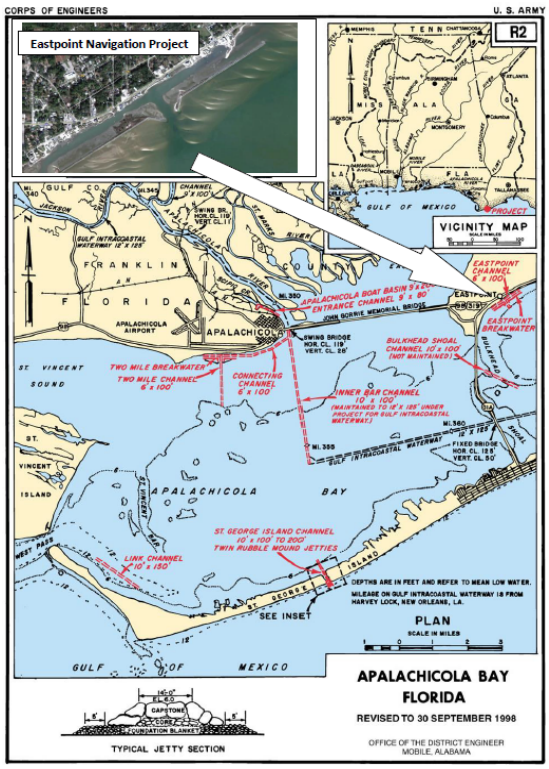
DRAFT
ENVIRONMENTAL ASSESSMENT

MAINTENANCE DREDGING OF EASTPOINT NAVIGATION CHANNEL
EASTPOINT, FLORIDA

A FEDERALLY AUTHORIZED PROJECT



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Last Update: 26 August 2013

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MAINTENANCE DREDGING OF THE EASTPOINT NAVIGATION CHANNEL EASTPOINT, FLORIDA

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1.0 INTRODUCTION

The purpose for the proposed action is to update the National Environmental Policy Act (NEPA) documentation, as the original 1983 Eastpoint Environmental Impact Statement (EIS) predates some changes in the environmental setting and there have been new designations since then, such as Essential Fish Habitat (EFH) and Gulf sturgeon critical habitat designation, delisting of the bald eagle to protection under the Bald and Golden Eagle Protection Act, and implementation of Executive Order 12898 – Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations and Executive Order 13045 - Protection of Children from Environmental Health Risks and Safety Risks. This Environmental Assessment (EA) will address the continual maintenance dredging and sediment placement operations for the federally authorized Eastpoint navigation project, Franklin County, Florida.

1.1 Project History. The seafood industry expanded in Eastpoint since the construction of the John Gorrie Bridge in 1935, which provided a ready 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 haul in the days catch but could only operate effectively during high tide. With the assistance of Congressman Bob Sikes, a public meeting was held by the U.S. Army Corps of Engineers (USACE) in Apalachicola, Florida. Approximately 100 people attended the meeting, which resulted in a request for a channel 9 feet deep by 100 feet wide parallel to the Eastpoint Shoreline for 7,500 feet. Sixteen months later, USACE surveyed the area and made a favorable recommendation for the project.

In 1951, a report published as House Document Number 156, 82nd Congress, 1st Session, recommended modification of the existing project to provide at Eastpoint, Florida a channel 6 feet deep, 100 feet wide and about 6,000 feet long. In 1954, Congress authorized USACE to dredge a channel along the Eastpoint waterfront for the benefit of the fishing community. On September 10, 1954 construction began on the channel. The channel was dredged to a depth of 8 feet even though the authorized depth was 6 feet. It was standard practice back then to dredge deeper than the authorized depth to allow for silting in of the channel. 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 at a cost of $53,100. From the late 1950's through the 1980s 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 lining the harbor. Hundreds of people were employed along the waterfront helping to off-load and process catches from the boats. 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. The channel is too shallow for boats to unload their catch.

The USACE conducted maintenance dredging of the channel in 1977 and in 1984. During the late summer and early fall of 1984, USACE also constructed a 5,300 foot long rubble breakwater about 500 feet offshore to protect Eastpoint Harbor and its fishing fleet. In 2003, Congress appropriated $1.5 million for Eastpoint maintenance dredging through a congressional add, but that dredging was not performed due to Hurricane Katrina. In the wake of Hurricane Katrina, funds were redirected for projects in New Orleans (Eastpoint 2012). USACE intended to reinstate those funds for Eastpoint's dredging project. However, after Hurricane Katrina, Congress passed a bill prohibiting the reallocation of funds. Since that time, the Eastpoint project has not had any funds authorized to dredge the channel or to make improvements to the existing breakwater.

1.2 Environmental History. In 1974, a draft EIS was prepared for a breakwater at Eastpoint and was circulated for comments in November to Federal, State, and local agencies and to citizens groups and interested parties. In addition, a Draft Detailed Breakwater Project Report was also available for review at the same time. However, the study and plans under consideration were delayed due to concerns expressed by the State of Florida and other Federal Agencies for the effects of a breakwater on Apalachicola Bay.

Another Draft Detailed Project Report and EIS were circulated in the spring of 1978. A public meeting was held in Apalachicola, Florida on 27 June 1978. During the review of that report, State and Federal environmental agencies raised several questions concerning the tentatively selected plan which consisted of a breakwater, relocating a part of the existing channel, and marsh creation. As a result of the coordination, the plan was modified by eliminating the channel relocation and the marsh creation features of the plan and application for water quality certification was made to the Department of Environmental Regulation (DER). DER's completeness summary on the water quality certification application reiterated their requirement for modeling studies prior to approval of the breakwater.

In the early 1980's, USACE completed a; 1) economic study showing the benefits, costs and justification for the project, 2) water quality survey, 3) modeling study, and 4) waste assimilative capacity study. They also completed a Draft EIS and Section 404 (b) (1) water quality report in 1982 which underwent public and agency review. In 1983, a document titled; *Detailed Project Report and Environmental Impact Statement on Breakwater at Eastpoint, Florida May 1983* was approved and signed. State water quality was issued on June 20, 1983. The breakwater construction was completed in the fall of 1984 at a cost of $2,483,000 and was the last dredging at that time. During this dredging event, the material was placed in an upland disposal area on county property. Now, the disposal area property has a public school constructed on it and is not available for further disposal.

1.3 Impact Analysis. This EA evaluates the potential environmental impacts associated with the maintenance dredging and placement activities for the portion of the federally authorized Eastpoint navigation project located in Eastpoint, Florida. This EA has been prepared by the USACE, Mobile District, and meets the requirements of the NEPA.

2.0 DESCRIPTION OF THE AUTHORIZED PROJECT

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 to water of the same depth in St. George Sound (Figure 1).

3.0 DESCRIPTION OF THE PROPOSED ACTION

The proposed action is the periodic maintenance dredging of the federally authorized Eastpoint navigation channel located in Franklin County, St. George Sound. Maintenance of the project consists of the removal and placement of approximately 244,000 cubic yards of silts, clays, and poorly graded sand. The maximum dredge depth includes a design depth of -6 feet Mean Lower Low Water (MLLW), two (2) feet of advance maintenance and an over dredge depth of two (2) feet for a total elevation of -10 feet MLLW. Maintenance dredging of soft-dredged material with a hydraulic dredge may disturb the bottom sediments several feet deeper than the target depth due to the physical conditions and inaccuracies of the dredging process. An additional 3 feet of sediments below the 2-foot over dredge depth cut may be disturbed in the dredging process with minor amounts of material being removed. In addition, a new 26 acre placement site will be constructed of a geotextile-fabric covered sand base, sand-filled geotubes and sand dikes using sandy material from the bottom of St. George Sound adjacent to the sand structures. The elevation of the sand and geotube berms will be approximately +3 feet MLLW, and the base of the berms and sand dikes will be approximately 30 to 40 feet wide. The dredged material containment cell will be approximately 2,500 feet long and between 400 and 500 feet wide. It will be constructed adjacent to and on the south side of the existing western breakwater. Dredging is typically conducted via a hydraulic pipeline or mechanical dredge. The sediment removed during maintenance activities would be placed in the contained placement area as shown in Figure 2 of this document.

4.0 PURPOSE AND NEED FOR THE PROPOSED ACTION

The purpose and need for the proposed action is to update the EA and supporting environmental documents, as the original 1983 EIS predates existing environmental conditions. This EA addresses the continual maintenance dredging and disposal for the Eastpoint Federal navigation channel in Florida. In addition, the federally authorized dredging maintenance project provides small craft and oyster boats a secure and safe means of navigating to and from the seafood processing plants. This channel has historically been a vital means for transporting seafood for several decades. Without the proposed action, the vessels utilizing the channel will be subjected

to adverse navigational conditions caused by shoaling which would in turn eliminate a vital and economical link for the community of Eastpoint and their important seafood markets.

The Easpoint navigation project is critical towards sustaining vital commercial activities that are essential components of the local and regional economy. Such activities provide valuable services and resources to local and regional populations as well as providing employment opportunities. Providing the long-term capability to maintain the Eastpoint navigation project is essential towards sustaining vital commercial shrimp, crab and oyster harvesting industries.

5.0 ALTERNATIVES 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 Council on Environmental Quality (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 overdepth 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. Therefore, the "no action" alternative was deemed unacceptable and is not considered further.

5.2 Existing Navigation Project with Upland Disposal. This alternative would result in the continued operation and maintenance of the Eastpoint navigation channel with no modifications being proposed to the placement of dredged material within the previously used upland disposal area. Since this disposal area was last used, a new public school was constructed on the existing upland disposal area in 2008. Currently, there is not enough space on the remaining undeveloped property around the school for the placement of additional dredged material so this disposal alternative is no longer a feasible alternative.

5.3. Existing Navigation Project with New Disposal Area. This alternative would result in the continued operation and maintenance of the Eastpoint navigation channel with a proposed modification to the dredged material disposal area. A new 26 acre disposal area is proposed for the placement of dredged material located along the southern side of the western breakwater as described in Section 3.0 and shown in Figure 2 of this EA. This alternative was selected as the most feasible and preferred alternative.

6.0 AFFECTED ENVIRONMENT

6.1 Physical Environment

6.1.1 Climate. The climate of the Florida Panhandle is typical of that experienced along the northern Gulf Coast. Because of the moderating effects of the Gulf, the range in both temperature and humidity extremes is small. These ranges decrease even more when southerly winds prevail and impart characteristics of a marine climate. Continental influences are felt with northerly winds that usually bring relatively dry air and larger diurnal temperature ranges. The annual average precipitation for the western portion of the Florida Panhandle is greater than 56 inches. Frequency of rainfall is consistent through most of the year. Afternoon thunderstorms increase the amount of rainfall during the summer. Hurricanes can also contribute significantly to rainfall accumulation from summer to early fall.
The average annual maximum daily temperature is approximately 77° Fahrenheit (F). Average annual minimum daily temperature falls around 55° F. Temperatures in the area range greater than 88° F within the summer months of July and August to lows of 40° F in January. Summer and early fall humidity is high, usually between 80 and 100 percent in the afternoon. Winter and early spring humidity is much lower, often less than 20 to 40 percent during the warmest time of day.

6.1.2 Topography, Geology and Soils. The Florida Panhandle is comprised of a relatively flat terrain, ranging in elevation from 0 to about 50 feet above mean sea level. 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.

Soils in the coastal panhandle of Florida consist predominately of medium to fine grain sands and silts associated with recent Pleistocene formations. Specifically, lower marine and estuarine deposits are prevalent from accumulated deposition from the Gulf of Mexico. The stratigraphy generally includes light sandy moderately well-drained top soils overlaying dark somewhat poorly drained sandy subsoil. The wetland soils tend to have a higher clay content, but the marine origins of the predominate parent materials tend to make sand the dominate grain size throughout. Parent material includes Quaternary marine and estuarine sediments. Dredged sediments are typically a mixture of sands, silts, and clays.

6.1.3 Hydrology and 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 River and Bay. There are also two major groundwater systems located in the general vicinity: the Sand and Gravel Aquifer located in the western portion of the panhandle and the Florida Aquifer System in the east.

The Apalachicola River and Bay Basin encompasses approximately 280 square miles and incorporates St. Vincent Sound, East Bay, Apalachicola Bay, and St. George Sound. The watershed is only part of a larger basin, the Apalachicola-Chattahoochee-Flint (ACF) River system, which covers the southeastern part of Alabama, north-central and southwestern portions of Georgia, as well as the central part of the Florida panhandle. The Bay water depths range from 6 to 9 feet at mean low water. The floor slopes towards the barrier islands where depths generally increase to 10 to 12 feet. The major freshwater inflow to the bay is the Apalachicola

River which has an average flow rate of 26,380 cubic feet per second (cfs). Headwaters for this alluvial river system originate in the Blue Ridge physiographic province (NOAA, 1997).

The groundwater in this area is abundant and generally of good quality, this stems from two factors; a high annual rainfall and an aquifer of unconsolidated quartz sand and gravel that serves as an immense reservoir. The groundwater in this region supplies nearly 80 percent of the wells in the panhandle and is one of the softest and least mineralized groundwater within the state.

6.1.4 Air Quality. Sources of air pollution in the project area are minor and mainly due to non-point sources, such as boat motors and vehicular traffic emissions. No major sources of air pollution were found within the vicinity of the project area.

The Clean Air Act of 1970, as amended, mandated that the U. S. Environmental Protection Agency (EPA) establish ambient standards for certain pollutants, regarding all identifiable effects a pollutant may have on the public health and welfare. The EPA subsequently developed the National Ambient Air Quality Standards (NAAQS) identifying levels of air quality, which it judged necessary to protect public health and welfare, and account for the environment. Areas in compliance with the NAAQS are termed as in attainment areas, while areas not meeting the standards are termed non-attainment areas. The Florida Department of Environmental Protection (FDEP)-Division of Air Resource is responsible for administrating the Clean Air Act in the state of Florida.

According to the monitored ambient air quality measurements, Franklin County is considered in attainment for all monitored pollutants including Carbon Monoxide (CO), Ozone (O3), Particulate Matter (PM-10), Sulfur Dioxide (SO2), and Lead (Pb).

6.1.5 Noise. Noise, generally, can be defined as unwanted sound and, therefore, is considered a relative environmental parameter. Noise levels in the area are primarily from seafood processing plants, commercial and recreational vessels. Noise levels fluctuate with highest levels usually occurring during the spring and summer months due to the increased boating and coastal beach activities.

6.1.6 Water Quality. Water quality within the project area is influenced by point and non-point source pollution. The FDEP document—Site Specific Information in Support of Establishing Numeric Nutrient Criteria in Apalachicola Bay dated December 2012 indicated a number of sources of water quality degradation within the watersheds. The most notable throughout the region was long-term reductions in river flow, urban and agricultural runoff. In spite of these notable pollution sources the 2012 305(b) Water Quality Assessment found the State of Florida's surface and groundwater resources to be predominantly in good condition based on the indicators assessed. In addition, water quality in the northwest sections of the state was found to be generally better than in other areas of the state.

6.1.7 Sediment Quality. The sediments within the Eastpoint navigation channel have been sampled as recently as 2012 and also in 2005 for both chemical and physical characteristics. In both instances, sample results indicated that the material was suitable for placement in the proposed disposal area. Grain size in this area consists of a finer grained material primarily clays

and silts along with a mixture of fine sands. Of the 13 core samples referenced in the 2012 report: 9 of the samples had clay contents greater than 79% with a range of 79.5% to a high of 91.5% with the reaming 4 samples consisting of fine sand with a range of 50% to approximately 75% (FEDP 2012).

A monitoring program by the National Oceanic and Atmospheric Administration-National Ocean Service (NOAA) gives an analysis of the status and trends of chemical constituents in sediments and tissues for estuaries, bays and sounds along the U.S. coastline. NOAA summarized the NOAA's Status and Trend (NS& T) Program data from 1984 through 1989 from estuaries nationwide for the period of in 1991 (NOAA, 1997). This data revealed that the concentrations of a number of chemicals were significantly elevated in sediments. In light of these studies a further in depth evaluation was conducted for four bays in the Florida Panhandle: Pensacola, Choctawhatchee, St. Andrew and Apalachicola to determine concentrations of trace metals, pesticides, other chlorinated compounds, and polynuclear aromatic hydrocarbons. The study indicated that the tributaries of the bay systems contained higher concentrations of chemical constituents than the main bays. This is likely attributed to the highly urbanized areas surrounding these systems. For the most part, Eastpoint is far removed from the tributaries identified above. Upon reviewing the dataset of point location of facilities containing or producing hazardous materials, no obvious potential point sources of contamination were identified. The majority of the sites identified containing contaminates were in the vicinity of water treatment facilities.

In 2008, the Apalachicola National Estuarine Research Reserve published a report focusing on the Apalachicola River and Bay system. The study focused on general hydrologic and physical characteristics, habitat, biota, and contaminants in the system. For the most part, this review reported historical information on the presence of contaminants in the area. In one study contracted by the Reserve in 1993 pesticides, herbicides, polyaromatic hydrocarbons, and nutrients were analyzed in sediment samples. Forty-seven EPA priority pollutants were analyzed from the 8 stations in the bay. In all cases little anthropogenic influence was detected with the values of all parameters below detectable limits. Organic contaminant levels were minimal and overall sediment quality was good. Small amounts of inorganic nitrogen and total phosphorus were found, indicating the source of these nutrients is natural.

In response to the Deepwater Horizon oil spill of 2010, EPA monitored air, water and sediment along the affected coastline and bays from Louisiana to Florida. Sediment samples were collected and analyzed for Nickel (Ni), Vanadium (V), and oil related organic compounds. In the four bays in the Florida Panhandle: Pensacola, Choctawhatchee, St. Andrew and Apalachicola Florida bays, results indicated that the overall, organic and metal contaminant levels were minimal and overall sediment quality was good.

6.1.8 Hazardous Material. The USACE Emergency Management site files were examined for potential hazardous material sites adjacent to the project site. No known hazardous materials are stored on or near the project site.

6.1.9 Biological Resources.

6.1.9.1 Aquatic Environment.

6.1.9.1.1 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).* Important commercial and recreational fishes, which feed on these invertebrates or on aquatic primary producers, would include: striped mullet *(Mugil cephalus),* spotted seatrout *(Cynoscion nebulosus),* sand seatrout *(Cynoscion arenarius*), red drum *(Sciaenops ocellata),* black drum *(Pogonias cromis),* silver perch *(Bairdiella chrysura*), Atlantic croaker *(Micropogon undulates*), spot *(Leiostomus xanthurus*), southern king *(Menticirrhus saxatilis*), southern flounder *(Paralichthys lethostigma*), Gulf flounder *(Paralichthys albigutta*), Gulf menhaden *(Brevoortia patronus*), striped mullet *(Mugil cephalus*), Florida pompano *(Trachinotus carolinus*), and Spanish mackerel *(Scomberomorus maculates).* The freshwater lakes and rivers located throughout the project area include species, such as white and channel catfish (*Ictalurus punctatus*), yellow bullheads (*Ictalurus natalis*), largemouth bass (*Micropterus salmoides*), numerous sunfish and pickerel. The migratory Alabama shad and skipjack herring can also be expected throughout various reaches of the project.

Microinvertebrate populations are dictated by substrate type, temperature, salinity and biological factors, they therefore vary significantly throughout the vicinity of the project. Studies in the Apalachicola Bay complex indicate that predominate species in the spring months tend to be *Mediomastus ambiseta, Heteromastus filiformis, Ampelisca vadorum, Hargeria rapax,* and *Grandidierella bonnieroids.* In the summer and fall months, *Steblospio benedicti and Hypaneola florida* tend to dominate. It is important to note that all listed species, as well as less prevalent species, are present year-round in various numbers as these species are non-motile in nature.

6.1.9.1.2 Oyster Resources. 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 and about 9% of the landings from the entire Gulf of Mexico (ORARAB 2012).

Oyster beds in the East Bay-Apalachicola Bay complex are scattered throughout the central portion of Apalachicola Bay area and near the John Gorrie Bridge which is in close proximity to the proposed dredging project. See Figures 4 and 5 for a location of the oyster beds in the vicinity of the project site. Production on the commercial bars has been estimated at between 400 and 1,200 bushels/acre/year. Because of the relatively mild temperatures in the area, oyster growth is continuous throughout the year and has been estimated to be among the fastest in the U.S.

Typical harvestable oysters, those larger than three inches, have been known to be produced from spat in as little as 39 weeks. The spawning season is also one of the longest in the U.S., generally lasting from April through October with peaks from May to June and August. The

usual pattern in Apalachicola Bay requires approximately 18 months from planting clutch, clean shell, to commercial harvest. The Department of Agriculture and Consumers Services (DACS) has been planting cultch in Apalachicola Bay since 1949 and estimates over 750 acres of bars have been constructed since then. Relaying programs moving oysters from closed and polluted areas to unpolluted areas, have also been in effect since 1982.

Recent observations and sampling of oyster populations on the primary oyster producing reefs in Apalachicola Bay during July 2012 indicated that oyster populations were depleted over most of the reef areas sampled and that surviving oyster populations are severely stressed. This poor condition was the result of combination of environmental factors and fishery practices. Analysis and observations further suggested that Tropical Storm Debby (June 2012) was only a minor contribution factor to the overall poor condition of oyster resources and confirmed evidence and prolonged drought condition, continuing low river discharge rates, high oyster drill population, and intensive harvesting were adversely affecting oyster population in the bay (ORARAB 2012).

Because of the abundance of cavities and food and the optimal conditions on oyster bars, they provide a significant habitat for a variety of organisms. Organisms inhabiting the oyster bars include mussel, mud crabs, flat crab, horse oyster, gastroposds , blennies, and toadfish. This is only a partial list and does not include commercially important temporary residents or transitory organisms such as shrimp, crab and fish. The oyster-associated community varies somewhat due to the salinity regime, which is the most important limiting factor on the bar itself. Salinity levels too high or low will cause significant oyster mortality. Also, over the past 100 years, hurricanes and floods continue to cause problems for the oyster bars in Apalachicola Bay (A River Meets Bay 2008).

6.1.9.1.3 Submerged Aquatic Vegetation. Communities of submerged vegetation for this stretch of coast occur within shallow protected waters where bottom conditions and light penetration provide suitable habitat. Seagrass beds in Apalachicola Bay and western St. George Sound are restricted to the shallow lagoon portions of Dog and St. George Islands and are dominated by *H. wrightii*, *Gracilaria spp*., and *S. filirorme* (USFWS, 1984). More recent seagrass surveys conducted by the Corps of Engineers in 2009, found *Halodule wrightii* along the shallow sandy shoals near the mouth of the Apalachicola river and *V. Americana* in the brackish reaches of the Apalachicola River along the river banks. There does not appear to be any SAVs within the Eastpoint navigation channel or the proposed disposal area but there are some within the vicinity of the project site. See Figure 5 for a location of potential sea grass beds.

6.1.9.2 Terrestrial Environment. The Florida Panhandle typically contains a large percentage of natural pine flatwoods, planted pine plantations, and scrub. Beach and dune vegetation include a wide variety of shrubs and sea oats. Most of the dunes within the vicinity of the project area are generally associated with high-energy shorelines and are continuously shifting and sparsely vegetated. In areas where dunes are stable, plants such as sea oats *(Uniola paniculat*a) and dune elder *(Iva imbricat*a) usually establish on the seaward side. On the backside, myrtle oak *(Q. myrtifoli*a), greenbriar *(Smilax auriculat*a), and saw palmetto are characteristic species. Marsh habitats are commonly located near the mouths of the rivers and along the brackish water shorelines in the project vicinity. Characteristic plants include needlerush *(Juncus roemerianu*s),

sawgrass *(Cladium jamaicens*e), cattails *(Typha sp*p.), giant reed *(Phragmites communi*s), arrowhead *(Sagittaria lancifoli*a), saltmarsh cordgrass *(Spartina alternifloro*a), saltmeadow cord grass *(S. paten*s), giant cutgrass *(Zizaniopsis miliance*a), pickerel weed *(Pontederia cordat*a), and softstem bulrush *(Scirpus validu*s) (NWF WMD, 1997).

Terrestrial wildlife that may be found within the project area consists of a wide variety of birds, mammals, reptiles and amphibians. Some of the highest diversity of reptiles and amphibian groups in the U.S. exists within the region. 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.

6.1.9.2.1 Shorebirds

Various shorebirds can be found throughout the project area. The most commonly found species within the vicinity of the project site are listed in Table 1 below.

Table 1. Common Shorebird Species in Project Area

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

6.1.9.3 Essential Fish Habitat. Essential Fish Habitat (EFH) is defined in the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) as "those waters and substrates necessary to fish for spawning, breeding, feeding or growth to maturity". The Gulf of Mexico Fishery Management Council in accordance with the MSFCMA (PL 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. The designation and conservation of EFH seeks to minimize adverse effects on habitat caused by fishing and non-fishing activities. The Gulf of Mexico Fishery Management Plans (2012) identifies EFH in the project area to be inter-tidal wetlands, submerged aquatic vegetation, non-vegetated bottoms, shell reefs and the estuarine water column. Major fisheries landed along the Gulf Coast include red drum, mullet, croaker, shrimp, blue crab, and oyster. Table 2 provides a list of the species that National Marine Fisheries Service (NMFS) manages under the federally implemented Fishery Management Plan. Habitat associated with these species include estuarine areas, such as estuarine emergent wetlands, seagrass beds, algal flats, and mud, sand, shell and rock substrates. The habitat within the vicinity of the project consists of estuarine waters, shell, sand, and silt substrate, estuarine emergent wetlands, seagrass beds, and oyster reefs.

The proposed action will not significantly affect coastal habitat identified as EFH in the project area because most of the impacts will be temporary in nature. Species identified to be present within the project area are motile and will likely exit the area upon initiation of dredging and placement operations. However, since the proposed project involves constructing a new 26 acre sediment placement area adjacent to the existing west breakwater, there will be permanent impacts to this area. Previously shallow open-water areas will be built-up to elevations ranging from +1 to -2 MLLW within the containment area which will make conditions favorable for the establishment of submerged aquatic vegetation, wetland vegetation and marsh creation. Based on an overall assessment of the project, USACE, Mobil District found the impacts to fisheries resources associated with the proposed project would not have a long term adverse effect on EFH. Compliance with EFH procedures is being initiated through publication of this EA, public notice and official letter to NMFS.

Table 2: Fishery Management Plans and Managed Species for the Gulf of Mexico area.

GULF OF MEXICO FISHERY MANAGEMENT COUNCIL (NMFS 2010)

Shrimp Fishery Management Plan
- brown shrimp - *Farfantepenaeus aztecus*
- pink shrimp - *F. duorarum*
- royal red shrimp - *Pleoticus robustus*
- white shrimp - *Litopenaeus setiferus*

Red Drum Fishery Management Plan
- red drum - *Sciaenops ocellatus*

Reef Fish Fishery Management Plan
- almaco jack – *Seriola rivoliana*
- anchor tilefish - *Caulolatilus intermedius*
- banded rudderfish – *S. zonata*
- blackfin snapper - *Lutjanus buccanella*
- blackline tilefish - *Caulolatilus cyanops*
- black grouper- *Mycteroperca bonaci*
- blueline tilefish – *C. microps*
- cubera snapper – *L. cyanopterus*
- dog snapper – *L. jocu*
- dwarf sand perch - *Diplectrum bivittatum*
- gag grouper - *M. microlepis*
- goldface tilefish – *C. chrysops*
- goliath grouper - *Epinephelus itajara*
- gray snapper – *L. griseus*
- gray triggerfish - *Balistes capriscus*
- greater amberjack – *S. dumerili*
- hogfish - *Lachnolaimus maximus*
- lane snapper - *Lutjanus synagris*
- lesser amberjack - *S. fasciata*
- mahogany snapper – *L. mahogoni*
- marbled grouper – *E. inermis*
- misty grouper – *E. mystacinus*
- mutton snapper – *L. analis*
- Nassau grouper – *E. striatus*
- queen snapper - *Etelis oculatus*
- red hind - *Epinephelus guttatus*
- red grouper – *E. morio*
- red snapper - *L. campechanus*
- rock hind – *E. adscensionis*
- sand perch - *Diplectrum formosum*
- scamp grouper - *M. phenax*
- schoolmaster – *L. apodus*
- silk snapper – *L. vivanus*
- snowy grouper – *E. niveatus*
- speckled hind - *E. drummondhayi*
- tilefish - *Lopholatilus chamaeleonticeps*
- vermilion snapper - *Rhomboplites aurorubens*
- Warsaw grouper – *E. nigritus*
- wenchman - *Pristipomoides aquilonaris*
- yellowedge grouper *E .lavolimbatus*
- yellowfin grouper – *M. venenosa*
- yellowmouth grouper – *M. interstitialis*
- yellowtail snapper - *Ocyurus chrysurus*

Stone Crab Fishery Management Plan FL
- stone crab - *Menippe mercenaria*
- gulf stone crab – *M. adina*

Spiny Lobster Fishery Management Plan
- spiny lobster - *Panulirus argus*
- slipper lobster - *Scyllarides nodife*

Coral and Coral Reef Fishery Management Plan
- varied coral species and coral reef communities comprised of several hundred species

Coastal Migratory Pelagic Fishery Management Plan
- cobia - *Rachycentron canadum*
- king mackerel – *Scomberomorus cavalla*
- Spanish mackerel - *S. maculatus*

Species in the Fishery but Not in the Mgt Unit
- cero – *Scomberomorus regalis*
- little tuny – *Euthynnus alletteratus*
- dolphin – *Coryphaena hippurus*
- bluefish – *Pomatomus saltatrix (Gulf of Mexico only)*

6.1.9.4 Threatened and Endangered Species. A list of the federally protected species under the jurisdiction of the U.S. Fish and Wildlife Service (USFWS) and NOAA Fisheries Service for Franklin county Florida are shown in Table 3.

Table 3. T&E Species in Franklin County, Florida		
Species	**Scientific Name**	**Status**
Fish		
Gulf sturgeon	*Acipenser oxyrhynchus desotoi*	TCH
Amphibians & Reptiles		
Green sea turtle	*Chelonia mydas*	E
Loggerhead sea turtle	*Caretta caretta*	T
Kemp's ridley sea turtle	*Lepidochelys kempii*	E
Leatherback sea turtle	*Dermochelys comacea*	E
Flatwoods salamander	*Ambystoma cingulatum*	TCH
Hawksbill turtle	*Eretomchelys imbricata imbricata*	E
Eastern indigo snake	*Drymarchon corais couperi*	T
Birds		
Red-cockaded woodpecker	*Picoides borealis*	E
Piping plover	*Charadrius melodus*	TCH
Bald eagle	*Haliaeetus leucocephalus*	BGEPA
Plants		
Telephus spurge	*Euphorbia telephioides*	T
Mammals		
West Indian manatee	*Trichechus manatus*	E
Blue whale	*Balaenoptera musculus*	E
Finback whale	*Balaenoptera physalus*	E
Humpback whale	*Megaptera novaeangliae*	E
Sei whale	*Balaenoptera borealis*	E
Sperm whale	*Physeter macrocephalus*	E

The federally listed species that may be found within the vicinity of the project area include: loggerhead sea turtle (*Caretta caretta*), green sea turtle (*Chelonia mydas*), leatherback sea turtle (*Dermochelys coriacea*), Gulf sturgeon *(Acipenser oxyrinchus desotoi)*, piping plover (*Charadrius melodus*), West Indian manatee (*Trichechus manatus)*, red-cockaded woodpecker (*Picoides borealis*), wood stork (*Mycteria americana*), eastern indigo snake (*Drymarchon corais couperi*), and flatwoods salamander (*Ambystoma cingulatum*). A review of the listed plant and whale species for the project vicinity indicated a low likelihood of occurrence of listed species

within the project area. In addition, the bald eagle (*Haliaeetus leucocephalus)* is protected under the Bald and Golden Eagle Protection Act.

The following is a detailed review of the species listed above:

Loggerhead Sea Turtle (*C. caretta*)

The loggerhead sea turtle is a medium to large turtle. Adults are reddish-brown in color and generally 31 to 45 inches in shell length with the record set at more than 48 inches. Loggerheads weigh between 170 and 350 pounds with the record set at greater than 500 pounds. Young loggerhead sea turtles are brown above and whitish, yellowish, or tan beneath, with three keels on their back and two on their underside.

Loggerhead sea turtles occur throughout the temperate and tropical regions of the Atlantic, Gulf of Mexico, Pacific, and Indian Oceans. This species may be found hundreds of miles out to sea, as well as in inshore areas such as bays, lagoons, salt marshes, creeks, and the mouths of large rivers. Loggerhead turtles feed primarily on sea urchins, sponges, squid, basket stars, crabs, shrimp, and a variety of mollusks. Their strong beak-like jaws are adapted for crushing thick-shelled mollusks. Although loggerhead sea turtles are primarily bottom feeders, they also eat jellyfish and mangrove leaves obtained while swimming and resting near the sea surface. As loggerheads mature, they travel and forage throughout near shore waters until their breeding season, when they return to the nesting beach areas. The majority of mature loggerheads appear to nest on a two or three year cycle. This species nests within the U.S. from Texas to Virginia, although the major nesting concentrations are found along the Atlantic coast of Florida, Georgia, South Carolina, and North Carolina. Nesting in the northern Gulf outside of Florida occurs primarily on the Chandeleur Islands in Louisiana and to a lesser extent on adjacent Ship, Horn, and Petit Bois Islands in Mississippi (Ogren, 1977). Ogren (1977) reported a historical reproductive assemblage of sea turtles, which nested seasonally on remote barrier beaches of eastern Louisiana, Mississippi, and Alabama.

Loggerhead sea turtles are considered turtles of shallow water. Juvenile loggerheads are thought to utilize bays and estuaries for feeding, while adults prefer waters less than 165 feet deep (Nelson 1986). Aerial surveys suggest that loggerheads (benthic immature and adults) in U.S. waters are distributed in the following proportions: 54% in the southeast U.S. Atlantic, 29% in the northeast U.S. Atlantic, 12% in the eastern Gulf of Mexico, and 5% in the western Gulf of Mexico. During aerial surveys of the Gulf of Mexico, the majority (97%) of loggerheads were seen off the east and west coasts of Florida (Fritts 1983). Most were observed around mid-day near the surface, possibly related to surface basking behavior (Nelson 1986).

Green Sea Turtle (*C. mydas*)

The green sea turtle is mottled brown in color. The carapace is light or dark brown. It is sometimes shaded with olive, often with radiating mottled or wavy dark markings or large dark brown blotches. This species is considered medium to large in size for sea turtles with an average length of 36 to 48 inches. Its weight ranges from about 250 to 450 pounds. The upper surfaces of young green turtles are dark brown, while the undersides are white.

Although green sea turtles are found worldwide, this species is concentrated primarily between the 35° North and 35° South latitudes. This species migrates often over long distances between feeding and nesting areas (Carr and Hirth 1962). During their first year of life, green sea turtles are thought to feed mainly on jellyfish and other invertebrates. Adult green sea turtles prefer an herbivorous diet frequenting shallow water flats for feeding (Fritts et al., 1983). Adult turtles feed primarily on seagrasses, such as *T. testudinum*. This vegetation provides the turtles with a high fiber content and low forage quality (Bjorndal 1981a). In the Gulf of Mexico, principal foraging areas are located in the upper west coast of Florida (Hirth 1971). Nocturnal resting sites may be a considerable distance from feeding areas, and distribution of the species is generally correlated with grassbed distribution, location of resting beaches, and possibly ocean currents (Hirth 1971).

Historically in the U. S., green sea turtles have been known to nest in the Florida Keys and Dry Tortugas. Yet, these turtles primarily nest on selected beaches along the coast of eastern Florida. In the southeastern U.S., nesting season is roughly June through September. Nesting occurs nocturnally at 2, 3, or 4-year intervals.

Leatherback Sea Turtle (*D. coriacea*)

The leatherback sea turtle is the largest of all sea turtles. It may reach a length of about 7 feet and weigh as much as 1,600 pounds. The carapace is smooth and gray, green, brown and black in color. The plastron is yellowish white. Juveniles are black on top and white on the bottom.

This species is highly migratory and is the most pelagic of all sea turtles (NMFS and USFWS 1992). They are commonly found along continental shelf waters (Pritchard 1971; Hirth 1980; Fritts et al. 1983). Leatherbacks are found in temperate waters while migrating to tropical waters to nest (Ross 1981). Distribution of this species has been linked to thermal preference and seasonal fluctuations in the Gulf Stream and other warm water features (Fritts et al., 1983). General decline of this species is attributed to exploitation of eggs (Ross, 1981).

Leatherbacks feed mainly on pelagic soft-bodied invertebrates, such as jellyfish and tunicates. Their diet may also include squid, fish, crustaceans, algae, and floating seaweed. Highest concentrations of these prey animals are often found in upwelling areas or where ocean currents converge.

Nesting of leatherback sea turtles is nocturnal with only a small number of nests occurring in the U.S. in the Gulf of Mexico (Florida) from April to late July (Pritchard 1971; Fuller 1978; Fritts et al. 1983). Leatherbacks prefer open access beaches possibly to avoid damage to their soft plastron and flippers. The Pacific coast of Mexico supports the world's largest known concentration of nesting leatherbacks. There is very little nesting in the U.S. (Gunter 1981).

Gulf Sturgeon *(A. oxyrhynchus desotoi)*

The NMFS 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. Adults are 71-95 inches in length, with adult females larger than adult males. The skin is scaleless, brown dorsally and pale ventrally and imbedded with 5 rows of bony plates.

Adult fish are bottom feeders, eating primarily invertebrates, including brachiopods, insect larvae, mollusks, worms and crustaceans. Gulf sturgeons are anadromous, with reproduction occurring in freshwater. Most adult feeding takes place in the Gulf of Mexico and its estuaries. The fish return to breed in the river system in which they hatched. Spawning occurs in areas of deeper water with clean (rock and rubble) bottoms. River systems where the Gulf sturgeons are known to be viable include the Mississippi, Pearl, Escambia, Yellow, Choctawhatchee, Apalachicola, and Suwannee Rivers, and possibly others.

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 Units 13 Apalachicola Bay and in the vicinity of Unit 6 Apalachicola River.

Unit 6 Apalachicola River – Unit 6 encompasses 174 river miles within the main stem of the Apalachicola and Brother Rivers and the Apalachicola distributaries of the East River, Little St. Marks River, and St. Marks River. This unit provides spawning and resting habitat and young-of-the-year and juvenile feeding habitat for the Apalachicola River Gulf sturgeon subpopulation (68 FR 13395).

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. 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.

Piping Plover (*C. melodus*)

The piping plover is a small, pale-colored North American shorebird. The bird's light sand-colored plumage blends in with the sandy beaches and shorelines that are its primary habitat. Historically, piping plovers bred across three geographic regions. These regions include: the U.S. and Canadian Northern Great Plains from Alberta to Manitoba and south to Nebraska; the Great Lakes beaches; and the Atlantic coastal beaches from Newfoundland to North Carolina. Generally, piping plovers favor open sand, gravel, or cobble beaches for breeding. Breeding sites are generally found on islands, lake shores, coastal shorelines, and river margins.

Birds from all three populations build their nests in the north but spend the winter along the south Atlantic and Gulf coasts, sometimes arriving as early as mid-July. Piping plovers winter in coastal areas of the U.S. from North Carolina to Texas. They also winter along the coast of eastern Mexico and on Caribbean islands from Barbados to Cuba and the Bahamas. Piping plovers begin arriving on the wintering grounds in early July, with some late nesting birds arriving in September. A few individuals can be found on the wintering grounds throughout the year, but sightings are rare in June and early July.

Piping plovers feed along beaches and intertidal mud and sand flats. Primary prey for piping plovers includes worms, various crustaceans, insects, and occasionally bivalve mollusks.

The primary constituent elements essential for the conservation of the wintering plovers are those habitat components that support foraging, roosting, sheltering and the physical features necessary to maintaining the natural processes that support these habitat components. The primary constituent elements are found in geologically dynamic coastal areas that support or have the potential to support intertidal beaches and flats and associated dune systems. Important components of intertidal flats include sand and or mud flats with no or sparse emergent vegetation.

West Indian Manatee (*T. manatus)*

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 and Hayek 1986). A few may remain year-round in Cumberland Sound, southeastern Georgia, where factory warm-water outfalls allow survival of colder winter months (Reeves et al. 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 (O'Shea and 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.

Red-Cockaded Woodpecker (*P. borealis*)

The species typically inhabit open, mature pine woodlands, rarely deciduous or mixed pine-hardwoods located near pine woodlands. The optimal habitat is characterized as a broad savanna with a scattered overstory of large pines and a dense groundcover containing a diversity of grass and shrub species midstory vegetation is typically sparse or absent (Hooper et al. 1991).

Foraging occurs in a diversity of forested habitat types that includes pines of various ages as well as some hardwood-dominated habitats. Most foraging appears to take place on older pine trees or in open pine habitats (Lennartz ,1988).

The six largest populations are in the Apalachicola National Forest (Florida), North Carolina Sandhills, Francis Marion National Forest (South Carolina), Kisatchie National Forest (Louisiana), Eglin Air Force Base and Blackwater State Forest (Florida), and Red Hills hunting plantations in southern Georgia (James, 1995).

Bald Eagle (*H. leucocephalus*)

The Bald eagle is no longer listed as threatened or endangered, but is still protected under the Bald and Golden Eagle Protection Act. Bald eagles roost in winter. The preferred roosts are in conifers or other sheltered trees. Perching in deciduous and coniferous trees is equally common in other areas (e.g., Bowerman et al. 1993). Their breeding habitat commonly include areas close to coastal areas, bays, rivers, lakes, or other bodies of water that reflect the general availability of primary food sources (Campbell et al. 1990). Typical nest trees include pines, spruces, firs, cottonwoods, oaks, poplars, and beeches. They tend to avoid developed areas with nearby human activity (Buehler et al. 1991). The same nest may be used year after year, or may alternate between two nest sites in successive years.

Eastern Indigo Snake (*D. couperi*)

The current range of population includes southern Georgia and Florida. The snake is very rare or extirpated in Alabama, Mississippi, and South Carolina. Recent reintroductions have been made in Florida, Alabama, Georgia, South Carolina, and Mississippi. One reintroduced population may be thriving in Covington County, Alabama. Habitat includes high pinelands (sandhills, scrub,

etc.), flatwoods, and most types of hammock in Florida and southeastern Georgia. The species is found near wetlands and in association with gopher tortoise burrows. It prefers pineland habitats that are maintained by periodic fires. The species requires relatively large tracts of suitable terrestrial habitat. When inactive, it often occupies tortoise burrows, stump holes, or land crab burrows.

Flatwoods Salamander (*A. cingulatum*)

The salamander is native to the southeastern U.S. Coastal Plain. Post-larval individuals inhabit mesic longleaf pine (*Pinus palustris*), wiregrass (*Aristida stricta*) flatwoods and savannas. The terrestrial habitat is best described as topographically flat or slightly rolling wiregrass-dominated grassland having little to no midstory and an open overstory of widely scattered longleaf pine. Low-growing shrubs, such as saw palmetto (S*erenoa repens*), gallberry (I*lex glabra*) and blueberries (V*accinium spp*.), co-exist with grasses and forbs in the groundcover. Groundcover plant diversity is usually very high. The underlying soil is typically poorly drained sand that becomes seasonally inundated.

Critical habitat for the flatwoods salamander is located in the northern portion of Franklin County, Florida. This area is outside the project area and would not be affected by the project activities.

6.2 Social Economic Environment.

6.2.1 Economic Activity. 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).

6.2.2 Land Use. The location of the proposed action is within the coastal region of northwest Florida. Lands in this area include national, state and counties 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 (Northwest Florida WMD, 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 (Northwest Florida WMD, 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 2,350 people.

6.2.3 Cultural Resources. The Eastpoint navigation project was authorized by Congress and completed more than 50 years ago. The existing channel was constructed and operated prior to

the enactment of the National Historic Preservation Act (NHPA), which was signed into law in 1966. The Mobile District has previously considered the effect that continued use and maintenance of the navigation channel (to include the existing upland disposal area) may have on historic properties. This project was consulted with the Florida Department of State Division of Archives, History and Records Management in 1982. A "no effect" on historic properties was concurred on by the agency (letter dated October 27, 1982). However, since the proposed project will be using a new 26 acre placement area that is adjacent to west breakwater, the Mobile District will coordinate with the State Historic Preservation Officer (SHPO) during the recertification process to obtain concurrence.

7.0 ENVIRONMENTAL CONSEQUENCES OF THE PROPOSED ACTION

7.1 Introduction. This section will discuss the impacts of implementing the preferred alternative on resources of significance in the area, since no other alternatives are reasonable or feasible to attain need for the action.

7.2 Physical Environment.

7.2.1 Climate. The preferred alternative is not anticipated to have any impacts on the existing climatic conditions with the project vicinity.

7.2.2 Topography, Geology and Soils. The preferred alternative would have no significant adverse impacts on the existing topography, geology or soils within the project vicinity. The project would result in the removal of substrate as needed to a design depth of -6 feet MLLW with 2 feet of advanced maintenance and 2 feet of allowable overdepth within the project area for a total of 10 feet. The placement of the dredged material would result in alterations to the topography and geology within the designated 26 acre containment area. A previously open-water area would be built up to elevations ranging from +3 to -2 MLLW within the containment area.

7.2.3 Hydrology and Water Resources. The proposed action would not alter drainage or circulation patterns within the region. Furthermore, it is not anticipated that the project will significantly alter local flow patterns or rates.

7.2.4 Air Quality. The proposed action would have no significant long-term effect on air quality. Air quality in the immediate vicinity of the dredge and other equipment would be slightly affected for a short period of time by the fuel combustion and resulting engine exhausts. The exhaust emissions are considered insignificant in light of prevailing breezes and when compared to the existing exhaust fumes from other vessels using the project.

The project area is in attainment with the NAAQS parameters. The proposed action would not affect the attainment status of the project area or region. A State Implementation Plan conformity determination (42 U.S. Code 70569(c)) is not required since the project area is in attainment for all criteria pollutants.

7.2.5 Noise. Noise from the dredge and other job-related equipment is expected to increase during the proposed operations in the project vicinity. There is potential short-term disruption of foraging, roosting, or nesting behavior in birds on the breakwater during dredging and placement activities. There are potential short-term impacts to foraging behavior in marine organisms in the vicinity of sediment removal and placement operations. Any impacts would be limited to the duration of the restoration activities. 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.

7.2.6 Water Quality. Under the proposed action little to no impacts to water resources is anticipated. Short-term impacts would involve increased, localized turbidity and decreased dissolved oxygen associated with dredging and disposal operations. However, these impacts are expected to be temporary and minimal. During dredging and disposal operations, turbidity levels would be monitored to ensure compliance with the state water quality certification from the FDEP. All FDEP guidelines shall be maintained during the proposed activity.

7.2.7 Hazardous Material. No known hazardous, toxic or radioactive waste concerns are known to exist within the confines of the project. The proposed action would not generate any hazardous, toxic or radioactive wastes. The dredging contractor would be required to secure and properly dispose of any hazardous materials or wastes associated with the dredging and disposal operation.

7.2.8 Sediment Quality. No adverse impacts to sediment quality are likely to occur from the disposal and placement of dredged material from maintenance operations. The dredged material within the channel has been tested several times and is suitable for placement within the designated containment area. The composition of dredged material removed from the channel is similar to the composition at the disposal sites, due to their close proximity to the channel. Therefore, the project would not adversely affect sediment quality or change sediment bottoms significantly.

7.2.9 Biological Resources.

7.2.9.1 Aquatic Environment.

7.2.9.1.1 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 within-bay disposal operations, but should repopulate within 6 to 12 months upon project completion (Culter and Mahadevan, 1982), (Saloman et al., 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. However, larval and juvenile stages of these forms may not be able to avoid the activity due to their limited mobility. However, significant losses to the benthic and pelagic fauna are not anticipated due to the phased nature of the channel maintenance and small area (percentage wise) of ecosystem that will be affected at a given point in time.

7.2.9.1.2 Oyster Resources. There are a significant amount oyster reefs in Apalachicola Bay that are near the vicinity if the project site but not within the footprint of the project. Prior coordination with the Florida Department of Agriculture was made during the FDEP permitting process. This coordination effort has been successful in allowing the project to continue while avoiding impacts to the existing oyster reefs in the project vicinity. This coordination effort will continue once we are close to beginning the project. To insure avoidance of any adverse impacts to oyster reefs, a fully contained placement area will be constructed to prevent any turbidity impacts to the oysters. In addition, the special conditions referenced in the FDEP permit to protect oyster resources will be adhered to (Enclosure 1).

7.2.9.1.3 Submerged Aquatic Vegetation. Historic survey data obtained from the FDEP have indicated the possible existence of submerged aquatic vegetation (SAV) near the proposed placement area (Figures 3 and 5). Before the proposed placement area is constructed, the Mobile District will field verify that the area is free of SAVs. To ensure that increased turbidity is not occurring within the seagrass beds turbidity measurements will be measured during dredging operations at the seagrass edge and compared to background readings. In areas where seagrasses must be crossed by a pipeline between the channel and placement area, best management practices will be utilized such as the use of plastic to float pipe or collars to raise the pipe over the seagrass beds. Prior to any dredging or placement activities within these areas, proper coordination with all appropriate agencies will be made, and suitable disposal plans would be determined as to avoid adverse impacts to these productive and vital environments.

7.2.9.2 Terrestrial Environment. As a result of this evaluation, no adverse impacts to the terrestrial ecosystem located in the vicinity of project were identified. Dredged material placement activities would occur within pre-approved contained disposal area. Containment dikes would be constructed around the proposed placement area so there will be minimal impacts to the terrestrial environment.

7.2.9.2.1 Shorebirds. No adverse impacts to nesting migratory shorebirds are anticipated with the implementation of the project. If nesting is evident, construction activities would be halted until coordination with the Florida Fish and Wildlife Commission (FWC) has been made, and a buffer zone is established. In addition, low likelihood sites would be inspected prior to dredging and the Florida FWC would be contacted if nesting is identified and appropriate actions would be taken to avoid adverse impacts.

7.2.9.3 Essential Fish Habitat. The Gulf of Mexico Fishery Management Council in accordance with the Magnuson-Stevens Fishery Conservation and Management Act (PL 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 (2012) identifies EFH in the project area to be intertidal wetlands, submerged aquatic vegetation, 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 due to the fact that impacts will be temporary in nature. Species identified to be present within the project area are motile and will likely exit the area upon initiation of dredging operations. The exception is non-motile benthic invertebrates that will be impacted by

the project. As previously mentioned, impacts to these species will be negligible as they will re-colonize the area within a few months. Based on the minor nature of the project in relation to impacts to fisheries resources the overall impact is considered negligible.

7.2.9.4 Threatened and Endangered Species. The USACE, Mobile District believes that the majority of the threatened and endangered species listed for Franklin County (Table 4) are not likely to be in the project area. For example, the red-cockaded woodpecker prefers old-growth pines and pine/hardwood stands. This habitat does not occur in the area. The wood stork is primarily associated with freshwater habitats for nesting, roosting, foraging, and rearing. The USACE, Mobile District is not aware of any nesting by the species in the project area. The Eastern indigo snake is largely restricted to the vicinity of sandhill habitats occupied by Gopher tortoises. The frosted flatwoods salamander inhabits slash and longleaf pine flatwoods that have a wiregrass floor and scattered wetlands. No such habitats occur in this area. In summary, the marine open-water setting and developed shoreline environment is not suitable habitat for the above mentioned species.

Past consultation has focused on the West Indian manatees, Gulf sturgeon, sea turtles, and piping plovers. The USACE, Mobile District has historically agreed to implement "Standard Manatee Construction Conditions" during similar dredging projects in Florida. The Mobile District believes that if these measures are implemented there will be no adverse impact to West Indian manatees. In addition, it is anticipated these species would avoid the construction areas due to noise and activity. The loggerhead, Kemp's ridley, hawksbill, leatherback, and green sea turtles could possibly be impacted because they may be found in the area; however, if they are in the vicinity, it is believed that they will avoid the area while dredging and disposal operations are in progress.

Dredged material would be removed from the channel by a hydraulic pipeline or mechanical dredge and placed in a confined disposal area. This method is preferable in terms of turbidity reduction and minimizing the potential impact to wildlife, primarily manatees and sea turtles. In addition, no effects are anticipated with the use of a hydraulic cutter-head dredge, as they are not known to impact sea turtles and 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 and amended in 2005 and 2007. Impacts associated with construction activities should be temporary and isolated to actual construction limits.

The project area is not in the vicinity of the critical habitat for piping plover. The USACE, Mobile District believes these motile species would avoid the dredging and placement area during operations and that the site does not provide suitable habitat for this species.

The project is located inside of Gulf sturgeon critical habitat Unit 13 (Figure 7) which encompasses a total of 168,773 acres. Gulf sturgeon has been documented by sightings, incidental captures, and telemetry studies throughout Apalachicola Bay and St. George Sound. This unit provides winter feeding and migration habitat for juvenile and adult species from the Apalachicola River Gulf sturgeon subpopulation. The proposed project would impact up to 46

acres (20 acres dredging and 26 acres containment cell). Some of the impacts will be temporary and others will be permanent within the footprint of the containment cell. In the unlikely event a Gulf sturgeon is in the area, the proposed action would not adversely affect the species due to the mobile species likely avoiding the project area during dredging and disposal operations. No significant impacts to these species are anticipated.

Based on this assessment the USACE, Mobile District has determined that no federally-protected species or designated critical habitat were likely to be adversely affected as a result of the proposed project. To reduce the likelihood of take the USACE, Mobile District has agreed to incorporate the following conditions during operations and maintenance dredging of Eastpoint navigation channel:

- Dredging will be conducted utilizing hydraulic or mechanical methods reducing the potential for entrainment of Gulf sturgeon and sea turtles associated with hopper dredges.
- During active hydraulic dredging operations the cutterhead will be located within the substrate.
- If threatened or endangered species are observed during dredging operations, the operation will be temporarily stopped until the species has left the area.
- Standard Manatee Construction Conditions will be followed during operations.

The proposed project will be coordinated with USFWS and the NMFS PRD during the USACE, Mobile District recertification process.

Gulf sturgeon Critical Habitat

The project area includes estuarine critical habitat in Unit 13 (Figure 7). Therefore, it may contain some of the primary constituent elements (PCE)s: water quality, abundant prey items, flow regime, sediment quality, and safe unobstructed migratory pathways. Potential impacts on the five PCEs are analyzed below.

Water Quality: Potential water quality impacts as a result of dredging and disposal were considered. Dredging and placement are expected to create some degree of turbidity in excess of the natural condition. Impacts from sediment disturbance during these operations are expected to be temporary, minimal and similar to conditions experience during past routine operation and maintenance of the channel. Suspended particles will settle out within a short time frame, with no measurable effects on water quality. No measurable changes in temperature, salinity, pH, hardness, oxygen content or other chemical characteristics are expected.

During dredging and placement operations, turbidity levels would be monitored, to ensure compliance with state water quality certification. The USACE, Mobile District Corps does not expect measurable impacts to Gulf sturgeon critical habitat as a result of water quality impacts related to the proposed action.

Migratory Pathway: Neither the placement of dredged materials, 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.

Sediment Quality: The area that will be utilized for dredged material placement is far removed from potential sources of contamination and have minute probability as a carrier of contaminates. The composition of dredged material removed from the channel is similar to the composition at the disposal sites, due to their close proximity to the channel. Therefore, the project would not adversely affect sediment quality or change sediment bottoms, which is a PCE for gulf sturgeons.

Flow regime: The proposed action is the maintenance dredging of an existing Federal navigation project. Dredging is limited to the authorized channel dimensions of - 6 feet MLLW, with up to two feet of over dredging and two feet of advanced maintenance dredging, for a maximum depth of -10 feet MLLW. No alterations to the length, width, or depth of the project will be made. Therefore, the USACE, Mobile District concludes that the proposed action will not adversely modify the flow regime (i.e., the magnitude, frequency, duration, seasonality, and rate-of-change of fresh water discharge over time) necessary for normal behavior, growth, and survival of the species.

Prey Abundance: Unit 13 provides foraging habitat for the Gulf sturgeon. Upon exiting the rivers where the Gulf sturgeon have spent the summer months foraging sparingly in freshwater, the species initially concentrate around the mouths of the rivers, lakes and bays; they then disperse into nearshore areas and continue to forage. Due to the presence of prey and the belief that sturgeon feed heavily upon entering the estuary, it is likely that some Gulf sturgeon may forage in the action area.

Dredging and placement would impact epibenthic crustaceans and infaunal polychaetes within the navigation channel and contained placement area. These impacts are primarily short-term in nature, consisting of a temporary loss of benthic invertebrate populations in the project footprint of the channel and placement areas. The total area comprises less than 0.01% of estuarine area within Unit 13. The materials that will be removed (dredged) from the project area are homogenous with those that will remain in the channel and, therefore, no alteration of habitat composition is occurring. Due to the fact that similar habitat is expected to be present pre- and post-dredging, it is anticipated that the benthic biota in the dredging areas will have the ability to rapidly recover and re-colonize.

Observed rates of benthic community recovery, after placement of dredged material, range from a few months to several years. The relatively species-poor benthic assemblages associated with low salinity estuarine sediments can recover in periods of time ranging from a few months to approximately one year, while the more diverse communities of high salinity estuarine sediments may require a year or longer. Placement of materials similar to ambient sediments (e.g., sand on sand or mud on mud) has been shown to produce less severe impacts in contrast to placement of dissimilar sediments, which generally results in more severe, long-term impact. Deposition of dredged material in thin layers (<10 cm; 4 in) can minimize impacts by allowing many

populations of small, shallow-burrowing infauna with characteristically high reproductive rates and wide dispersal capabilities to recover quickly. Deposits greater than 20 to 30 cm (8 to12 in) generally eliminate all but the largest and most vigorous burrowers. Based on the similarities between the dredged material, the depth of disposal, erosion processes and the ambient sediments at the placement areas, it is anticipated that the benthic biota will have the ability to recover and re-colonize over time.

Table 4. Threatened & Endangered Species Determination of Effects for Franklin County

Species	Scientific Name	Status	Determination (species/CH)
Gulf sturgeon	*Acipenser oxyninchus desotoi*	Threatened	NLAA/NLAM
Piping Plover	*Charadrius melodus*	Threatened	NLAA/NE
Red cockaded woodpecker	*Picoides borealis*	Endangered	NLAA/NA
Wood stork	*Mycteria americana*	Endangered	NLAA/NA
Eastern indigo snake	*Drymarchon corais couperi*	Threatened	NLAA/NA
Frosted flatwood salamander	*Ambystoma cingulatum*	Threatened	NLAA/NA
Hawksbill sea turtle	*Eretmochelys imbricate*	Endangered	NLAA/NA
Leatherback sea turtle	*Dermochelys coriacea*	Endangered	NLAA/NA
Kemp's ridley sea turtle	*Lepidochelys kempii*	Endangered	NLAA/NA
Green sea turtle	*Chelonia mydas*	Endangered	NLAA/NA
Loggerhead sea turtle	*Caretta caretta*	Threatened	NLAA/NA
West Indian manatee	*Trichechus manatus*	Endangered	NLAA/NA
Blue whale	*Balaenoptera musculus*	Endangered	NLAA/NA
Finback whale	*Balaenoptera physalus*	Endangered	NLAA/NA
Humpback whale	*Megaptera novaeangliae*	Endangered	NLAA/NA
Sei whale	*Balaenoptera borealis*	Endangered	NLAA/NA
Sperm whale	*Physeter macrocephalus*	Endangered	NLAA/NA

NA = not applicable **NE** = no effect
NLAA = not likely to adversely affect **NLAM** = not likely to adversely modify
Ref:http://ecos.fws.gov/tess_public/countySearch!speciesByCountyReport.action?fips=12037

7.3 Social Economic Environment

7.3.1 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 a variety of water-dependent facilities.

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

7.3.3 Cultural Resources. 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 NHPA, which was signed into law in 1966. Since then, the Mobile District consulted with the Florida Department of State Division of Archives, History and Records Management in 1982 for the construction of the 5000 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). However, since the proposed project will be using a new 26 acre dredged material placement area, the Mobile District will coordinate with the State Historic Preservation Officer (SHPO) and District Cultural Resource Officer during the recertification process to obtain concurrence.

7.4 Cumulative Effects Summary. Cumulative impacts are those impacts on the environment that result from the incremental impacts 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. This section analyzes the proposed dredging maintenance project as well as any connected, cumulative, and similar existing and potential actions occurring in the area surrounding the site.

The cumulative impacts of development and other activities throughout the watershed that have acted in combination to degrade the health and productivity of much of the entire Apalachicola Bay system, thus diminishing the human benefits the system provides. Areas of inland and coastal wetlands within the Bay and other important habitats have been and continue to be lost throughout the watershed. These include tidal marshes, seagrass and other benthic communities. Much of this loss is due to the cumulative impacts of development and is not directly recoverable. This project has the potential to improve environmental quality by providing favorable conditions for additional marsh creation and sea grass establishment. Therefore, the proposed dredging and placement activities are not projected to have any significant adverse cumulative effects. Also, no future projects were known to be dependent upon this action.

7.5 Regulatory Requirements.

7.5.1 Water Quality Certification. Water Quality Certification under Section 401 of the Clean Water Act was granted from the State of Florida for the proposed action on April 5, 2013 (19-0270106-003-E1). The Federal navigation channel will be dredged to a depth consistent with those previously described and authorized in the water quality permit. All FDEP guidelines shall be maintained during the proposed activity (Enclosure 1).

7.5.2 Coastal Zone Management Act Considerations. Coastal Zone Consistency under Section 307 of the Coastal Management Act was granted from the State of Florida for the proposed action on April 5, 2013 (19-0270106-003-E1). The proposed action has been determined to be consistent with the Florida Coastal Program to the maximum extent practicable (Enclosure 1).

7.6 Protection of Children. On April 21, 1997, President Clinton issued Executive Order (EO) 13045, *Protection of Children from Environmental Health Risks and Safety Risks*. This EO directs each federal agency to ensure that its policies, programs, activities and standards address disproportionate risks to children that result from environmental health risks or safety risks. These risks arise because:

- Children's neurological, immunological, digestive, and other bodily systems are still developing.
- Children eat more food, drink more fluids, and breath more air in proportion to their body weight than adults.
- Children's size and weight might diminish their protection from standard safety features.
- Children's behavior patterns make them more susceptible to accidents because they are less able to protect themselves.

Therefore, to the extent permitted by law, and appropriate and consistent with each agency's mission, the President directed each federal agency to:

- Make it a high priority to identify and assess environmental health risks and safety risks that might disproportionately affect children.
- Ensure that the agency's policies, programs, and standards address disproportionate health risks to children that result from environmental health risks or safety risks.

Examples of risks to children include increased traffic volumes and industrial or production-oriented activities that would generate substances or pollutants that children might come into contact with or ingest.

The potential environmental health or safety risks to children resulting from the Proposed Action are addressed in Section 6. The proposed action complies with EO 13045, "Protection of Children from Environmental Health Risks and Safety Risks," and does not represent disproportionately high and adverse environmental health or safety risks to children in the United States. The project area is not used disproportionately by children.

7.7 Environmental Justice. On February 11, 1994, the President issued EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations*.

The Environmental Justice (EJ) Policy requires agencies to incorporate into NEPA documents and analysis of the environmental effects of their proposed programs on minorities and low-income populations and communities. EJ is defined by the USEPA as "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including racial, ethnic, or socioeconomic group, should bear the disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of Federal, state, local, and tribal programs and policies."

The effects of the proposed action on local populations and the resources used by local groups, including minority and low-income groups, are addressed in Section 6. The proposed action complies with EO 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," and does not represent disproportionately high and adverse human health or environmental effects on minority populations and low-income populations in the United States. The project area is not used disproportionately by these populations.

7.8 Coordination. Under the agency and public coordination guidelines of the NEPA process, numerous persons have been contacted for input on the proposed action. The general public will be notified of the proposed action via public notice. Copies of the public notice will be made available to Federal and state agencies and the interested public for a 30-day review period. Comments on the proposed action are requested in writing by the end of that 30-day period. Comments on the action will be considered prior to a decision on the action.

8.0 LIST OF AGENCIES, INTERESTED GROUPS AND PUBLIC CONSULTED.

Apalachicola National Estuarine Research
Engineering Research and Development Center
Florida Department of Agriculture
Florida Department of Environmental Protection
Florida Marine Research Institute
Florida State Historic Preservation Office
Gulf of Mexico Fishery Management Council
National Oceanic and Atmospheric Administration Fisheries
National Register of Historic Places
Northwest Florida Water Management District
U.S. Department of the Interior, Fish and Wildlife Service, Panama City, FL
U.S. Environmental Protection Agency, Region 4

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Figure 1. Location Map of Eastpoint, Florida Navigation Project

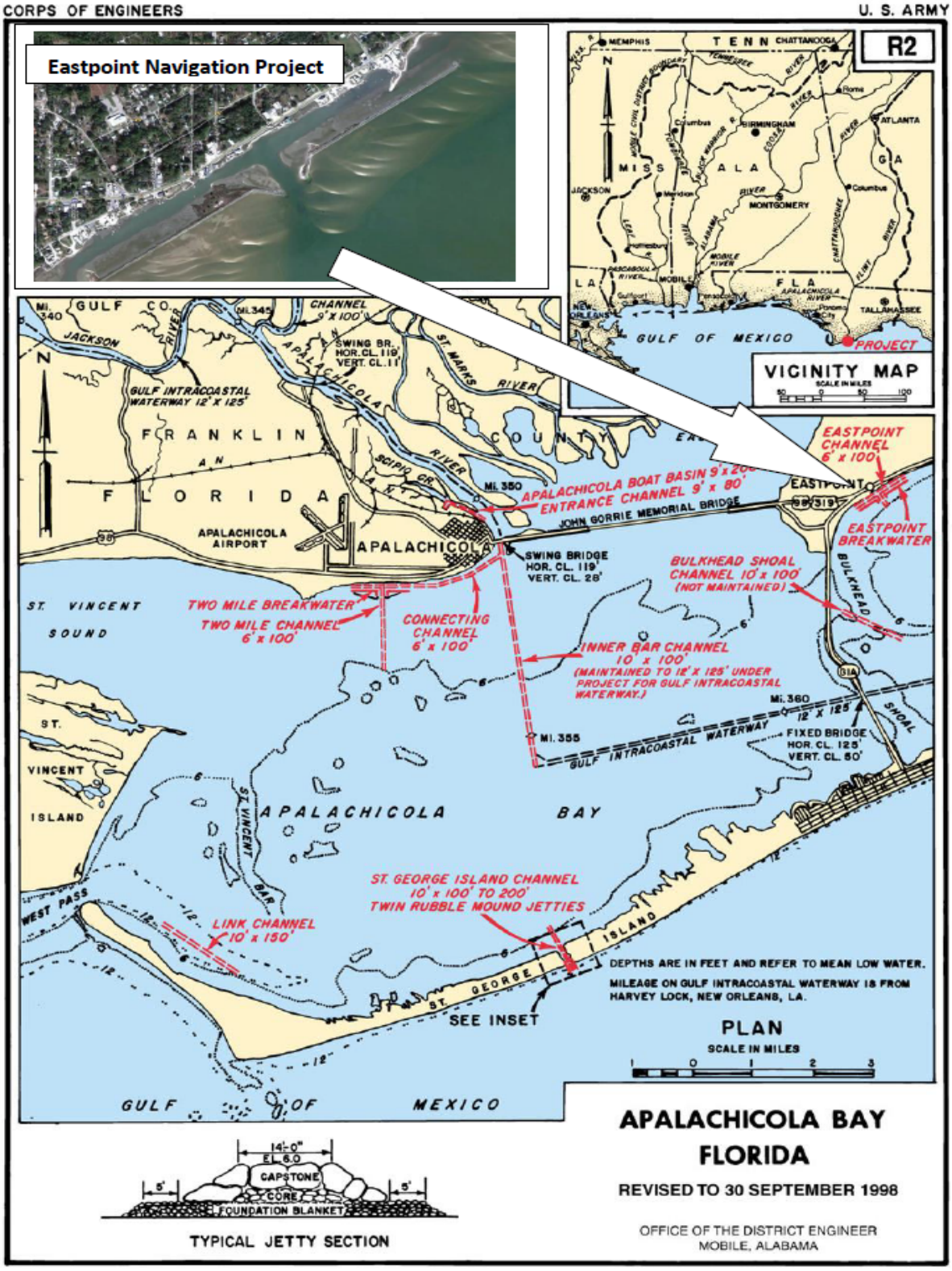
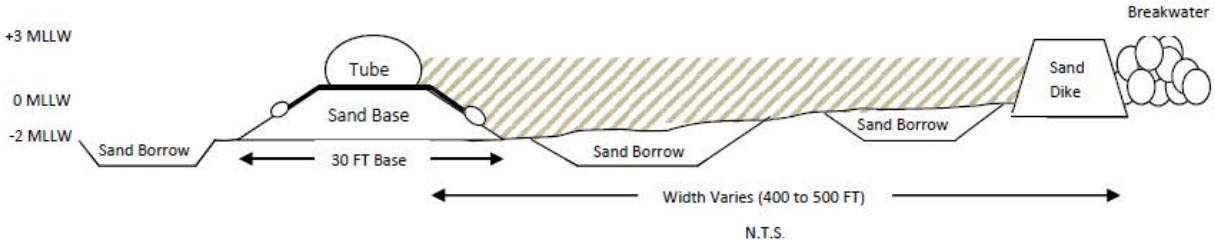


Figure 2. Eastpoint Navigation Project Dredged Material Placement Area Map

Eastpoint Plan View

- 3,000 LF Geotubes (30 Ft circumference tubes)
- 2,500 LF Sand Dikes
- 450 LF Turbidity Curtains
- 1,200 LF Sand Spur Dikes (top elevation +3 MLLW, base width 40 FT)

Eastpoint Cross Section



- Sand Base constructed to approx +0.5 MLLW
- Perimeter Tube and Sand Dike top elevation approx +3.0 MLLW

Figure 3. Bay Floor and Geographic Features of Apalachicola Bay

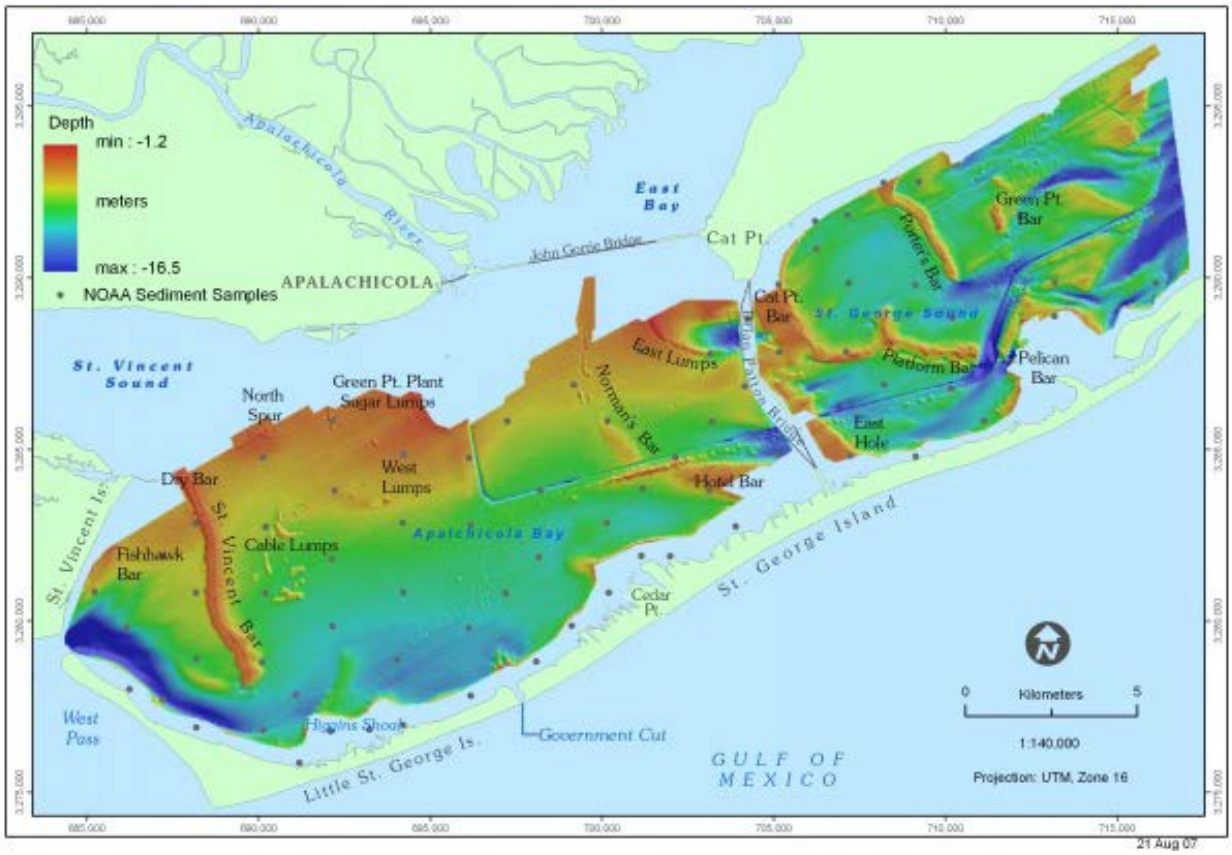


Figure 4. Oyster Resources Location Vicinity of Project Site

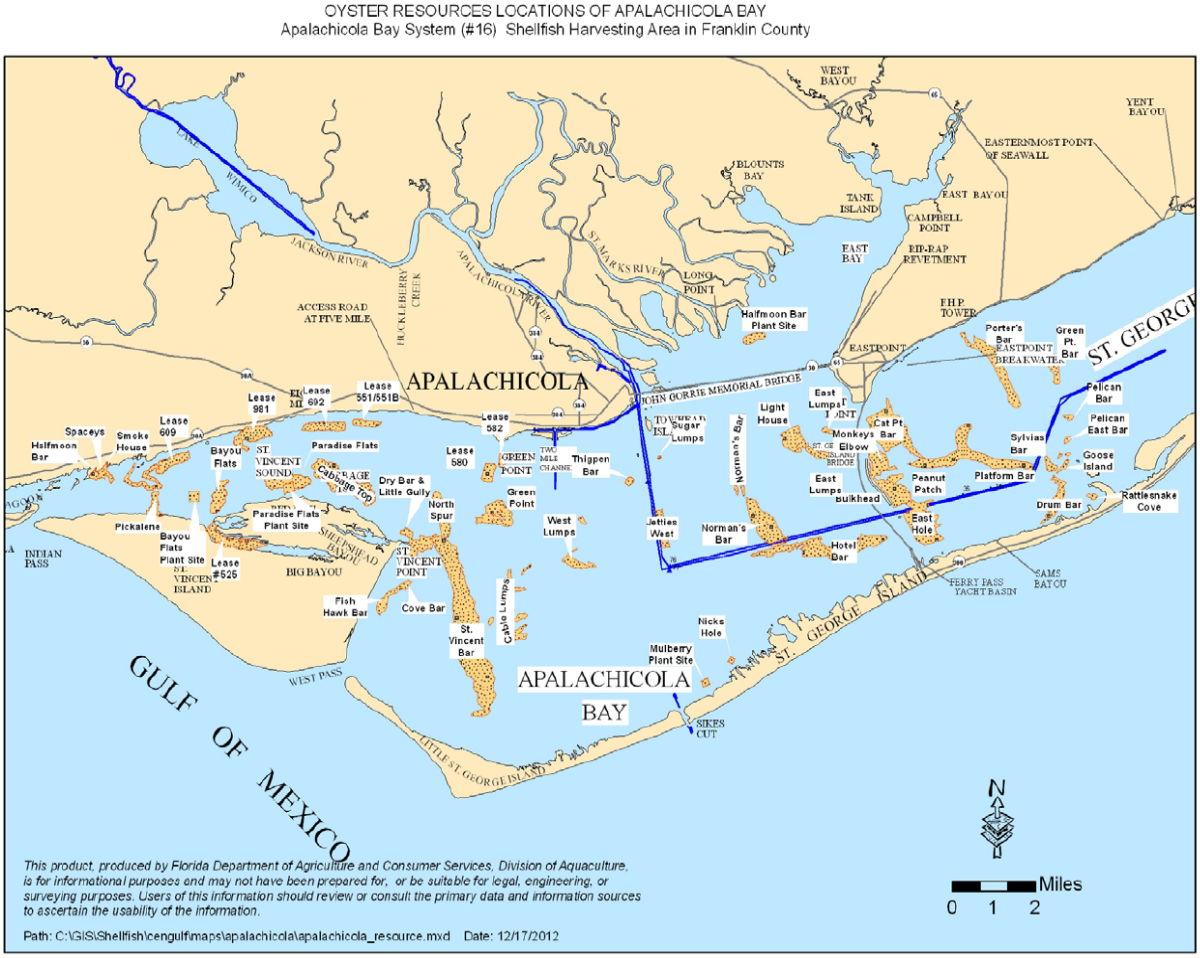


Figure 5. Potential Location of Submerged Aquatic Vegetation and Oyster Reefs

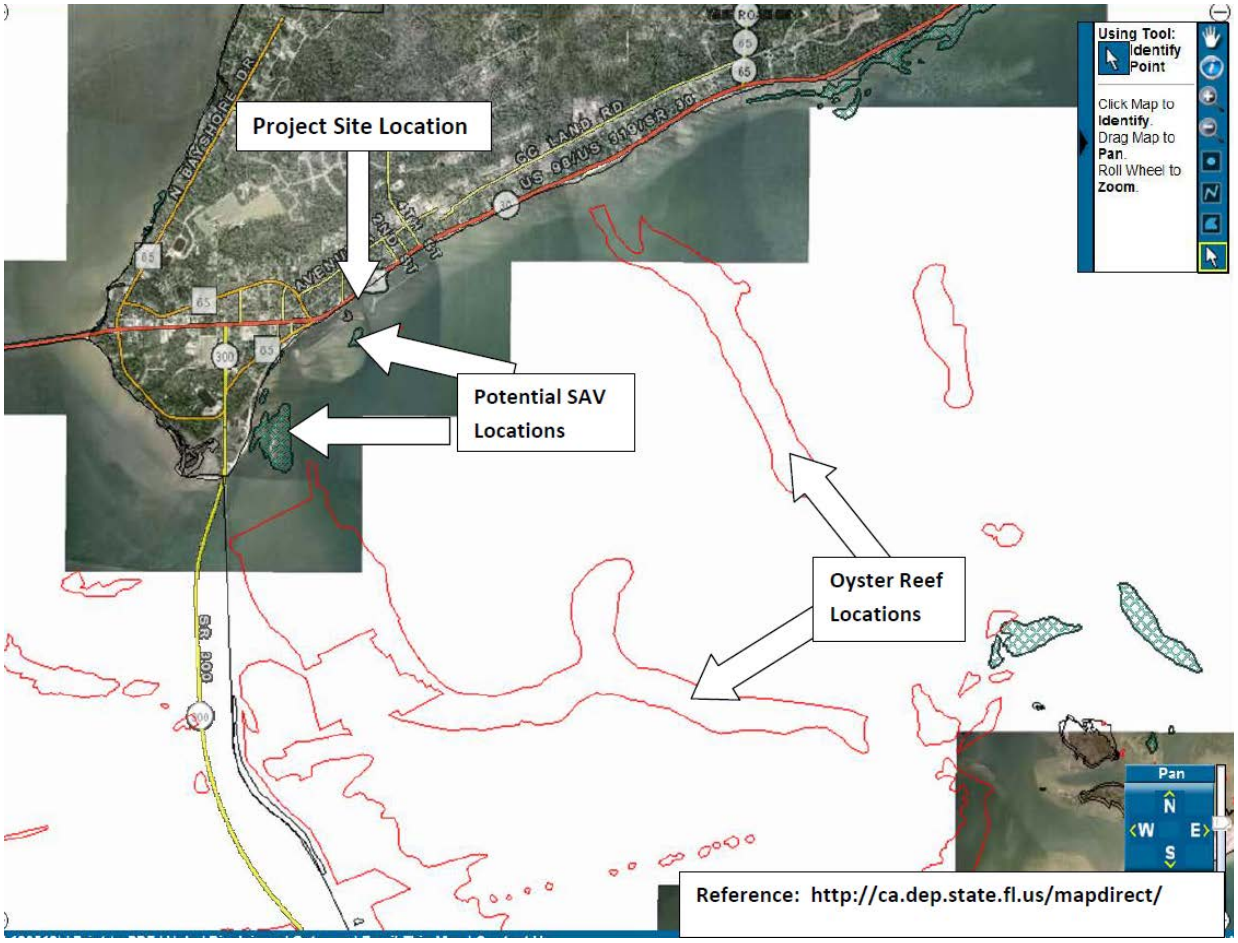


Figure 6. Unit 6 and 6.1 Apalachicola River Gulf Sturgeon Critical Habitat Maps

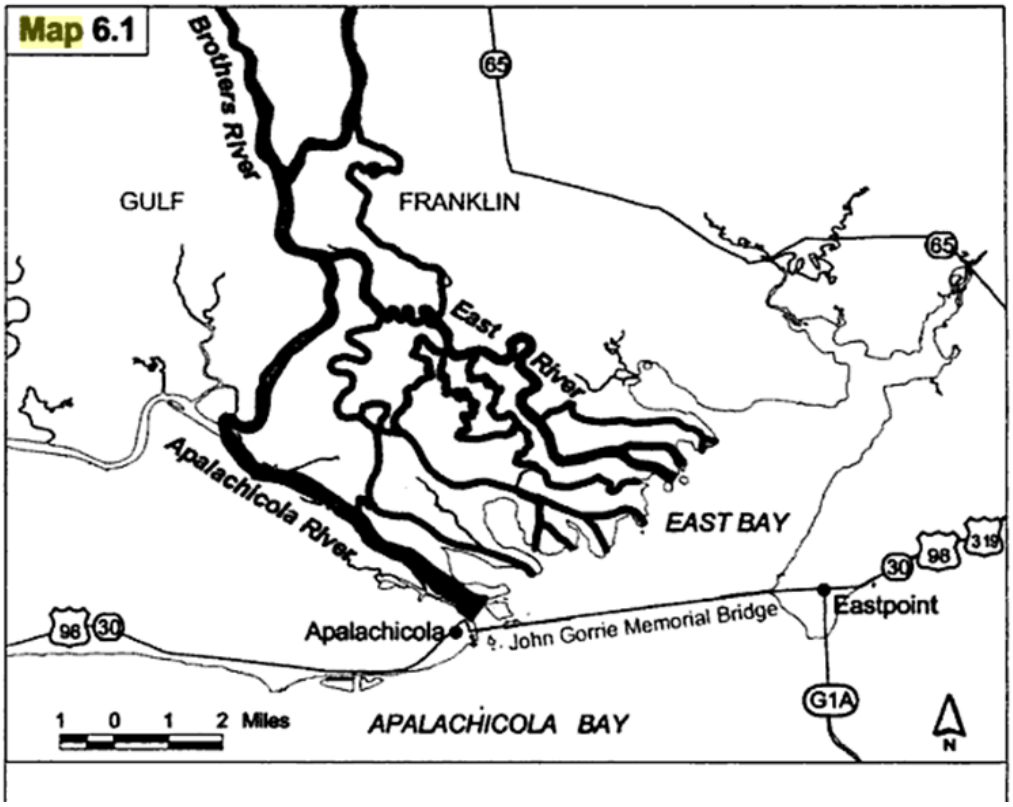
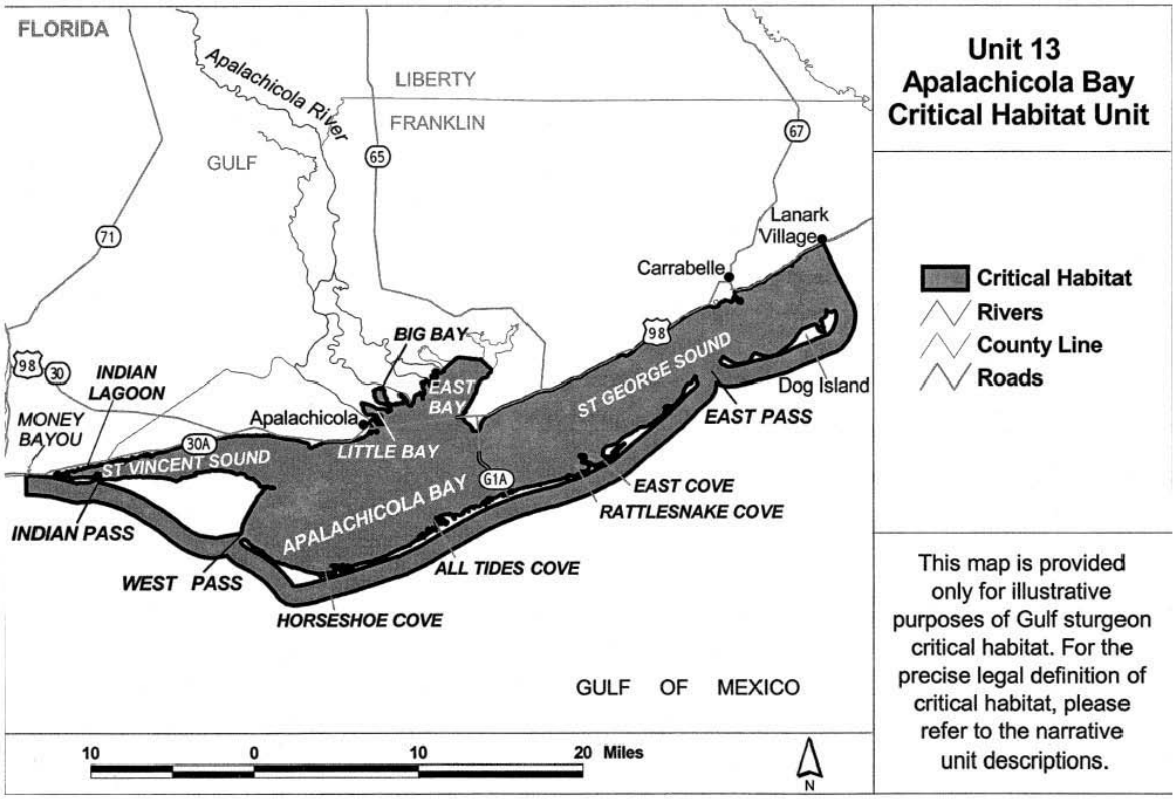


Figure 7. Unit 13 Apalachicola Bay Gulf Sturgeon Critical Habitat Map



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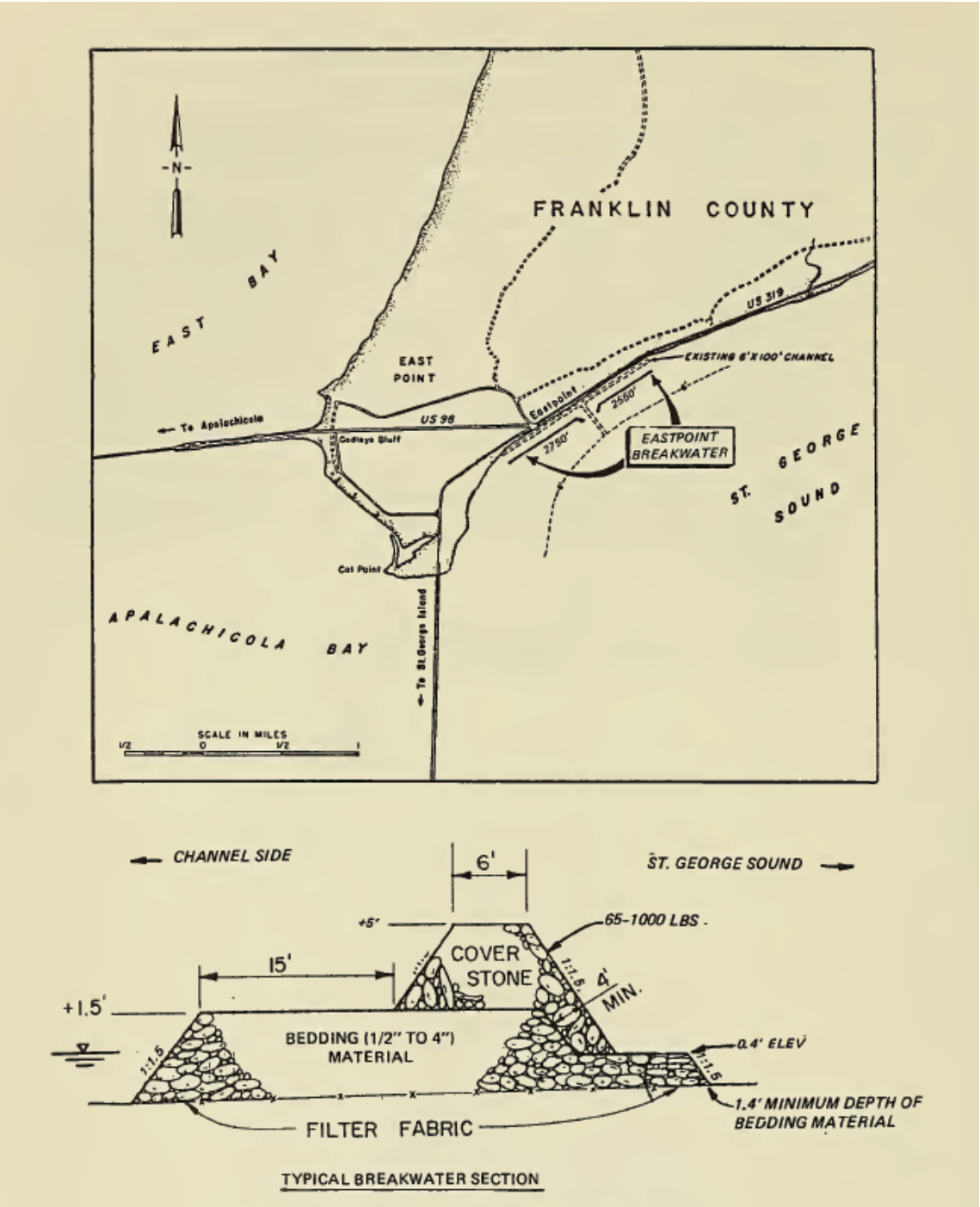

List of Enclosures

EA-Enclosure 1 – FDEP Environmental Resource Permit State-owned Submerged Lands Authorization – Granted USACE Authorization dated April 5, 2013.

EA-Enclosure 2 – USACE/FDEP Joint Public Notice FP13-AB03-05 Eastpoint Navigation Channel Continued Operation and Maintenance Dredging Franklin County, Florida dated ?? July 2013.

EA-Enclosure 3 – TBD

EA-Enclosure 4 – TBD

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
160 W GOVERNMENT ST., SUITE 308
PENSACOLA, FL 32502-5740

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Eastpoint Navigation - Dredge

Point of Contact:
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Environmental Resource Permit
State-owned Submerged Lands Authorization – Granted

U.S. Army Corps of Engineers Authorization –
Separate Corps Authorization Required

Franklin County
Permit No.: 19-0270106-003-EI

Permit Issuance Date: April 05, 2013
Permit Construction Phase Expiration Date: April 05, 2018

Consolidated Environmental Resource Permit
and Sovereignty Submerged Lands Authorization

Permittee/Grantee: U.S. Army Corps of Engineers, Mobile District
Permit No: 19-0270106-003-EI

PROJECT LOCATION

The activities authorized by this Permit and sovereignty submerged lands authorization are located in and around the existing Eastpoint Federal Navigation Channel and Eastpoint breakwaters south of Eastpoint, Florida, south of Sections 31 and 32, Township 8S, Range 6W in Franklin County, at Latitude 29° 44' 10.2502, Longitude -84° 52' 19.3766".

PROJECT DESCRIPTION

The permittee is authorized to hydraulically dredge the Eastpoint Federal Navigation Channel to a depth of 6 feet plus 2 feet of advanced maintenance and 2 feet allowable overdepth for a total of -10 feet mean low water, and dispose of the approximately 244,000 cubic yards of dredged material in a 26-acre dredged material containment cell on the south side of the existing western Eastpoint breakwater. The dredged material containment cell will be constructed of a geotextile-fabric covered sand base, sand-filled geotubes, and sand dikes using sand from the bottom of St. George Sound adjacent to the sand structures as shown on the attached drawing. The elevation of the sand and geotube berms and sand dikes will be approximately +3 feet MLLW, and the base of the berms and sand dikes will be approximately 30-40 feet wide. The dredged material containment cell will be approximately 2,500 feet long and between 400 and 500 feet wide. The activities will occur over approximately 46 acres of sovereignty submerged lands (20 acres dredging, 26 acres dredged material containment cell). The project will be conducted within St. George Sound, a Class II Outstanding Florida Waterbody, Prohibited and Restricted for Shellfish Harvesting.

Authorized activities are depicted on the attached exhibits.

AUTHORIZATIONS

Eastpoint Navigation – Dredge

Environmental Resource Permit

The Department has determined that the activity qualifies for an Environmental Resource Permit. Therefore, the Environmental Resource Permit is hereby granted, pursuant to Part IV of Chapter 373, Florida Statutes (F.S.), and Rule 62-346, Florida Administrative Code (F.A.C.).

Sovereignty Submerged Lands Authorization

The activity is located on sovereignty submerged lands owned by the State of Florida. It therefore may also require authorization from the Board of Trustees of the Internal Improvement Trust Fund (Board of Trustees), pursuant to Article X, Section 11 of the Florida Constitution, and Section 253.77, F.S.

The Department acknowledges that maintenance dredging of a federal navigation channel falls within one of the federal powers listed in the Submerged Lands Act under 43 USC 1311(d) or 43 USC 1314, and, under those provisions, the U.S. Army Corps of Engineers (Corps) needs no authorization from the Board of Trustees to utilize sovereignty submerged lands for that activity. However, under the provisions of the Coastal Zone Management Act (16 USC 1451-1465), this activity requires Florida's concurrence with a determination of consistency with the sovereignty submerged lands provisions of Florida's approved Coastal Management Program prior to federal approval of the proposed activity. The State has determined that the activity is consistent with the sovereignty submerged lands provisions of Florida's approved Coastal Management Program.

As staff to the Board of Trustees under Sections 253.002, F.S., the Department has determined that the in-water dredged material disposal activity qualifies for and requires a public easement, as long as the work performed is located within the boundaries as described and is consistent with the terms and conditions herein.

The Permittee or designated local sponsor must apply for and obtain the public easement within one year of commencement of the activities authorized in this permit. The Department intends to issue the public easement upon satisfactory execution of the easement documents.

Federal Authorization
A copy of this permit has been sent to the U.S. Army Corps of Engineers (USACE). The USACE may require a separate permit. Failure to obtain any required federal permits prior to construction could subject you to enforcement action by that agency.

Coastal Zone Management
This permit also constitutes a finding of consistency with Florida's Coastal Zone Management Program, as required by Section 307 of the Coastal Management Act.

Water Quality Certification
This permit also constitutes a water quality certification under Section 401 of the Clean Water Act, 33 U.S.C. 1341.

Other Authorizations
You are advised that authorizations or permits for this project may be required by other federal, state or local entities including but not limited to local governments and homeowner's associations. This permit does not relieve you from the requirements to obtain all other required permits or authorizations.

The activity described may be conducted only in accordance with the terms, conditions and attachments contained in this document. Issuance and granting of the permit and authorizations herein do not infer, nor guarantee, nor imply that future permits, authorizations, or modifications will be granted by the Department.

PERMIT CONDITIONS
The activities described herein must be conducted in accordance with:

- **The Specific Conditions**
- **The General Conditions**
- **The limits, conditions and locations of work shown in the attached drawings**
- **The term limits of this authorization**

You are advised to read and understand these conditions and drawings prior to commencing the authorized activities, and to ensure the work is conducted in conformance with all the terms, conditions, and drawings. If you are utilizing a contractor, the contractor also should read and understand these conditions and drawings prior to commencing the authorized activities. Failure to comply with these conditions, including any mitigation requirements, shall constitute grounds for revocation of the Permit and appropriate enforcement action by the Department.

Operation of the facility is not authorized except when determined to be in conformance with all applicable rules and this permit/certification/authorization and sovereignty submerged lands authorization, as specifically described above.

SPECIFIC CONDITIONS

ALL ACTIVITIES

1. If the approved permit drawings conflict with the specific conditions, then the specific conditions shall prevail.

2. The permittee shall schedule a pre-construction meeting with the Department's compliance and enforcement staff to help ensure all permit requirements, conditions, and specific conditions are met. This meeting shall take place before commencement of any of the activities authorized by this permit. Please call (850) 595-8300 to schedule a meeting.

3. The construction phase expires at 11:59 p.m. on the date indicated on the cover page of this permit.

4. For emergencies involving a serious threat to the public health, safety, welfare, or environment, the emergency telephone contact number is **(800) 320-0519** (State Warning Point). The Department telephone number for reporting nonthreatening problems or system malfunctions is (850) 595-0663, day or night.

5. The mailing address for submittal of forms for the "Construction Commencement Notice", "As-Built Certification …", "Request for Conversion of Stormwater Management Permit Construction Phase to Operation and Maintenance Phase", or other administrative correspondence is Department of Environmental Protection, Submerged Lands and Environmental Resources Program, 160 W. Government Street, Pensacola, Florida, 32502.

6. All reports or notices relating to this permit shall be sent to the Department of Environmental Protection, Submerged Lands and Environmental Resources Program, 160 W

Government Street, Pensacola, FL 32502. Reports and notices may be sent electronically to Andrew.Joslyn@dep.state.fl.us.

CHANNEL DREDGING ACTIVITIES

7. Channel dredging activities shall be conducted only within the boundaries of the 100 foot wide Eastpoint Federal Navigation Channel in accordance with the attached permit drawings and shall not exceed the depths indicated in those drawings.

8. The dredged material containment cell shall be fully constructed, stable, and capable of functioning as proposed prior to commencement of channel dredging activities.

9. If during the progress of this project prehistoric or historic artifacts, such as pottery or ceramics, stone tools or metal implements, dugout canoes, or any other physical remains that could be associated with Native American cultures or early colonial or American settlement are encountered at any time within the project site area, the permitted project should cease all activities involving subsurface disturbance in the immediate vicinity of such discoveries. The permittee, or other designee, shall contact the Florida Department of State, Division of Historical Resources, Review and Compliance Section at (850) 245-6333 or (800) 847-7278, as well as the appropriate permitting agency office. Project activities should not resume without verbal and/or written authorization from the Division of Historical Resources. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, Florida Statutes.

10. If dredged material encroaches into adjacent waters of the state beyond the containment site limits identified in the attached permit drawings, the impacted areas shall be restored to their original contours and elevations. If the impacted areas were vegetated, they shall be replanted after recontouring, with vegetation of appropriate size and densities and species as is present in the adjacent areas. The restoration shall be completed within 30 days of completion of the dredging operation and the Department shall be so notified within the same 30 day period. Appropriate turbidity control measures shall be followed during the restoration work.

DREDGED SEDIMENT DISPOSAL

11. The permittee shall construct a dredged material containment cell of geotextile-fabric covered sand base, sand-filled geotubes, and sand dikes. The following requirements shall be met:
    a. Construction of the dredged material containment cell shall not adversely impact wetland areas outside of the limits of the containment cell.
    b. Sediment tubes shall be filled in place using sand from the bottom of St. George Sound adjacent to the sand structures.
    c. There shall be only one discharge point for effluent from dredged material deposited within the completed cell. Turbidity shall be monitored and controlled at the discharge point pursuant to Specific Conditions 24-33.

d. The discharge point and openings at the interior sand spur dikes shall be closed with weighted turbidity curtains with a maximum of 1 foot distance between the bottom of the curtain and the bottom of the waterbody, as shown in the attached drawing. The turbidity curtains shall remain in place until dredging is completed and turbidity levels in effluent from the discharge point is equal to background levels.

e. Elevation of the sand and geotube berms and sand dikes shall be approximately +3 feet MLLW, but shall not exceed +4 feet MLLW. Top elevation of containment berms shall be above water at all times to prevent escape of dredged material or turbid effluent into adjacent waters during dredge operations.

f. The base of the berms and sand dikes shall be approximately 30-40 feet wide. The finished dredged material containment cell shall be approximately 2,500 feet long and between 400 and 500 feet wide, and shall cover approximately 26 acres.

12. Prior to construction, Permittee shall conduct pre-construction assessments and sediment grain size analysis to ensure there is adequate sand depth within the proposed sand borrow areas to construct the sand structures as permitted. No more than 10% of the sediment in the sand borrow areas shall pass through a #200 sieve. If more than 10% of the sediment in the sand borrow areas passes through a #200 sieve, the Permittee shall meet with the Department to determine if further testing or project modifications to prevent excess turbidity are necessary, and the project may not commence without written authorization from the Department.

13. If existing emergent aquatic vegetation will be impacted by the proposed dredging, the permittee may relocate the vegetation into the dredged material containment cell in a manner that will promote vegetation growth and conversion to beneficial use.

14. Turbidity shall be monitored at the mixing zone boundary established in Specific Condition 24 during all permitted activities. If turbidity exceeds 29 NTUs above background levels outside of the mixing zone established in Specific Condition 24 at any time, the provisions of Specific Condition 32 shall apply, including installing additional turbidity curtains or other best management practices if necessary.

15. The permittee shall provide as-built drawings showing the location, total area, height of the structure, and final grade of fill to the Department within 30 days of project completion.

SHELLFISH CONDITIONS

16. Dredging and disposal operations should commence as soon as possible after January 1. Operations shall be scheduled to be completed as soon as practicable, but no later than 115 days after commencement, to minimize temporary closure time of nearby shellfish harvesting areas during the activities, and to minimize the impact to shellfish spawning in areas that open for shellfish harvesting on September 1.

17. At least 2 weeks prior to commencement of work, provide the following information to the Department of Agriculture and Consumer Services (DACS) at (850) 236-2200:

a. A definite start and stop date (used to notify oystermen of temporary zone closures)
b. Names, email addresses, and telephone numbers for:
   i. An Army Corps of Engineers contact person
   ii. A contractor contact person

18. Work shall not start on a Monday, due to difficulty of notifying oystermen of zonal closures at the beginning of a week. Tuesday – Friday start days are optimal.

19. The permittee or contractor shall immediately notify DACS of any schedule changes.

20. The permittee or contractor shall notify the Florida Fish and Wildlife Conservation Commission (FFWCC) using the 24 hour notification hotline (888) 347-4356 if any oystering activity is observed taking place in the Restricted and Prohibited area of the breakwater.

21. Class II surface water quality criteria outlined in Rule 62-302.530, F.A.C. shall not be exceeded outside of the mixing zone authorized in Specific Condition 24 at any time. If an exceedance does occur, work shall be stopped and the Department shall be notified immediately as described in Specific Condition 32.

22. Dredged material shall not be deposited in or within 1/8 mile of an Approved or Conditionally Approved shellfish harvesting area.

23. The permittee shall provide an adequate number of self-contained sanitary facilities (portable toilets) in upland areas during the activities to prevent contamination of nearby conditionally approved waters.

TURBIDITY CONDITIONS

24. A mixing zone for turbidity is granted with the following size and configuration constraint(s):

    a. The mixing zone shall extend no further than 150 meters from the limits of the dredged material containment cell shown in the attached drawing [Chapter 62-4.244(5)(c), F.A.C.].

25. The restricted mixing zone approved by the Department is located within "Outstanding Florida Waters". However, in accordance with Variance No. 19-270106-002-EV, issued on October 17, 2012, existing ambient water quality may be degraded for a period longer than 30 days because the Permittee has shown that construction cannot be completed within 30 days. Turbidity must not exceed 29 NTUs above background at the mixing zone boundary at any time.

26. Measurements must be acquired in adherence to the Department's Standard Operating Procedure (SOP) for field turbidity, available at the website:

http://www.dep.state.fl.us/water/sas/sop/sops.htm

27. Monitoring for turbidity shall be conducted twice daily, at least four hours apart, for the duration of the project. Sampling will commence prior to, but no more than 24 hours before initiation of any dredging or filling activities.

28. Turbidity compliance samples shall be taken at the boundary of the mixing zone as described in Specific Condition 24. The sampling site shall be established on a transect extending downcurrent from the turbidity source and shall be taken at the thickest part of the turbidity plume.

    Samples shall be collected from surface, mid-depth and one foot above bottom. Mid-depth samples are sufficient in water that is less than five feet deep. Sampling will be restricted to the axis of the visible plume. Samples will be collected at the intersection of the mixing zone boundary and a line parallel with the water current and extending from the source of turbidity if a plume is not visible.

    Background samples shall be collected 300 meters upcurrent from the mixing zone as described in Specific Condition 24. These samples will be collected at surface, mid-depth, and one-foot above bottom. The background site(s) will be marked by temporary buoys and shall be maintained for the duration of the sampling program; the background site(s) shall not be changed without specific written authorization by the Department. The Department recognizes that some variation in sampling location may occur due to tidal movement of the buoy(s).

    Samples shall be collected with a Kemmerer, Van Dorn or a similar sampler that is designed to collect in situ water samples. Samples shall be analyzed immediately after collection with a turbidimeter that produces results in Nephelometric measurements. The field sample results shall be accurately recorded to the precision capabilities (decimal place) of the instrument. Field turbidimeter results shall be rounded to the next whole number (ex. 15.23 NTUs shall be recorded; however the results shall be interpreted as 16.00 NTUs). If monitoring reveals turbidity levels greater than or equal to the turbidity limits contained in Specific Condition 21, the permittee shall cease all work pursuant to Specific Condition 28.

29. Turbidity monitoring reports shall be submitted to the Department each Monday following project commencement; reports shall include the permittee name and permit number. When submitting this information to the Department, please include, at the top of each page or as a cover page to the submittal: "This information is being provided in partial fulfillment of the monitoring requirements in Permit No. 19-0270106-003-EI." Failure to submit reports in a timely manner constitutes a violation of the permit and may be grounds for revocation. Turbidity monitoring reports may be submitted electronically to: Andrew.Joslyn@dep.state.fl.us.

30. Monitoring data shall contain the following information:

a. Permit number;
b. Dates of sampling and analysis;
c. A statement describing the methods used in collection and analysis of the samples;
d. A map showing the sampling locations, along with indicating the latitude and longitude;
e. Copies of the Quality Assurance/Quality Control log; and
f. A statement by the individual responsible for implementation of the sampling program concerning the authenticity, precision and accuracy of the data;

31. Monitoring reports shall also include the following information for each sample that is taken:

    a. Time of day samples taken;
    b. Depth of water body;
    c. Depth of sample;
    d. Tidal stage and direction of flow; and
    e. Antecedent weather conditions, including wind direction and velocity.

32. If monitoring reveals turbidity levels at the mixing zone boundary greater than or equal to 29 NTUs above background levels, the permittee shall take the following measures:

    a. Immediately cease all work contributing to the water quality violation. Work which may contribute to the violation shall not resume until corrective measures have been taken and turbidity levels have returned to acceptable levels; and
    b. Stabilize exposed soils contributing to the violation. Modify work procedures responsible for the violation, install additional turbidity containment devices, repair non-functioning turbidity containment devices; and
    c. Increase monitoring frequency to every 2 hours until turbidity levels are less than 29 NTUs above background levels. Interim samples collected following the violation (s) shall be collected in the same manner and locations as the routine monitoring. Operations may not resume until the water quality standard for turbidity has returned to less than 29 NTUs above background at the mixing zone boundary.
    d. The violation(s) shall be immediately reported to the Department at (850) 595-8300. The report shall include the description of the corrective actions being taken or proposed to be taken. The report shall be made to the Department as soon as normal business hours resume if violation(s) are noted after normal business hours, on holidays, or on weekends. A copy of the monitoring data sheets, which indicate violation(s), shall be forwarded immediately to the Department.

    Failure to report violation(s) or to follow correct procedures before resuming work shall constitute grounds for permit revocation and may subject the permittee to formal enforcement action.

33. Best management practices for erosion and turbidity control shall be implemented and maintained at all times during construction and operation of the permitted activity to prevent

siltation and turbid discharges in excess of State water quality standards for Class II waters pursuant to Chapter 62-302, F.A.C. The permittee shall be responsible for ensuring that erosion and turbidity control devices and procedures are inspected and maintained daily during all phases of construction authorized by this permit until all areas that were disturbed during construction are sufficiently stabilized to prevent erosion, siltation, and turbid discharges.

PUBLIC EASEMENT

34. The in-water dredged material containment site requires sovereignty submerged lands authorization in the form of a public easement. The Corps or designated local sponsor shall apply for and obtain a public easement for the dredged material containment areas within 1 year of commencement of the dredging activities. This provision is outlined in Section VIII, C of the approved Interagency Coordination Agreement executed by the Department and the Corps on February 28, 2006.

MANATEE CONDITIONS

35. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with, and injury to manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.

36. All on-site project personnel are responsible for observing water-related activities for the presence of manatees. All in-water operations, including vessels, shall be shutdown if a manatee comes within 50 feet of the operation. Activities shall not resume until every manatee has moved beyond the 50-foot radius of the project operation, or until 30 minutes has elapsed wherein a manatee has not reappeared within 50 feet of the operation. Animals shall not be herded away or harassed into leaving.

37. Any collision with or injury to a manatee shall be reported immediately to the FWC Hotline at 1-888-404-FWCC. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (904) 731-3336.

GENERAL CONDITIONS

1. This permit, including its general and specific conditions, must be construed in light of the February 28, 2006 Interagency Cooperative Agreement for Civil Works Projects (ICA) between the Department and the Corps. As recognized in the ICA, the Department has the authority to include reasonable conditions in this permit. All of the conditions in this permit, both general and specific, are enforceable to the extent sovereign immunity has been waived under 33 U.S.C. §§ 1323 and 1344(t). The ICA is incorporated herein by reference.

2. All activities approved shall be implemented as set forth in the drawings incorporated by reference and in compliance with the conditions and requirements of this document. The Corps shall notify the Department in writing of any anticipated changes in:

a. Operational plans;
b. Project dimensions, size or location;
c. Ability to adhere to permit condition;
d. Project description included in the permit;
e. Monitoring plans.

If the Department determines that a modification to the permit is required then the Corps shall apply for and obtain the modification. Department approval of the modification shall be obtained prior to implementing the change, unless the change is determined by the Department to reduce the scope of work from that authorized under the original permit, and will not effect compliance with permit conditions or monitoring requirements.

3. If, for any reason, the Corps does not comply with any condition of limitation specified herein, the Corps shall immediately provide the Department with a written report containing the following information:

   a. A description of and cause of the noncompliance;
   b. The period of noncompliance, including dates and times;
   c. Impacts resulting or likely to result from the non-compliance;
   d. Steps being taken to correct the non-compliance; and
   e. The steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

   Compliance with the provisions of this condition shall not preclude the Department from taking any enforcement action allowed under state law with respect to any non-compliance.

4. The Corps shall obtain any applicable licenses, permits, or other authorizations which may be required by federal, state, local or special district laws and regulations. Nothing herein constitutes a waiver or approval of other Department permits or authorizations that may be required for other aspects of the total project.

5. Nothing herein conveys to the Corps or creates in the Corps any property right, any interest in real property, any title to land or water, constitutes State recognition or acknowledgement of title, or constitutes authority for the use of Florida's sovereign submerged lands seaward of the mean high-water line or an established erosion control line, unless herein provided, and the necessary title, lease, easement, or other form of consent authorizing the proposed use has been obtained from the State.

6. Any delineation of the extent of a wetland or other surface water submitted as part of the application, including plans or other supporting documentation, shall not be considered specifically approved unless a specific condition of this authorization or a formal determination under Section 373.421(2), F.S., provides otherwise.

7. Nothing herein authorizes any entrance upon or activities on property which is not owned or controlled by the Corps or local sponsor, or conveys any vested rights or any exclusive privileges.

8. This document or a copy thereof, complete with all conditions, attachments, modifications, and time extensions shall be kept at the work site of the authorized activity. The Corps shall require the contractor to review this document prior to commencement of the authorized activity.

9. The Corps specifically agrees to allow Department personnel with proper identification, and reasonable times and in compliance with Corps specified safety standards access to the premises where the authorized activity is located or conducted for the purpose of ascertaining compliance with the terms of this document and with the rules of the Department and to have access to and copy any records that must be kept; to inspect the facility, equipment, practices, or operations regulated or required; and to sample or monitor any substances or parameters at any location reasonably necessary to assure compliance. Reasonable time may depend on the nature of the concern being investigated.

10. At least forty-eight (48) hours prior to the commencement of authorized activity, the Corps shall submit to the Department a written notice of commencement of activities indication the anticipated start date and the anticipated completion date.

11. Within a reasonable time after completion of construction activities authorized by this permit, the Corps shall submit to the Department a written statement of completion This statement shall notify the Department that the work has been completed as authorized and shall include a description of the actual work completed. The Department shall be provided, if requested, a copy of any as-built drawings required of the contractor or survey performed by the Corps.

If you have any questions about this document, please contact Heather Mason at 850-595-0608 or at Heather.Mason@dep.state.fl.us.

Executed in Escambia County, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

_____

Emile D. Hamilton
District Director
Northwest District

Attachments:
Exhibit 1, Project Drawings and Design Specs., 3 pages

Copies of 62-346.900 forms can be obtained at:
http://www.dep.state.fl.us/water/wetlands/erp/forms.htm

Copies furnished to:

U. S. Army Corps of Engineers
Franklin County
Alan Pierce, Franklin County
Pinki Jackel, Franklin County
Leslie Palmer, Department of Agriculture and Consumer Services (DACS)
Christopher Brooks, DACS
Christopher Knight, DACS
Scott Sanders, Florida Fish and Wildlife Conservation Commission (FFWCC)
Maria Merrill, FFWCC

CERTIFICATE OF SERVICE

The undersigned hereby certifies that this permit and authorization to use sovereignty submerged lands, including all copies, were mailed and/or emailed before the close of business on April 05, 2013, to the above listed persons.

FILING AND ACKNOWLEDGMENT

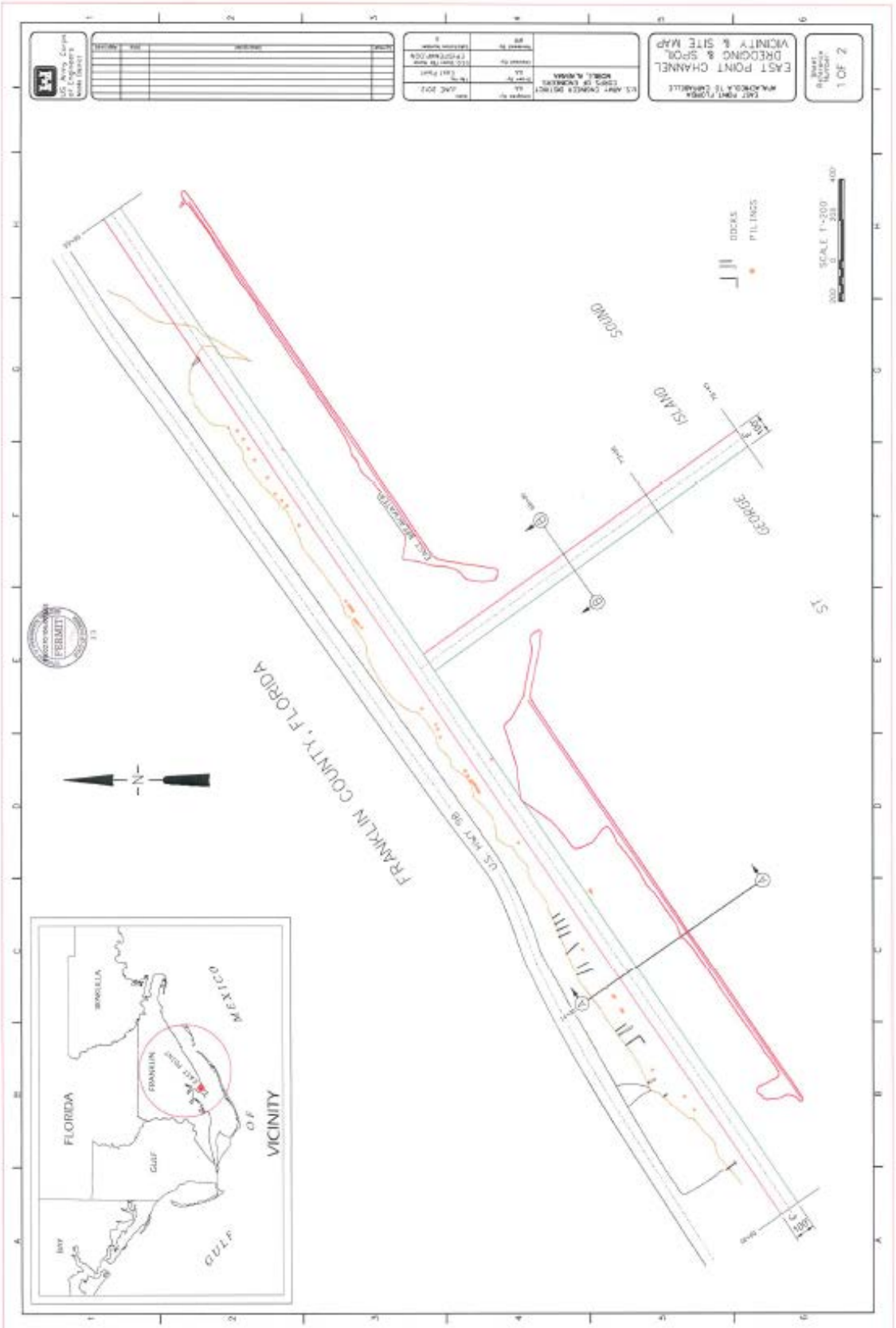
FILED, on this date, under Section 120.52(7) of the Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

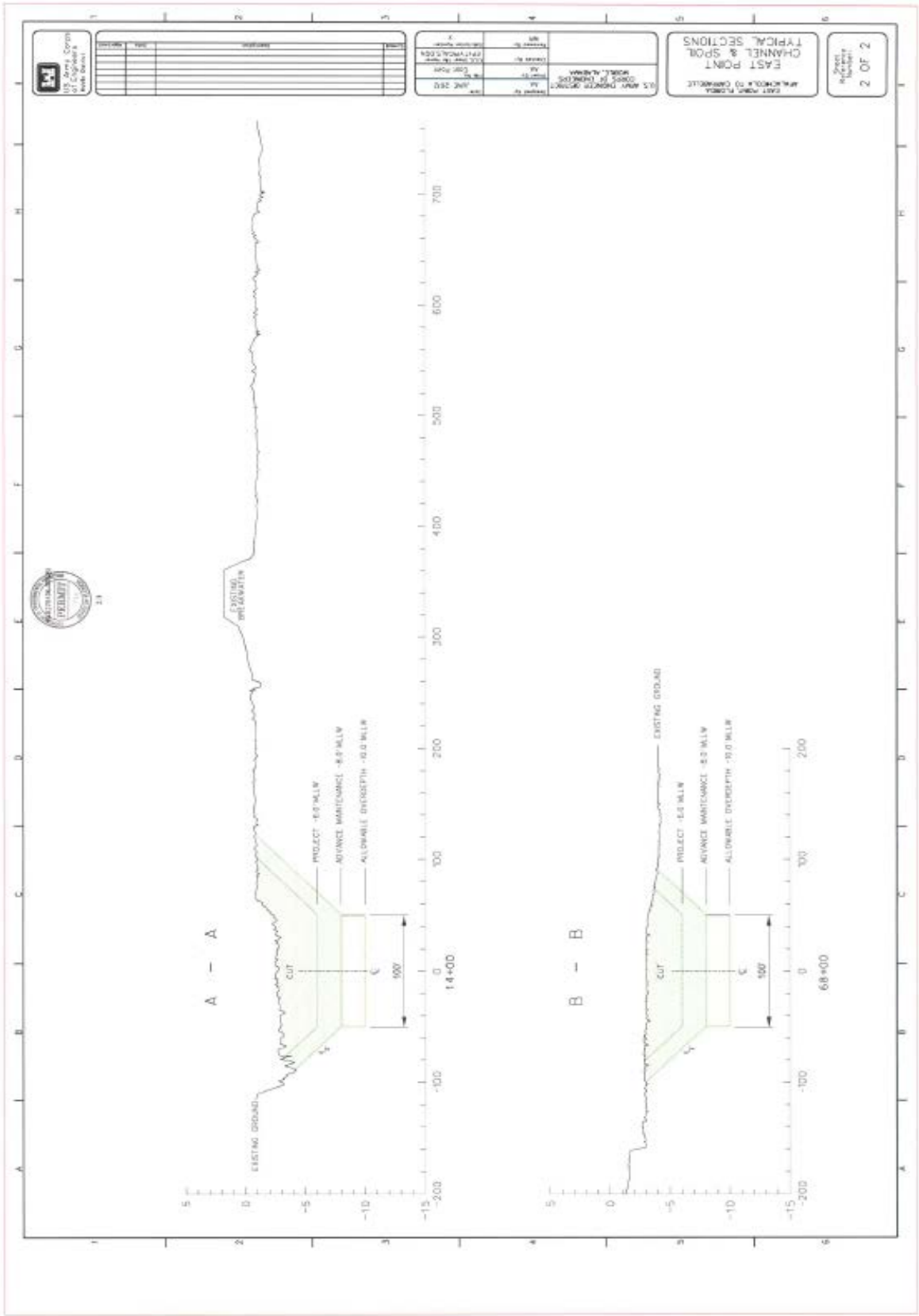
April 05, 2013

Clerk Date

Prepared By: Heather Mason

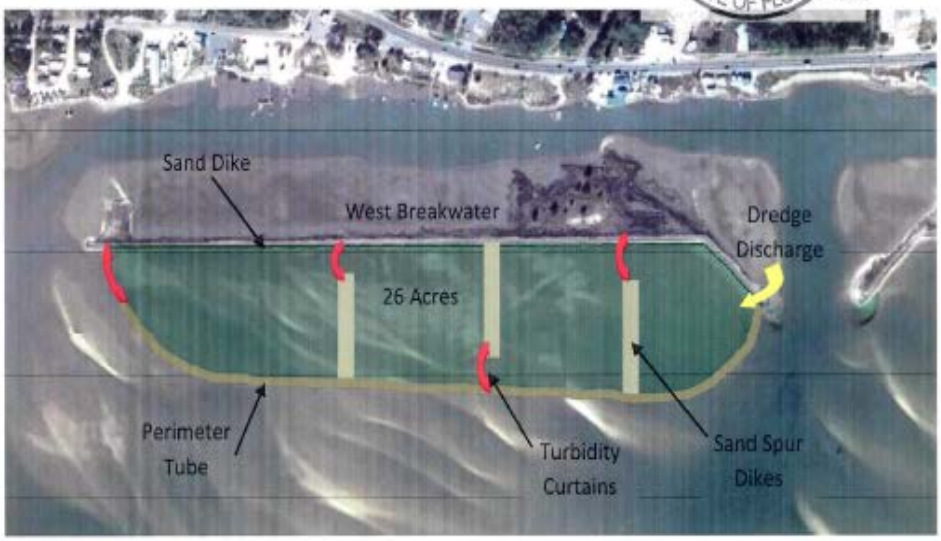
3 pages attached


US Army Corps of Engineers Mobile District
EAST FOINT CHANNEL
DREDGING & SPOIL
VICINITY & SITE MAP
U.S. ARMY ENGINEER DISTRICT
MOBILE, ALABAMA
JUNE 2012
Sheet Reference Number
1 OF 2
SCALE 1"=200'
DOCKS
PILINGS
SOUND
ISLAND
GEORGE
ST
FRANKLIN COUNTY, FLORIDA
US HWY 98
PERMIT
VICINITY OF
FLORIDA
MEXICO
GULF
BAY
GULF
FRANKLIN
WAKULLA


US Army Corps of Engineers
Mobile District
EAST POINT CHANNEL & SPOIL TYPICAL SECTIONS
EAST POINT FLORIDA
APALACHICOLA TO CARRABELLE
U.S. ARMY DISTRICT, MOBILE
CORPS OF ENGINEERS
JUNE 2010
Sheet Reference Number
2 OF 2
A - A
EXISTING GROUND
CUT
PROJECT -5.0' MLLW
ADVANCE MAINTENANCE -8.0' MLLW
ALLOWABLE OVERDEPTH -10.0' MLLW
100
14+00
B - B
68+00

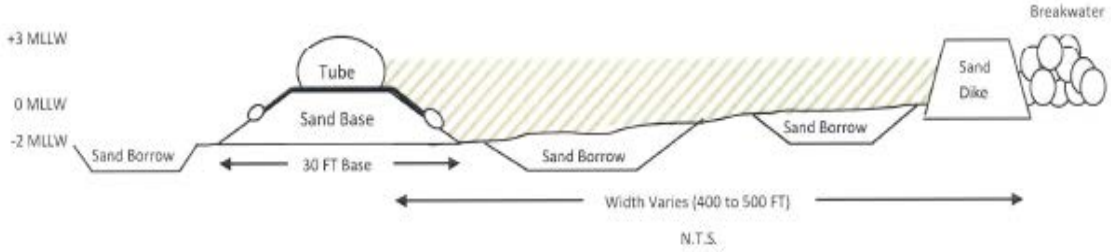
DEPARTMENT OF ENVIRONMENTAL PROTECTION
19-0270106-003-EI
PERMIT
STATE OF FLORIDA

Eastpoint Plan View



- 3,000 LF Geotubes (30 Ft circumference tubes)
- 2,500 LF Sand Dikes
- 450 LF Turbidity Curtains
- 1,200 LF Sand Spur Dikes (top elevation +3 MLLW, base width 40 FT)

Eastpoint Cross Section



- Sand Base constructed to approx +0.5 MLLW
- Perimeter Tube and Sand Dike top elevation approx +3.0 MLLW

EA Enclosure 2 – Public Notice

EA-Enclosure 2

EA-Enclosure 2