13397, 2003).

7.3.5.3 Gulf Sturgeon Critical Habitat

The primary constituent elements essential for the conservation of the Gulf sturgeon are those habitat components that support foraging, riverine spawning sites, normal flow regime, water quality, sediment quality, and safe unobstructed migratory pathways. The proposed action is found within Gulf sturgeon critical habitat. Generally, adults and subadults could be described as opportunistic benthivores typically feeding on benthic marine invertebrates including amphipods, lancelets, polychaetes, gastropods, shrimp, isopods, mollusks and crustaceans.

The “water quality” constituent element is important for Gulf sturgeon critical habitat. Temperature, salinity, pH, hardness, turbidity, oxygen concentrations, and other chemical characteristics must be protected in order to preserved normal behavior, growth, and viability of all Gulf sturgeon life stages. If water quality is severely degraded, adverse impacts to Gulf sturgeon and its critical habitat may result.

The “sediment quality” constituent element is listed to ensure the sediment is suitable (i.e. texture and other chemical characteristics) for normal behavior, growth, and viability of all life stages. In addition, the sediment quality is important to support a viable benthic community in order to allow the Gulf sturgeon continual foraging of the area.

The “migration habitat” constituent element is concerned with ensuring safe unobstructed passage for the species. It is intended primarily for the more confined areas near the river mouths or the rivers themselves. The species could potentially migrate through the project area.

The Eastpoint navigation channel is located within one of the fourteen units designated as Gulf sturgeon critical habitat Unit 13 Apalachicola Bay .

Unit 13 Apalachicola Bay: Unit 13 encompasses a total of 168,773 acres within the main body of Apalachicola Bay and the adjacent sounds, bays and nearshore waters of the Gulf of Mexico (Figure 4). This unit provides winter feeding and migration habitat for juvenile and adult species from the Apalachicola River Gulf sturgeon subpopulation. Gulf sturgeons have been documented by sightings, incidental captures, and telemetry studies throughout Apalachicola Bay, East Bay, St. George Sound, St. Vincent Sound, and Indian Lagoon (Odenkirk, 1989). The project site is located within this unit.

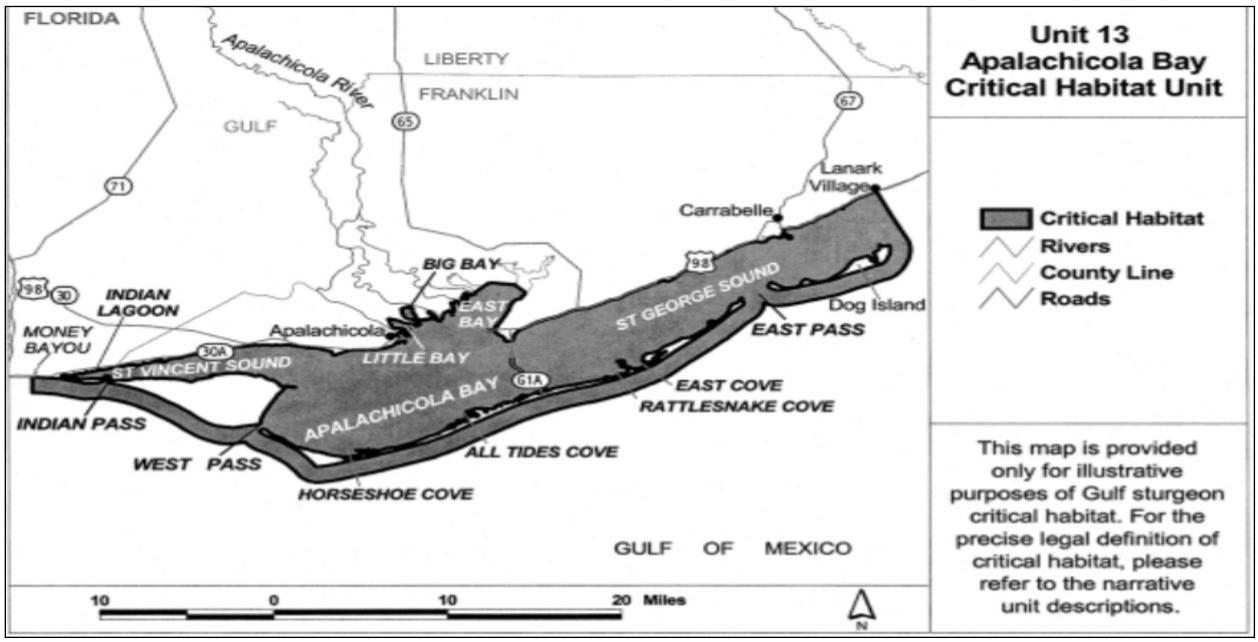


***Figure 4**: Unit 13 Apalachicola Bay Critical Habitat Unit*

7.3.5.4 West Indian Manatee (Trichechus manatus latirostris)

The species occurs in coastal areas from the southeastern U.S. to northeastern South America. It is found in rivers, estuaries, and coastal areas of subtropical and tropical areas of northern South America, West Indies/Caribbean region, Gulf of Mexico (now mainly western and southwestern portions) and southeastern North America. U.S. populations occur primarily in Florida where they are effectively isolated from other populations by the cooler waters of the northern Gulf of Mexico and the deeper waters of the Straits of Florida (Domning, 1986). A few may remain year-round in Cumberland Sound, southeastern Georgia, where factory warm-water outfalls allow survival of colder winter months (Reeves, 1992). Occasionally manatees are found in summer from Texas to North Carolina. The species occurs along most of the Gulf coast of Florida, but infrequently occurs north of the Suwannee River and between the Chassahowitzka River and Tampa Bay. They also occur all along the Atlantic coast of Florida, from the Georgia coast to Biscayne Bay and the Florida Keys, including the St. Johns River, the Indian River lagoon system, and various other waterways (Ludlow, 1992).

The species is primarily dependent upon submergent, emergent, and floating vegetation. Their diet varies according to plant availability, and they may opportunistically eat other foods.

7.4 Cultural Resources

Cultural resources in this Florida Panhandle area consist of both prehistoric and historic archaeological sites, as well as historic structures. Prehistoric Native American sites include shell middens, artifact scatters and campsites and burial mounds. The prehistoric sites in this area of Florida date from PaleoIndian through Mississippian period up until European and Euro-American contact spanning approximately 13,000 years. Historic era sites include historic archaeological sites house foundations, mill

sites, historic scatters, and standing structures such as houses, buildings (schools, churches, government buildings), military structures, and shipwrecks that range from early exploration and colonization up until 50 years ago, circa 1970.

The Eastpoint navigation channel was authorized by Congress and completed more than 50 years ago. The existing channel was constructed in 1954 and operated prior to the enactment of the National Historical Preservation Act (NHPA), which was signed into law in 1966. Since then, the USACE, Mobile District consulted with the Florida Department of State Division of Archives, History and Records Management in 1982 for the construction of the 5,000-foot breakwater and upland disposal of dredged material. A "no effect" on historic properties was concurred on by the agency (letter dated October 27, 1982). Eight cultural resources (five archaeological sites and three historic houses) are recorded by the Florida Master Site File within a one-mile radius of the Area of Potential Effect (APE). None of the recorded cultural resources have been deemed eligible for listing on the National Register of Historic Places (NRHP). An archaeological survey of a portion of the APE was conducted in 1985 (*A Survey of Inundated Aboriginal Site Components in the Tidal Zone Extending from Carrabelle to Eastpoint, Florida by James Card*). No cultural resources are recorded within the project APE.

7.5 Aesthetics

The project area, located in Eastpoint, is considered a small unincorporated village that sits across from the Apalachicola Bay and St. George. Eastpoint is an authentic fishing community, known as the seafood hub for Franklin County, and is one of the few remaining working waterfronts in North Florida. Nearby Apalachicola Bay, Cape St. George Island State Preserve, and areas of St. George Island offer remote and wilderness qualities to provide for a pristine section of beaches that is aesthetically pleasing. The beaches on St. George Island have attracted heavy residential development on the western side where there is a gated community that limits access to the channel by land. The St. George Island State Park, located on the east end of the island, and Cape St. George Preserve are protected from development and contribute to the protection of Apalachicola Bay. The aesthetics of the Apalachicola Coastal Preserve and Cape St. George Preserve makes the area a popular destination for travel, recreation and fishing. Recreational fishing is a principal attraction for tourists coming to the region.

7.6 Social Economic Environment

7.6.1 Economic Activity

Eastpoint is an isolated area once dependent upon its fishing and maritime community for its economic survival. From 2016 to 2017, employment in Eastpoint declined at a rate of 7.72%, from 998 employees to 921 employees. The most specialized job groups in Eastpoint are law enforcement workers, farming, fishing, forestry, and health technologists and technicians. Farming, fishing, and forestry occupations declined from 19.9% in 2013 to 7.38% in 2017 with a decrease of 12.5% from a once thriving seafood community.

The Florida Panhandle relies on its coastal waters to provide a variety of economic and social benefits to its residents and visitors, alike. The coastal ecosystems in the project area support a wide variety of commercial and recreational activities that contribute significantly to the State's economy. Sport and commercial fisheries are some of the most notable economic highlights, within the region and the State. Apalachicola Bay provides 90% of the state's oyster harvest. The marine environments within the area also provide essential transportation links, support a variety of water-dependent facilities, and offer an array of recreational opportunities that attract thousands of visitors to the area each year (FDEP, 1994).

7.6.2 Land Use

The location of the proposed action is within the coastal region of northwest Florida. Lands in this area include national, state and county parks, large military holdings and several urbanized areas. Agricultural lands are generally scattered across the Northern Highlands portion of the panhandle. The remainder of the land is divided between forested and non-forested wetlands, barren lands and water bodies.

The panhandle is generally rural with an overall population density of less than 75 persons per square mile (NFWMD, 1996). Urban areas account for only about 6% of northwest Florida. High population densities of the region exist mainly along the coast in Pensacola, Ft. Walton Beach vicinity, and Panama City (NFWMD, 1996). Land use adjacent to the channel is primarily commercial (oyster/seafood processing), recreational and residential. Eastpoint is a small community with a population of approximately 2,156 people.

7.7 Recreation

Eastpoint serves as the heart of Franklin County's commercial oyster industry. Locals and tourists enjoy the seafood docks that stretch almost the entire length of the community. Eastpoint is located across the bay from Apalachicola and St. George Island, and is unique part of Florida's coast.

Commercial woodlands adjacent to the Apalachicola National Forest provides hunting, camping, and sightseeing opportunities which is the largest public recreational area in the county. Additionally, the Apalachicola National Estuarine Research Reserve used to conserve the shoreline and contribute to the overall protection of Apalachicola Bay is located northeast of the St. George Island Bridge in Eastpoint, Florida. The Reserve manages more than 90 acres that stretch along the bayshore of St. George Sound and provides opportunities to explore marsh and flatwood habitats and natural communities. (Figure 5).

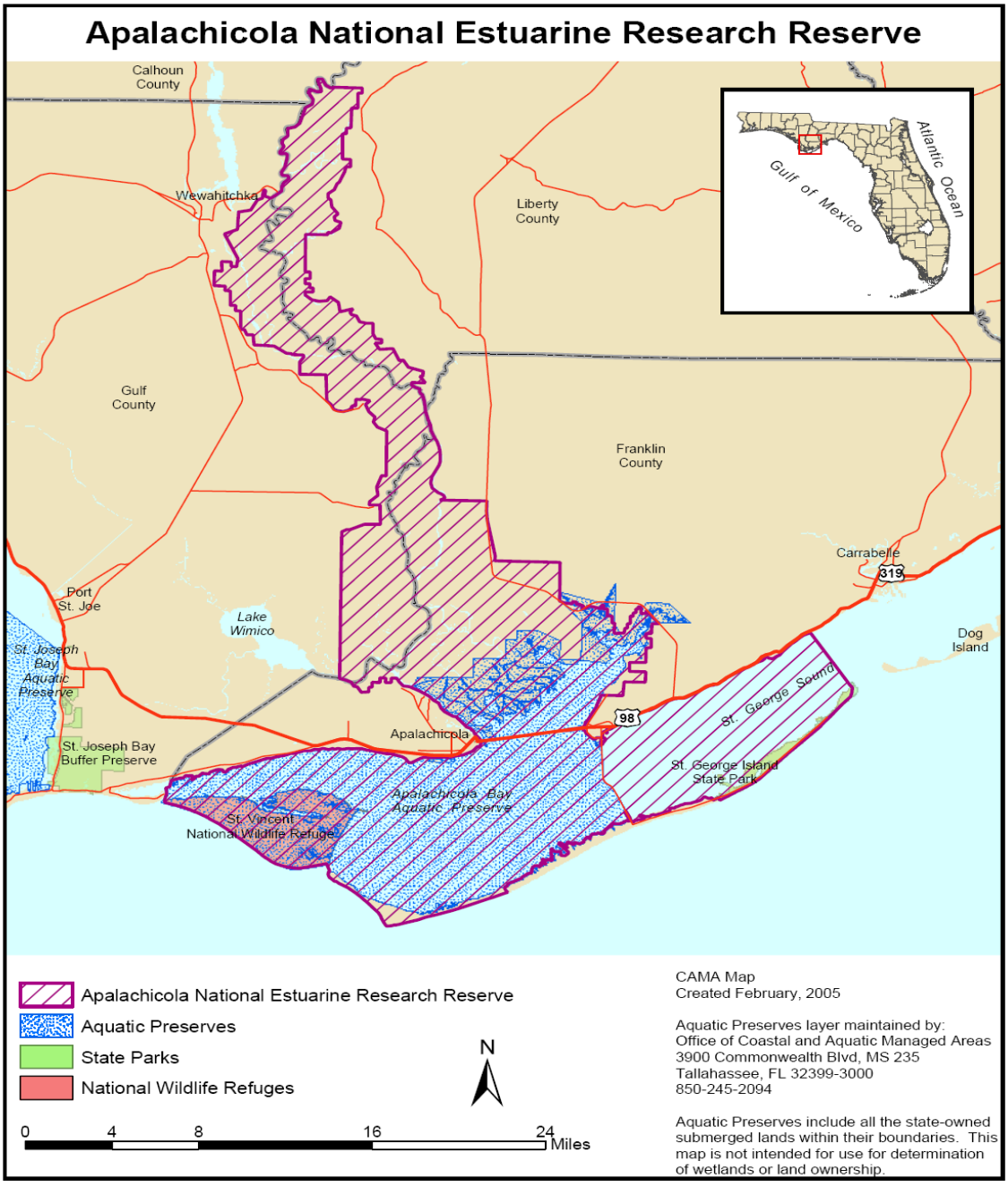


***Figure 5**: Apalachicola National Estuarine Research Reserve*

7.8 Noise

Noise levels in the area are typical of recreational, boating, and marina activities. Noise levels fluctuate with the highest levels usually occurring during the spring and summer months due to increased boating, fishing, and coastal beach activities.

8 ENVIRONMENTAL IMPACTS

Performing an evaluation of environmental impacts for proposed Federal actions is a requirement of Federal law (40 CFR §1500-1508, 1515-1518). An impact analysis must be compared to a significance threshold to determine whether a potential consequence of an alternative is considered a significant impact. If the impact is significant, it may be mitigated (i.e., measures are available to reduce the level of impact, so it is no longer significant) or unmitigated. "Significance" under NEPA is determined using two variables: context and intensity. Factors to consider when determining significance include: impacts that may be both beneficial and adverse, degree to which the action affects public health and safety, unique characteristics of the geographic area, degree to which effects may be highly controversial, highly uncertain effects or unique or unknown risks, degree to which action may establish precedent for future actions with significant impacts, etc.

Impacts attributed by both Alternatives 2 and 3 would be very similar to those disclosed for Alternative 1 in the below sections, with minor differences associated with hardened structural features (i.e. rip rap and WADs) and a slightly larger footprint(s).

8.1 Biological Resources

8.1.1 Wetlands

No impacts to wetlands would occur from dredging the federally authorized navigation channel at Eastpoint. Furthermore, there are no wetlands located in the footprint of the channel dredging and project BU area. However, there are wetlands outside of the BU site along the existing breakwater, which serves as a barrier between the wetlands and the placement area. Best management practices and turbidity monitoring would be used to avoid impacts to those wetlands. Therefore, no significant impacts will occur due to proposed action. However, this proposed action has the potential to improve environmental quality by providing favorable conditions for additional marsh establishment via natural colonization within the BU site.

No Action Alternative: Implementation of the no action alternative would result in no BU site and no additional marsh establishment; however, if the channel continues to shoal, it could create favorable conditions for marsh establishment.

8.1.2 Water Quality

No impacts to water quality are anticipated. Short-term impacts would involve increased, localized turbidity and decreased dissolved oxygen associated with dredging and placement operations. However, these impacts are expected to be temporary and minimal. During dredging and placement operations, turbidity levels would be monitored to ensure compliance with the state water quality certification from the FDEP. All guidelines would be maintained during the proposed activity.

No Action Alternative: The No Action alternative would not cause any long-term adverse impacts to water quality. However, the continual shoaling of the channel, could cause increased turbidity and decreased dissolved oxygen.

8.1.3 Aquatic Environment

8.1.3.1 Benthos Motile Invertebrates, and Fishes

No significant impacts to the benthos, motile invertebrates, and fishes from the proposed action were identified in this evaluation. There would be temporary disruption of the aquatic community caused by the dredging and disposal operations. Non-motile benthic fauna within the area would be destroyed by dredging and disposal operations but should repopulate within six to twelve months upon project completion (Culter, 1982). Some of the motile benthic and pelagic fauna, such as crabs, shrimp, and fishes, would avoid the disturbed area and should return shortly after the activity is completed. The larval and juvenile stages of these forms may not be able to avoid the activity due to their limited mobility.

No Action Alternative: Implementation of the no action alternative to the channel would continue to infill with sediments. This infilling would be slow relative to the rate of benthic colonization of the new material but would gradually provide additional benthic habitat. In addition, without the BU site, there is no additional benthic habitat.

8.1.3.2 Oyster Resources

There are a significant amount oyster reefs in Apalachicola Bay that are near the vicinity of the project site but not within the dredging or disposal footprint of the project. USACE would maintain 660 feet buffers between all disposal activity and oyster beds, as required within the existing Eastpoint State of Florida water quality certification conditions. The locations of the oyster beds will be identified and shellfish harvesting areas would be temporarily closed by the Florida Department of Agriculture and Consumer Services (DACS), Aquaculture Division, prior to dredging and placement activities (Figure 6).

No Action Alternative: Implementation of the no action alternative to the channel would continue to infill with sediments. Therefore, with continued shoaling, would result in a loss of additional habitat for marine life and a continued loss to Eastpoint's economy.

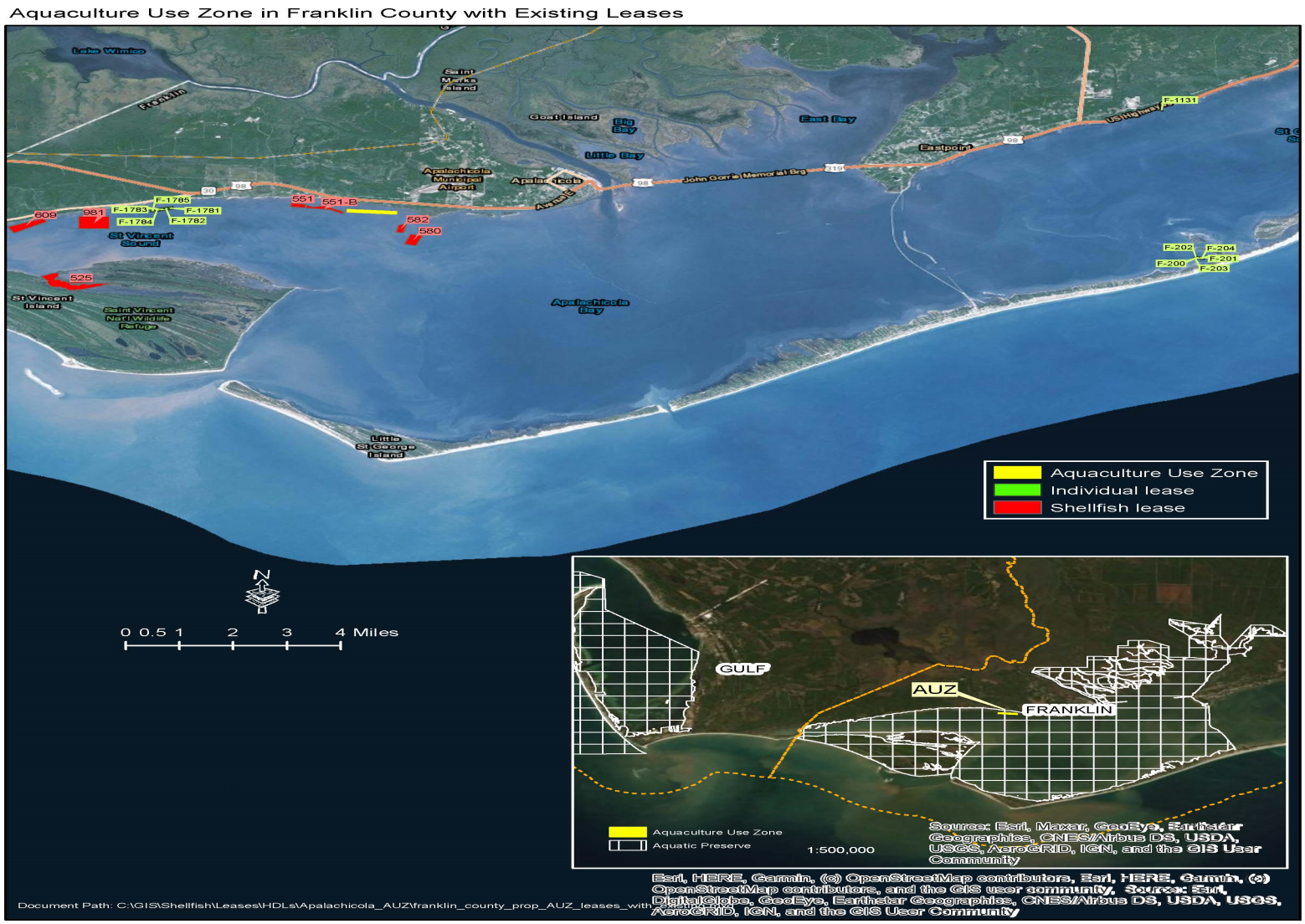


***Figure 6**: Oyster Propagation Map*

8.1.3.3 Submerged Aquatic Vegetation

Based on the SAV visual assessment conducted, no SAVs are located within the project area. This proposed action has the potential to improve environmental quality by providing favorable conditions for additional marsh creation via natural colonization.

No Action Alternative: Implementation of the no action alternative would result in no impacts to any aspect of SAV.

8.1.3.4 Essential Fish Habitat

The Gulf of Mexico Fishery Management Council in accordance with the Magnuson-Stevens Fishery Conservation and Management Act (Public Law 94-265) has developed management plans for the following fisheries: shrimp, red drum, reef fish, stone crab, spiny lobster, coral and coral reef and coastal migratory pelagic species. The Gulf of Mexico Fishery Management Plan (2017) identifies EFH in the project area to be intertidal wetlands, SAV, non-vegetated bottoms, shell reefs, and the estuarine water column.

The proposed action will not significantly affect coastal habitat identified as EFH in the project area. No adverse impacts to wetlands, SAVs or shell reefs, which are outside of the project footprint, are anticipated. Turbidity generated in the water column would be temporary and localized, and of a short duration. Motile benthic species identified to be present within the project area will likely exit the area upon initiation of dredging operations. The exception is non-motile benthic invertebrates that will be impacted by the project. However, impacts to these species will be insignificant as they will re-colonize the area within a few months. USACE is coordinating with Habitat Conservation Division of NMFS to ensure that proposed activity will not significantly impact EFH.

No Action Alternative: Implementation of the no action alternative to the channel would continue to infill with sediments. This infilling would be slow relative to the rate of benthic colonization of the new material but would provide additional EFH habitat. In addition, without the BU site, there is no additional EFH habitat.

8.1.4 Terrestrial Wildlife

As a result of this evaluation, no adverse impacts to the terrestrial wildlife are anticipated to occur within the vicinity of the proposed action area because the impacts are limited to open-water discharge into the estuarine area. Placement activities within the proposed BU placement areas would be favorable for marsh creation, thus providing future habitat for terrestrial wildlife.

No Action Alternative: Implementation of the no action alternative to the channel would continue to infill with sediments. The conversion of open-water to land, would provide opportunities for terrestrial wildlife habitat. Without the BU site, there would be no additional habitat for terrestrial wildlife.

8.1.5 Shorebirds

No adverse impacts to migratory shorebirds are anticipated with the implementation of the project. It is likely that diving and wading birds utilize the shallow shoals and marshes at the breakwater. With the establishment of the BU site, that habitat will be expanded, and those birds are expected to increase in the area.

No Action Alternative: Implementation of the no action alternative to the channel would continue to infill with sediments. Without the BU site, there would be no additional habitat for shorebirds.

8.1.6 Threatened and/or Endangered Species

The proposed project is being coordinated with USFWS and the NMFS, PRD for the proposed operations in Eastpoint.

A review of the listed terrestrial and marine wildlife, and plant species for the project vicinity indicated a low likelihood of occurrence of listed species. Whales would not be impacted since they are not found in the Apalachicola Bay/St. George Sound; and the listed plants will not be impacted given the open water environment of the placement site.

The project may affect but is not likely to adversely affect sea turtles, since dredging would be done via a hydraulic cutterhead pipeline or mechanical dredge, and these are known to have discountable impacts sea turtles as determined by the NMFS in 2003 in the Gulf Regional Biological Opinion for Dredging of Gulf of Mexico Navigation Channels and Sand Mining Areas Using Hopper Dredges by USACE Galveston, New Orleans, Mobile, and Jacksonville Districts (GRBO) (Consultation Number F/SER/2000/01287) dated November 19, 2003 (amended 2005 and 2007).

Manatees could be in the project area; however, there is not a potential for adverse impacts to occur. Standard protection measures as developed by USFWS, will be observed during dredging operations. In addition, it is likely that these species would avoid the construction areas due to noise and activity. Therefore, the proposed action may affect but is not likely to adversely affect listed manatee species.

Gulf sturgeons may be found in the area. Any potential impacts to Gulf sturgeon resulting from the proposed dredging and placement activities would be confined to dredging activity, however, impacts are discountable with the use of a hydraulic cutter-head dredge, as they are not known to impact Gulf sturgeon as determined by the NMFS in 2003 in the Gulf Regional Biological Opinion for Dredging of Gulf of Mexico Navigation Channels and Sand Mining Areas Using Hopper Dredges by USACE Galveston, New Orleans, Mobile, and Jacksonville Districts (GRBO) (Consultation Number F/SER/2000/01287) dated November 19, 2003 (amended 2005 and 2007).

The project is located within Gulf sturgeon critical habitat Unit 13. The primary constituent elements that are of concern for unit 13 include: abundant prey items and migratory pathways. Neither the placement of dredged materials in the containment cell, nor the operation of the dredging equipment is expected to create barriers to the migration of the species. The bay portion of the project provides sufficient width and

appropriate habitat depth for sturgeon passage and foraging around the dredging activities. Unit 13 provides foraging habitat for the Gulf sturgeon. However, it is unlikely that Gulf sturgeon would forage in the action area due to the footprint of the placement site being too shallow and less than -0.5 ft MLLW to 1.0 ft MLLW. Sturgeons are typically found foraging in depths between -6.0 to -19 feet with sandy bottoms. Therefore, the proposed action may affect but is not likely to adversely affect Gulf sturgeon.

No Action Alternative: Implementation of the no action alternative to the channel would continue to infill with sediments.

8.2 Cultural Resources

Because the proposed project will be constructing a new 26-acre dredged material placement area, the USACE, Mobile District updated consultation with the Florida State Historic Preservation Officer (SHPO) which was initiated in August 2020. The Mobile District has determined no historic properties affected for the maintenance dredging of the channel and the construction of the new placement area within a previously disturbed area (from previous dredge placement). Updated consultation with the Florida SHPO was initiated in August 2020, with a determination of no historic properties affected for this project.

No Action Alternative: Implementation of the no action alternative to the channel would continue to fill with sediments. It is unlikely that any cultural resources would be impacted .

8.3 Aesthetics

Access to the project area would be restricted during active dredging and placement operations. Aesthetics will be temporarily impacted in the immediate vicinity of the proposed project operations. Therefore, no significant long-term impacts are likely to occur.

No Action Alternative: Implementation of the no action alternative would result in no impacts to any aspect of aesthetics.

8.4 Social Economic Environment

8.4.1 Economic Activity

No significant impacts to the economic activity in the project vicinity were identified in this evaluation. The proposed action will benefit the local and regional and economy by ensuring a safe and economical transportation link for water-dependent facilities.

No Action Alternative: Implementation of the no action alternative would result in no improved impacts to economic activity.

8.4.2 Land Use

There are no new impacts being proposed to the land; therefore, it is not anticipated to have any adverse impacts.

No Action Alternative: Implementation of the no action alternative would result in no impacts to any aspect of the surrounding land use.

8.5 Recreation

Recreational and commercial boaters that presently use the navigation project would be temporarily impacted by the proposed action of maintenance dredging in Eastpoint. These impacts would be short term in duration and minimal in overall impact. Upon completion of routine maintenance dredging, the affected area would quickly return to its full recreational capabilities.

No Action Alternative: Implementation of the no action alternative to the channel would continue to infill with sediments. Utilization of the channel for recreational activities would become increasingly difficult as the channel shoal restricts boating access.

8.6 Noise

Noise from the dredge and other job-related equipment is expected to increase during the proposed operations in the project vicinity. Noise levels will resume to prior conditions once the dredging and disposal operations are complete. No long-term increase in noise will occur in or around the project area.

No Action Alternative: Implementation of the no action alternative would result in no impacts to any aspect of noise in the project area.

8.7 Reasonably Foreseeable Impacts

The proposed action covers a small area of Franklin County, and Apalachicola Bay. The proposed dredging activity will occur within an interval of approximately two months. Temporary impacts to benthic communities are expected to occur, however, benthic communities typically recover or recolonize disturbed sites in six to twelve months. Seagrasses are not known to be within the area. Incremental impacts from other foreseeable future projects are also expected to have insignificant temporary impacts on water quality, biological, historic, and fishery resources.

This proposed action has the potential to improve environmental quality by providing favorable conditions for additional marsh creation via natural colonization.

9 OTHER PERTINENT ENVIRONMENTAL LAWS AND REGULATIONS

9.1 Clean Water Act

Water Quality Certification under Section 401 of the Clean Water Act is currently being modified by the State of Florida for the proposed action. All FDEP guidelines shall be followed during the proposed action.

Based on the previous State Water Quality Certification issued by FDEP, a mixing zone for turbidity was granted and shall extend no further than 150 meters from the limits of the dredged material containment cell. In accordance with Variance No. 19-270106-

002-EV, issued on October 17, 2012, existing ambient water quality may be degraded temporarily. Therefore, the USACE, Mobile District will comply with the turbidity sampling and monitoring permitting conditions.

9.2 Protection of Children

Executive Order (EO) 13045, the Protection of Children from Environmental Health Risks and Safety Risks, was issued April 23, 1997. EO 13045 applies to significant regulatory actions that concern an environmental health or safety risk that could disproportionately adversely affect children.

Environmental health risks or safety risks refer to risks to health or to safety that are attributable to products or substances that the child is likely to encounter or ingest. The proposed action would not impact the health and safety of children. Barriers, site workman, and other measures would be implemented to provide protection to non-project workers.

9.3 Environmental Justice

EO 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations (February 11, 1994), requires that Federal agencies conduct their programs, policies, and activities that substantially affect human health or the environment in a manner that ensures that such programs, policies, and activities do not have the effect of excluding persons (including populations) from participation in, denying persons (including populations) the benefits of, or subjecting persons (including populations) to discrimination under such programs, policies, and activities because of their race, color, or national origin. The proposed project is not designed to create a benefit for any group or individuals. The proposed activities do not create disproportionately high or adverse human health or environmental impacts on any low-income populations of the surrounding area. Review and evaluation of the proposed project have not disclosed the existence of identifiable minority or low-income communities that will be adversely affected by the proposed project.

10 COORDINATION

The EA will be made available to Federal, state, local agencies, and interested persons via 30-day public notice. Any comments on the action will be addressed in the EA.

11 CONCLUSION

Based on the above discussion, implementation of the proposed action, dredging and placement activities is not projected to have any significant long-term adverse effects. Upon finalization of this EA, a Findings of No Significant Impacts (FONSI) will be prepared and signed by the District Commander.

12 LIST OF PREPARERS

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