MAY 2020

ENVIRONMENTAL ASSESSMENT

CONSTRUCTION OF INTRACOASTAL WATERWAY DREDGED MATERIAL MANAGEMENT AREA O-23

MARTIN COUNTY, FLORIDA

US Army Corps
of Engineers
JACKSONVILLE
DISTRICT

US Army Corps of Engineers
JACKSONVILLE DISTRICT

PROPOSED FINDING OF NO SIGNIFICANT IMPACT
CONSTRUCTION OF INTRACOASTAL WATERWAY DREDGED MATERIAL MANAGEMENT AREA O-23
MARTIN COUNTY, FLORIDA

The U.S. Army Corps of Engineers, Jacksonville District (Corps), has prepared an Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended, and the White House's Council on Environmental Quality regulations to assess environmental effects of the construction of a dredged material management area (DMMA) at the O-23 site in Martin County, Florida. The Preferred Alternative consists of the following:

- Construction of a DMMA within the approximately 31-acre O-23 site to accept dredged material from maintenance of the Intracoastal Waterway (IWW) or the Okeechobee Waterway (OWW). Approximately 21 acres will be used for construction of the DMMA, of which approximately 14 acres will be used for the confined disposal facility.

In addition to the "No Action" alternative, the Corps evaluated one alternative as the Preferred Alternative. The other alternatives consisted of both different material placement methods and eight other potential upland sites for DMMA development. Ocean, open water, and beach placement methods were eliminated from detailed evaluation due to cost, potential negative environmental impacts, and practicality. Eight potential upland sites were eliminated from detailed evaluation due to inadequate containment capacity, potential negative environmental impacts, and/or technical impracticality.

I have reviewed the EA for the Preferred Alternative. This Proposed Finding incorporates by reference all discussions and conclusions contained in the EA enclosed hereto. Based on the information analyzed in the EA, which reflects pertinent information obtained from agencies having jurisdiction by law and/or special expertise, I conclude that the Preferred Alternative will not significantly affect the quality of the human environment and does not require an Environmental Impact Statement. Reasons for this conclusion are in summary:

a. The Preferred Alternative is in compliance with the Endangered Species Act of 1973, as amended. The Corps initiated coordination with the U.S. Fish and Wildlife Service (USFWS) in conjunction with providing the Draft EA. It is anticipated that the USFWS will concur with the Corps' determination that the project may affect, but is not likely

to adversely affect, Florida perforate cladonia (*Cladonia perforata*) and Eastern indigo snake (*Drymarchon corais couperi*).

b. The project requires an Environmental Resource Permit from the Florida Department of Environmental Protection (FDEP). The Corps will coordinate a Consistency Determination pursuant to the Coastal Zone Management Act through circulation of the draft EA via notice of availability. The Corps has determined that the Preferred Alternative is consistent to the maximum extent practicable with the enforceable policies of Florida's approved Coastal Management Program.
c. The Corps has coordinated the Preferred Alternative with the Florida State Historic Preservation Officer and the appropriate federally-recognized tribes in accordance with the National Historic Preservation Act and consideration given under NEPA. In a letter dated October 24, 2017, the Florida State Historic Preservation Officer determined that the project activities are unlikely to affect historic properties.
d. The Corps has determined that benefits to the public will be to maintain safe navigation through federal channels for recreational and commercial use by constructing a location to place dredged material.

All practicable means to avoid and minimize adverse environmental effects have been incorporated into the Preferred Alternative. Measures will be in place during construction to eliminate, reduce, or avoid adverse impacts below the threshold of significance to wildlife resources including the following:

- The Corps will require that the contractor hire an approved/permitted contractor to determine absence/presence of Florida perforate cladonia and gopher tortoise burrows. Florida perforate cladonia and gopher tortoises present in the upland placement site will be relocated prior to the start of construction.
- The Corps or its authorized agent will protect water quality by adherence to the State of Florida water quality criteria.
- The Corps will incorporate the standard migratory bird protection protocols into the project plans and specifications and will require the contractor to abide by those requirements.
- The Corps will incorporate the standard Eastern indigo snake protection protocols into the project plans and specifications and will require the contractor to abide by those requirements.

In view of the above and the attached EA, and after consideration of public and agency comments received on the project, I conclude that the Preferred Alternative would not result in a significant effect on the quality of the human environment. This Proposed Finding of No Significant Impact incorporates by reference all discussions and conclusions contained in the EA enclosed herewith. A copy of these documents will be made available to the public on the Corps' Environmental planning website, under Martin County:

http://www.saj.usace.army.mil/About/DivisionsOffices/Planning/EnvironmentalBranch/EnvironmentalDocuments.aspx

(On that page, click on the "+" next to "Martin County" and scroll down to "Construction of Intracoastal Waterway Dredged Material Management Area O-23." The documents

available for download include the Proposed FONSI, Draft EA, and associated appendices).

ANDREW D. KELLY, JR.
COL, EN
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Date

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ENVIRONMENTAL ASSESSMENT
DREDGED MATERIAL MANAGEMENT AREA CONSTRUCTION

1 PROJECT PURPOSE AND NEED

1.1 PROJECT AUTHORITY

Congress originally authorized construction of the Intracoastal Waterway (IWW) in the Rivers and Harbors Act of 1927 (P.L. 69-560) and original construction of the Okeechobee Waterway (OWW) in the River and Harbors Act of 1930 (P.L. 71-520). More recently, the State of Florida extended the Florida Inland Navigation District (FIND) the responsibility to include construction and maintenance of the OWW (Section 374.984, Florida Statutes).

1.2 PROJECT LOCATION

The proposed project is located in the unincorporated town of Jensen Beach in northeast Martin County, Florida (Figure 1) north of the OWW. See Figure 2 for the location of the site in reference to the IWW and OWW.

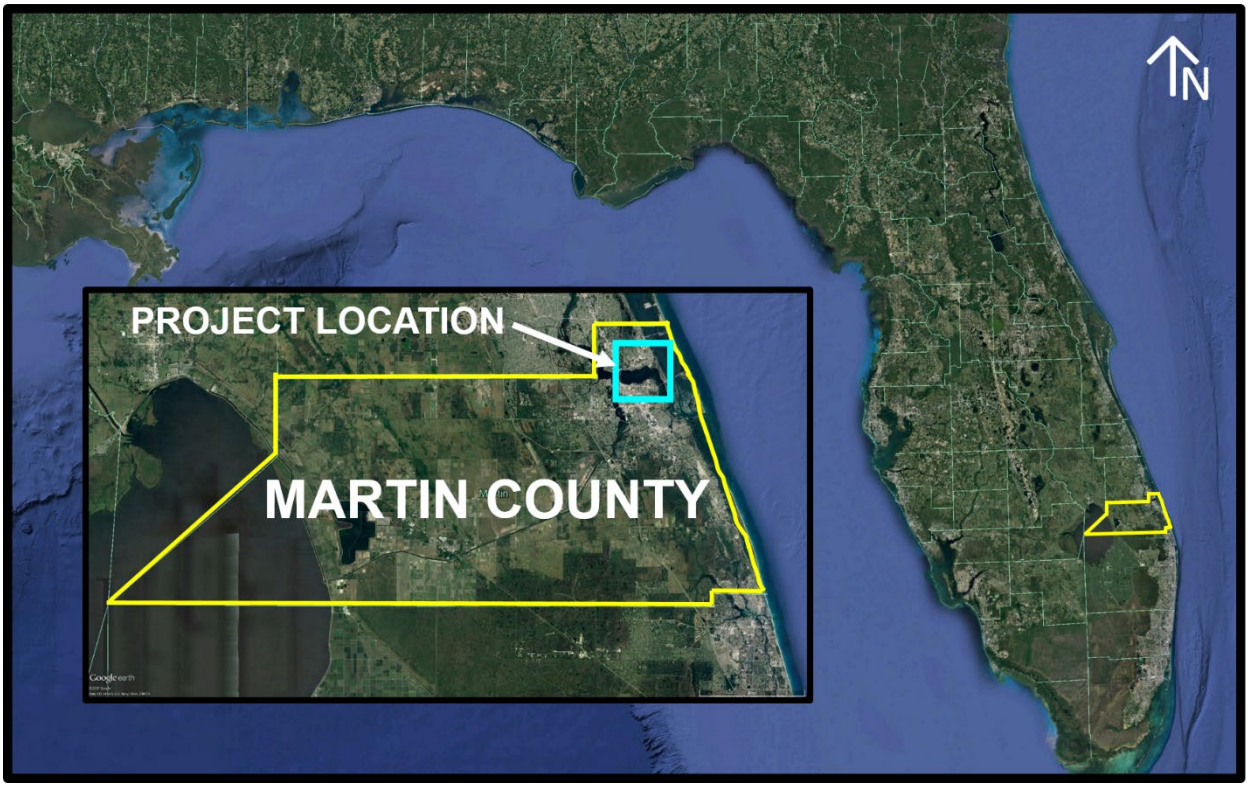


Figure 1. Project vicinity.

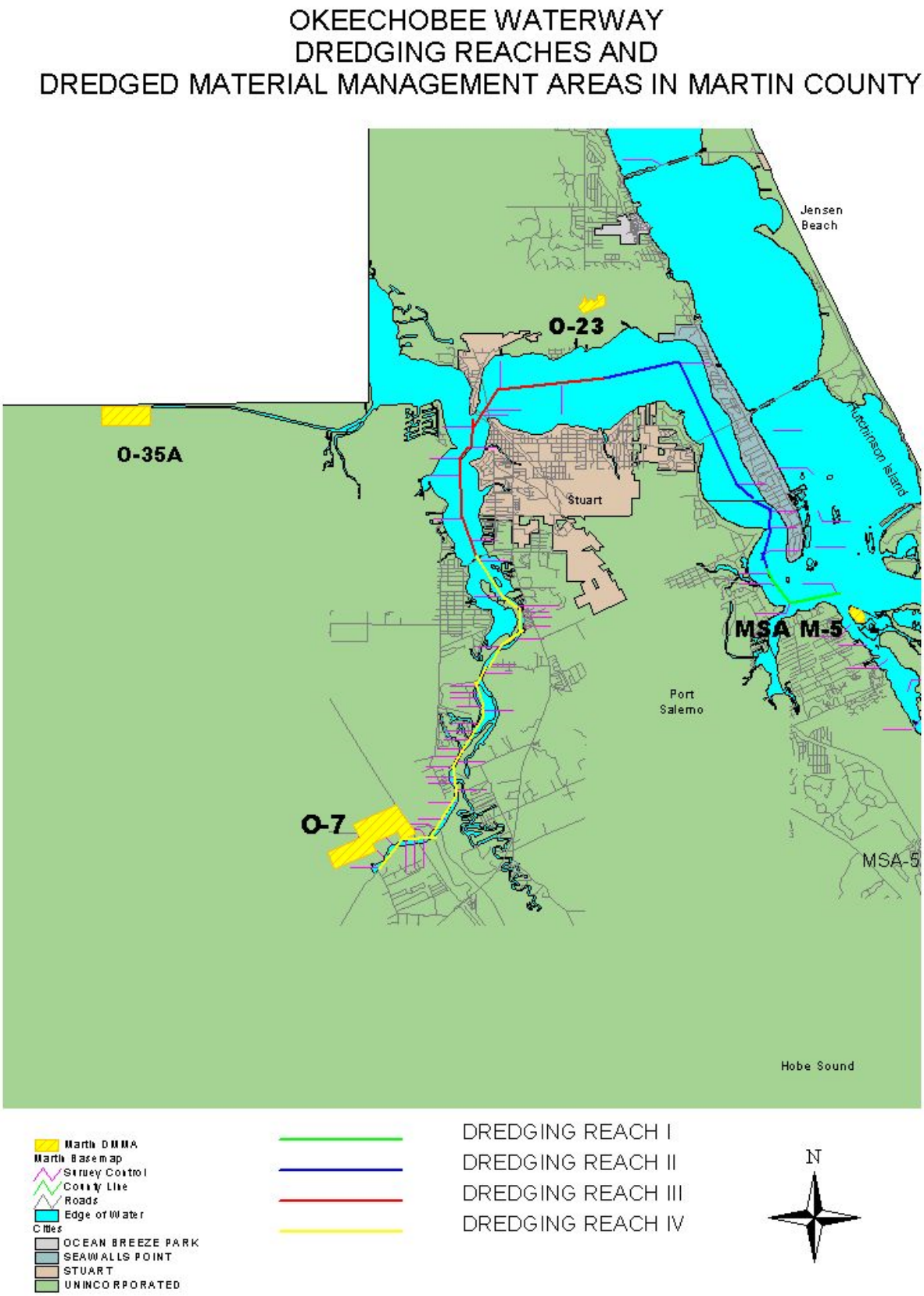


Figure 2. Location of OWW Reaches I - IV and DMMAs in Martin County, Florida. Taylor Engineering, 1998.

1.3 PROJECT NEED OR OPPORTUNITY

The Jacksonville District, U.S. Army Corps of Engineers (Corps) will be conducting maintenance a dredging of the IWW and OWW in Martin County, Florida. Currently there is one dredged material management area for dredged material from the OWW, and limited capacity for the IWW north of the Stuart Causeway. The proposed O-23 DMMA site is being proposed to handle the estimated approximately 250,000 cubic yards of shoal material to be removed from portions of Reach I and II of the OWW over the next fifty (50) years (See Figure 2). Due to its relatively close proximity to the IWW (5 miles), the proposed O-23 DMMA site may also receive dredged material from portions of that waterway as well.

The purpose of the proposed project is to construct a new dredged material management area (DMMA) to place dredged material from future dredging of federal channels or other permitted dredging projects. The need for the project is driven by the available capacity of any localized disposal site to account for the accumulation of sediment, commonly referred to as shoaling. Shoaling has restricted the width of the OWW and IWW project channels and reduced their depths hindering safe and efficient vessel navigation. Periodic dredging is required to remove accumulated sediments and thus maintain the channels at their federally authorized or permitted designed depths. This Environmental Assessment (EA) and Proposed Finding of No Significant Impact (FONSI) will evaluate construction of an upland site for future placement of dredged material. A separate National Environmental Policy Act (NEPA) analysis will be conducted for dredging and placement of material at this site.

The Preferred Alternative consists of constructing a DMMA at the O-23 site, which is approximately 31 acres in size (Figure 3). Approximately 21 acres will be used for construction of the DMMA, of which approximately 14 acres will be used for the confined disposal facility. The remaining 10 acres will preserve the on-site sand pine, pine flatwoods, and wetlands in addition to buffering adjacent properties from the project. Dredged material will be hydraulically pumped and placed in the upland site, which is provided by the FIND.

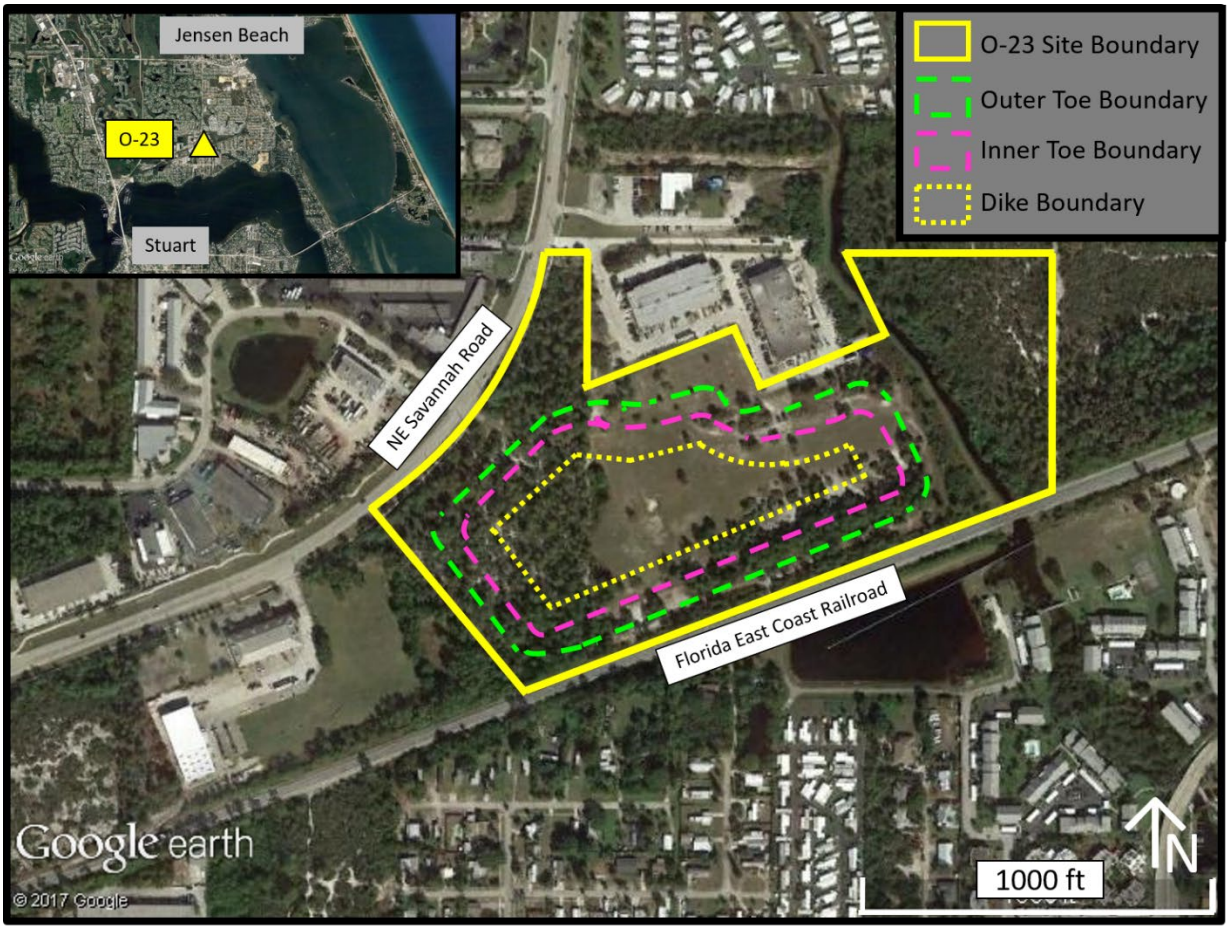


Figure 3. DMMA O-23 site location.

1.4 AGENCY GOAL OR OBJECTIVE

The Corps' goal is to continue to conduct maintenance dredging for the next 50 years of the OWW and IWW in Martin County, Florida in the vicinity of the Crossroads. Construction of a DMMA at the O-23 site will accommodate the shoal material removed from dredging of these areas (see Figure 2 and Figure 3).

1.5 PROJECT BACKGROUND

Spanning nearly the length of Florida from Jacksonville to Miami, an 8 x 75 feet (ft) IWW channel was authorized January 21, 1927 by House Document 586, 69th Congress, 2nd Session. The present channel configuration (12 x 125 ft) was authorized in 1945 by House Document 740, 79th Congress, 2nd Session. An 8 x 80 ft wide OWW channel was authorized May 31, 1974 by House Document 294, 93rd Congress, 1st Session. The Corps is responsible for maintenance of the channel and the FIND serves as the local sponsor obtaining all lands, easements, rights-of-ways, relocations, and dredged material disposal areas (LERRDs) for the IWW from Jacksonville to Miami and the OWW from the IWW/OWW crossroads West to the St. Lucie Lock. FIND and the Corps signed a Memorandum of Agreement defining their roles and responsibilities during the development and construction of DMMAs in September 1997 that is applied to developing the O-23 DMMA Site.

The identification and permitting of suitable DMMAs for the IWW and OWW has become increasingly difficult. This has resulted from the nature of dredging, the requirements of handling and storing dredged material, and the environmentally sensitive and rapidly developing areas in which these operations are performed. In response to this situation, FIND initiated a program of long-range dredged material management beginning in 1986.

The FIND's program, executed in close cooperation with the Corps, is comprised of three main elements: (1) a two-phased plan development and property acquisition element, (2) a facility permitting and construction element, and (3) a facility operation element. Program execution begins with the development of long-range dredged material management plans for the Waterway on a county-by-county basis (Phase I of the planning and property acquisition process). Upon finalization of each plan, Phase II of the planning and property acquisition process begins with site boundary surveys. The process continues with detailed environmental site characterizations, soils testing, topographic surveys, preliminary facilities design and site plans, site operation and management plans, and a summary of expected costs for site development and operation. All of this information is then used for property acquisition and facilities permitting (Taylor Engineering, 1998). This process is what led to the selection of the O-23 site for portions of the IWW/OWW in Martin County.

1.6 RELATED ENVIRONMENTAL DOCUMENTS

Related NEPA, design, and planning reports for potential upland placement sites within Martin County, Florida include the following documents:

- Long-Range Dredged Material Management Plan for the Okeechobee Waterway – Crossroads to St. Lucie Lock Martin County, Florida. Taylor Engineering, July 1998.
- Long-Range Dredged Material Management Plan for the Intracoastal Waterway in Martin County, Florida. Taylor Engineering, September 1993.
- Phase I Environmental Site Assessment for the Presence of Hazardous Materials Dredged Material Management Area O-23 Martin County, Florida. Taylor Engineering, April 1999.
- Environmental Site Documentation for O-23 Martin County, Florida. Taylor Engineering, May 2002.
- Phase I Cultural Resources Survey of the O-23 Dredged Material Management Area Martin County, Florida. New South Associates, February 2004.

1.7 DECISION TO BE MADE

The decision to be made upon completion of this EA is whether to construct a DMMA at the proposed site. Under the LERRDs process, the local sponsor FIND selects the dredged material placement sites and provides them to the Corps for the Corps to use/construct. This EA includes a summary of FIND’s alternatives analysis and selection process for the development of a DMMA on the O-23 site. This EA does not include a new analysis of dredged material disposal options for this section of the IWW and OWW. The Corps decision on whether to construct the O-23 DMMA decision will also consider whether there is a need for mitigation measures or best management practices (BMPs) to reduce any potential adverse effects, particularly in regards to associated activities (*i.e.* relocation of listed species, moving of construction equipment to and from the site).

If the Corps does not identify any significant effects on the human environment during the NEPA process, the Corps will sign the Proposed FONSI and move forward with the Preferred Alternative. If significant effects are identified, the Corps will implement mitigative measures to reduce the potential effects to a lower-than-significant threshold or proceed with a Notice of Intent to prepare an Environmental Impact Statement (EIS).

1.8 SCOPING AND RELEVANT ISSUES

1.8.1 SCOPING

The Corps issued a scoping notice for this project, dated August 21, 2017, and circulated it to applicable federal, state and local agencies, and interested non-governmental organizations for 30 days. Comments were received from Martin County Engineering Department (Appendix A) requesting additional information which is provided in this draft EA. The Corps will incorporate comments received on this Draft EA and Proposed FONSI as appropriate prior to finalization.

1.8.2 RELEVANT ISSUES

The following issues were identified as relevant to this analysis and appropriate for further evaluation: wetlands, threatened and endangered species, air quality, water quality, noise, aesthetics, socioeconomics, cultural resources, and cumulative effects. These issues are discussed in detail in Section 3 as the baseline condition.

1.8.3 ISSUES ELIMINATED FROM FURTHER ANALYSIS

The Florida scrub-jay (*Aphelocoma coerulescens*) is a federally-listed, threatened bird that utilizes fire-dominated oak scrub habitat. Florida scrub-jays occur on well-drained sandy soils in peninsular Florida and are extremely habitat-specific. Although there are several known subpopulations of scrub-jays throughout central and south Florida, they are only thought to occur at Hobe Sound within Martin County (USFWS, 1999c), which is located several miles south of the project site. There have been no known sightings of Florida scrub-jays at the O-23 site; wildlife surveys between 2002 and 2017 conducted by Water & Air Inc., Taylor Engineering Inc., the Corps, United States Fish and Wildlife Service (USFWS), Florida Fish and Wildlife Conservation Commission (FWC) and the Florida Department of Environmental Protection (FDEP), including playing scrub-jay vocalizations did not result in any sightings of this species.

The burrowing owl (*Athene cunicularia*) is a small bird that lives in open, treeless areas. The burrowing owl and its nest are listed as threatened in the State of Florida and are protected under state law; it is not a federally listed species. Burrowing owls are present throughout Florida, though their distribution is considered spotty. Burrowing owls inhabit open native prairies and cleared areas that offer short groundcover including pastures, agricultural fields, golf courses, airports, and vacant lots in residential areas (FWC, 2017). There have been no known sightings of Florida burrowing owls at the O-23 site. Wildlife surveys between 2002 and 2017 conducted by Water & Air Inc., Taylor Engineering Inc., the Corps, United States Fish and Wildlife Service (USFWS), Florida Fish and Wildlife Conservation Commission (FWC) and the Florida Department of Environmental Protection (FDEP) did not identify burrowing owl occurrence on the relatively low lying, coastal site.

1.9 PERMITS, LICENSES AND ENTITLEMENTS

The construction of a DMMA with overflow discharge to waters of the State will require a National

Pollutant Discharge Elimination System (NPDES) general permit for "stormwater discharges associated with industrial activities from construction sites" in accordance with the Clean Water Act of 1977, as amended (33 U.S.C. §1251 *et. seq.*).

Consultation with the State Historic Preservation Office (SHPO) is also required under Section 106 of the National Historic Preservation Act (54 U.S.C. §306108).

Consultation with USFWS under Section 7 of the Endangered Species Act (ESA) (16 U.S.C. §1536) is required.

The proposed DMMA construction is subject to the Coastal Zone Management Act (CZMA) (16 U.S.C. §1451 *et. seq.*). *See* Appendix B for the Florida Coastal Management Program Federal Consistency Determination.

The Corps will use the State of Florida's Environmental Resource Permit (ERP) process to obtain the required water quality certification and final coastal zone consistency concurrence from FDEP.

Section 5 provides a detailed list of environmental compliance regulations, policies, and permits applicable to this project.

2 ALTERNATIVES

An interdisciplinary team used a systematic approach to analyze the affected area, to estimate the probable environmental effects, and to prepare the EA and Proposed FONSI. This included a literature search, coordination with federal and non-federal agencies, and on-site field investigations conducted between the 1990s and 2017. This section describes the No Action Alternative, the Preferred Alternative, and other reasonable alternatives that were evaluated. The Preferred Alternative was selected based on the information and analysis presented in the Affected Environment and Environmental Effects sections (Sections 3 and 4, respectively) of this report.

2.1 DESCRIPTION OF ALTERNATIVES

For Operations and Maintenance dredging, the Corps is required to select the least-cost alternative for dredge material placement as discussed in the Federal Standard at 33 CFR 335-338 and in the guidance memo from the Director of Civil Works dated July 25, 1978. Alternatives that do not meet this criteria can be implemented, but the additional cost must be borne by an alternative party.

2.1.1 NO ACTION ALTERNATIVE

In the No Action Alternative, a new DMMA would not be constructed and no additional capacity for dredged material disposal would be realized. Dredging of the IWW and the OWW would be restricted to areas with beach quality (BQM) material and for the non-BQM areas by the limited capacity within the existing DMMA M-5 (Figure 2).

2.1.2 PREFERRED ALTERNATIVE - CONSTRUCTION OF DMMA AT THE O-23 SITE

This alternative would consist of construction of an approximately 14-acre diked confined disposal facility on the 31-acre O-23 site for the storage of dredged material generated during maintenance operations of local waterways including the IWW and/or the OWW. During dredging, temporary pipelines to the O-23 site could be required to convey dredged material from the waterway, up Warner Creek to the containment basin. However, the effects of dredging and placement will be evaluated in a subsequent NEPA review prior to future dredging. This document only evaluates construction of a DMMA at site O-23.

2.1.3 PLACEMENT METHODS ELIMINATED

2.1.3.1 Ocean Placement

Ocean disposal requires transporting dredged material to an authorized Ocean Dredged Material Disposal Site (ODMDS), which was determined to be operationally impractical and too cost prohibitive for the Martin County Project area (Taylor Engineering, 1998; Taylor Engineering, 1993). Dredging of these areas must be completed by dredges capable of transiting the shallow (-8 ft to -10 ft MLW) depths of the IWW and OWW. There are very few hopper dredges capable of dredging in such shallow waters, and even fewer able to transit in these depths while fully loaded with dredged material, while being U.S. Coast Guard (USCG) certified for ocean transit. The project could also be dredged with a combination of a mechanical dredge and tug/scow, however, the same shallow-water limitations exist for scows that can transit within the dredging area which are also USCG ocean-certified.

After the dredge/scow is loaded with dredged material, it would then have to transit to an inlet for passage to sea. St. Lucie Inlet, opposite the entrance to the IWW/OWW, clearly provides a potential access point closest to the IWW/OWW project area. However, the St. Lucie Inlet entrance and interior channels historically have demonstrated persistent shoaling and cannot provide reliable ocean access for ocean-going barge traffic. Ft. Pierce Inlet, located more than 20 miles to the north, offers the closest deep-water offshore access. Once reaching Ft. Pierce, the dredge would then transit to the Ft Pierce ODMDS, 4.4 miles east of Ft. Pierce, a 25 mile one way trip. This also assumes that the material would pass U.S. Environmental Protection Agency (USEPA) disposal testing requirements (AKA the green book) without significant dilution prior to disposal. Testing can take up to two years to be completed for ODMDS placement. This a very expensive alternative due to the transit distance and the potential need for dilution that would limit the amount of dredged material that could be placed into each load. It is unlikely that this disposal alternative would meet the requirements to be the least cost alternative. The USEPA has reviewed the environmental effects of transport and placement of dredged material within this ODMDS in the Final EIS for the designation of the Ft. Pierce ODMDS (EPA 1993) and that analysis is incorporated by reference.

2.1.3.2 Open Water Placement (Island Creation)

For the purposes of this document, open water sites refer to island creation in open water environments. Historically, this was the most commonly employed dredged material disposal method employed in this area of the IWW/OWW. However, based on FIND's conversations with resource agency partners, this alternative was determined to be unacceptable due to adverse effects to benthic habitats in the St Lucie River (Taylor Engineering 1998). In addition, open water placement is a one-time opportunity, it is not an option for long-term placement and does not provide a long-term solution for placement of dredged material for 50-years.

2.1.3.3 Beach Placement

Beach placement of dredged material is typically encouraged in Florida for sediments meeting the State of Florida beach placement qualifications. Sediments meeting these qualifications are typically found around tidal inlets where storm and tidal action force the sand through the inlet. Within the Martin County project area, beach placement is typically reserved for sediments dredged within the immediate area of the St. Lucie Inlet. However, centralized upland storage remains the preferred method of dredged material management in all other areas of the Martin County because the dredged material does not meet the State of Florida standards of less than 10% fines for beach placement of operations and maintenance dredged material to be placed on the beach, exceeding 99% in some areas (Taylor Engineering 1998).

2.1.4 UPLAND SITES ELIMINATED

FIND contracted with Taylor Engineering to conduct an initial review of sites either owned by FIND or under lease to FIND. The results of this analysis are included in the reports entitled "Long-Range Dredged Material Management Plan for the Okeechobee Waterway – Crossroads to St. Lucie Lock. Martin County Florida, July 1998" and "Long Range Dredged Material Management Plan for the Intracoastal Waterway in Martin County, Florida. September 1993". Additionally, the Corps reviewed plans for the development of long-term DMMAs and solicited comments at regularly scheduled FIND public workshops and board meetings.

The Corps evaluated a total of nine locations in northeast Martin County as potential upland DMMA sites (Figure 4, Table 1). Field inspections were performed to evaluate environmental characteristics, existing and adjacent land use of each site, and potential storage capacity to assess the general suitability for site development. Of the nine locations evaluated, six sites (O-18, O-21, O-22, O-24, O-25, and O-34) were eliminated from further consideration due to inadequate containment area and/or capacity available meaning they were not practicable alternatives. Although O-20 met the required containment area and capacity requirements, it was eliminated due to a lengthy and difficult pipeline route (Taylor Engineering, 1998) which did not make it a reasonable alternative. A detailed review of each site is included in Appendix A of the Taylor Engineering Report (1998) and is incorporated by reference. Of the two remaining sites, it was determined that Site O-19 would impact a larger footprint of wet prairie and herbaceous wetlands than the O-23 site and therefore was not carried forward for analysis as a reasonable alternative. Additionally, it is further west than the O-23 site, excluding it as a feasible option for placement of material from the IWW, which is a selection criterion for the proposed DMMA.

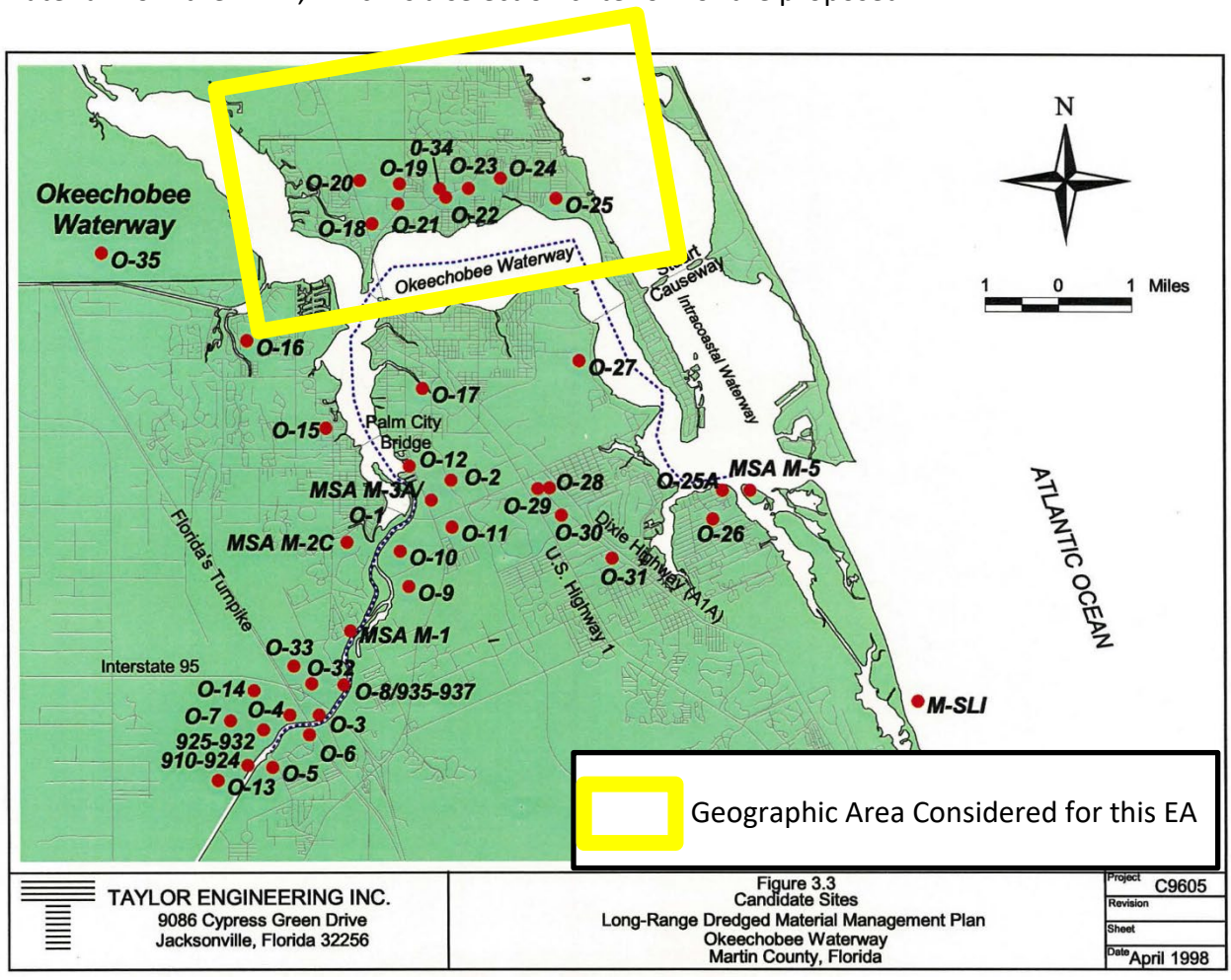


Figure 4. Candidate sites for DMMA development. Altered from Taylor Engineering, 1998.

Table 1. Suitability of candidate sites for DMMA development in NE Martin County, Florida. Information from Taylor Engineering, 1998.

Site Considered	Mapped Area (acre)	Containment Area (acre)	Capacity (cy)	Max Pumping Distance	Limiting Factor(s)	
O-18	78.97	N/A	N/A	6.1	Insufficient upland area	
O-19	69.30	53.31	885,215	6.6	Pipeline access	Wetland impacts
O-20	59.86	29.60	381,336	7.1	Pipeline access	Wetland impacts
O-21	44.77	N/A	N/A	5.9	Insufficient upland area	
O-22	11.92	5.89	34,716	5.0	Low capacity	
O-23	29.90	17.48	249,897	6.3	Pipeline access	
O-24	25.89	N/A	N/A	4.7	Inadequate buffer	
O-25	49.32	N/A	N/A	3.9	Inadequate undeveloped area	
O-34	28.40	5.65	33,223	5.9	Pipeline access	Low capacity

Green: meets criteria
Yellow: partially meets criteria
Red: does not meet criteria

The results of these the previously listed reports and meetings were the basis of FIND's determination that the O-23 site was an appropriate location to construct a DMMA for this segment of the IWW and OWW. This decision was forwarded to the Corps by FIND with a request for the Corps to construct the DMMA at the O-23 site.

2.2 COMPARISON OF ALTERNATIVES

Table 1 summarizes the major features and consequences of the Preferred Alternative and the No Action Alternative. Refer to Section 4, *Environmental Effects* for a detailed discussion of effects of the alternatives.

Table 2. Summary of environmental factors considered in this EA and comparison of alternatives.

Environmental Factor	No Action Alternative: No Construction of DMMA O-23	Preferred Alternative: Construction of DMMA O-23
Wetlands	No effect.	The USFWS National Wetland Inventory does not identify any wetlands within the project area that could be adversely affected by the Preferred Alternative. However, FDEP identifies 0.95 acres of stormwater retention vegetated non-forested wetlands present within the project boundary. Of the 0.95 acres identified as wetlands by FDEP, approximately 0.3 acres occur within the proposed construction footprint; thus, 0.190 acres of functional loss are expected with this alternative (see Appendix D for FDEP's Uniform Mitigation Assessment Method Site Analysis). However, preservation of existing stormwater ponds and construction of a perimeter ditch will provide foraging habitat for various species and exceed the 0.190 acres of functional loss so the project will be self-mitigating.
Wildlife Resources: vegetation and wildlife communities, migratory birds	No effect.	This alternative would require the clearing of approximately 11.5 acres of pine flatwoods and sand pine trees from the western and southern sides of the project area. Migratory birds may experience permanent interruption of foraging and resting habitat resulting from the clearing of approximately 11.5 acres of habitat; however, similar nearby habitat within the project boundary will be preserved for possible relocation by these individuals.
Threatened and Endangered Species: Florida perforate Cladonia, eastern indigo snake, and gopher tortoises	No effect.	Construction activities at the upland placement site may affect, but are not likely to adversely affect, eastern indigo snake and Florida perforate Cladonia. A survey will be conducted prior to construction to determine if any gopher tortoise trapping and relocation is needed and if eastern indigo snakes are present. Standard protection measures for the eastern indigo snake will be implemented for this project. Gopher tortoise permits will be obtained through the State of Florida if the surveys reveal that relocation is necessary. Surveys to determine the extent of Florida perforate Cladonia will be conducted prior to construction. If surveys determine presence of Florida perforate Cladonia within the limits of construction, they will be relocated to another area of suitable habitat within the project area in coordination with USFWS.
Air Quality	No effect.	There will be a temporary increase in concentrations of nitrogen dioxide (NO_2), sulfur dioxide (SO_2), carbon monoxide (CO), volatile organic compounds (VOCs), and particulate matter (PM) associated with heavy construction equipment used to construct the DMMA. Effects will be localized, temporary, and will not significantly alter air quality.
Water Quality	No effect.	Disposal of a slurried dredged material at the O-23 site is not likely to result in the degradation of local water quality within Warner Creek or the OWW. The project area is within a large scale stormwater retrofit known as "Leilani Heights/ Warner Creek Stormwater Quality Retrofit Phase I-IV," but the project is not expected to adversely affect the current or future retrofit phases. The goal of the retrofit was to enhance water quality in Warner Creek Drainage Basin and provide pollutant relief to the St. Lucie Estuary. ADD INFO TO NEPA ABOUT WQ AND EASEMENT IMPACTS
Noise	No effect.	A temporary, minor increase in the noise level during construction in the vicinity of the project would occur.
Aesthetic Resources	No effect.	Planned buffer zones should prevent long-term loss of aesthetic value of the project area.

Socioeconomics	If the O-23 site is not utilized, an alternative DMMA will need to be selected and acquired at an additional cost. There may be adverse effects on navigation based on the lack of an available management area, which would decrease public safety for vessels transiting the area and may indirectly impact the local economy.	There would be short-term localized generation of revenues associated with construction of the DMMA. The associated maintenance dredging of the federal channels would result in a moderate long-term secondary benefit through the encouragement of commercial and recreational navigation.
Cultural Resources	No effect.	The Corps surveyed the DMMA property for cultural resources and did not identify any resources within the project footprint. The Preferred Alternative will have no effect on cultural resources listed or eligible for listing in the National Register of Historic Places (NRHP). This determination was coordinated with SHPO and the Seminole Tribe of Florida. SHPO determined that the project is unlikely to affect historic properties and the Tribe stated they had no comment on the project. By letter dated October 24, 2017, the SHPO determined: "In addition, it is the opinion of this office that the proposed project is unlikely to affect historic properties." And by email dated September 26, 2017, the Seminole Tribe of Florida stated "We have no objections to the project at this time."
Native Americans	No effect.	The Preferred Alternative will have no effect on Native American properties or on cultural resources of significance to Native American interests.
Cumulative Effects	No effect.	The Preferred Alternative would result in long-term benefits, which should outweigh any short-term environmental losses. Construction of the O-23 DMMA is not expected to have significant effects on the environment individually or cumulatively. Construction of a DMMA at the O-23 site is not expected to impact any of the Phase I-IV retrofit features, providing that the O-23 pipeline bypasses the downstream wet retention facility on Warner Creek and empties directly into the OWW. However, if the O-23 discharge pipe empties directly into Warner Creek adjacent to the project site, the O-23 "ambient dredge water discharge" may affect water flowing into the wet retention and OWW. Adverse effects associated with construction activities will be temporary and minor. No long term adverse effects are expected.
Unavoidable Adverse Environmental Effects	No effect.	Unavoidable adverse environmental effects associated with the clearing activities of the existing pine forest and wetlands are expected. However, preservation of existing wetlands and forest habitat within the project boundary and construction of a perimeter ditch will provide suitable habitat for displaced species.

3 AFFECTED ENVIRONMENT

The Affected Environment section describes the existing environmental resources of the project area that would be affected if either alternative were implemented. This section describes only those environmental resources that are relevant to the decision to be made. It does not describe the entire existing environment, but only those environmental resources that would affect or that would be affected by the alternatives if they were implemented. This section, in conjunction with the description of the No Action Alternative, forms the baseline conditions for determining the environmental effects of the reasonable alternatives.

3.1 WETLANDS

The USFWS National Wetland Inventory (NWI) was used to identify wetlands within the project area and vicinity. Warner Creek, classified as estuarine waters by the USFWS, flows through the eastern portion of the project area (USFWS, 2017; Figure 5). The NWI does not identify any wetlands located elsewhere within the upland placement site.

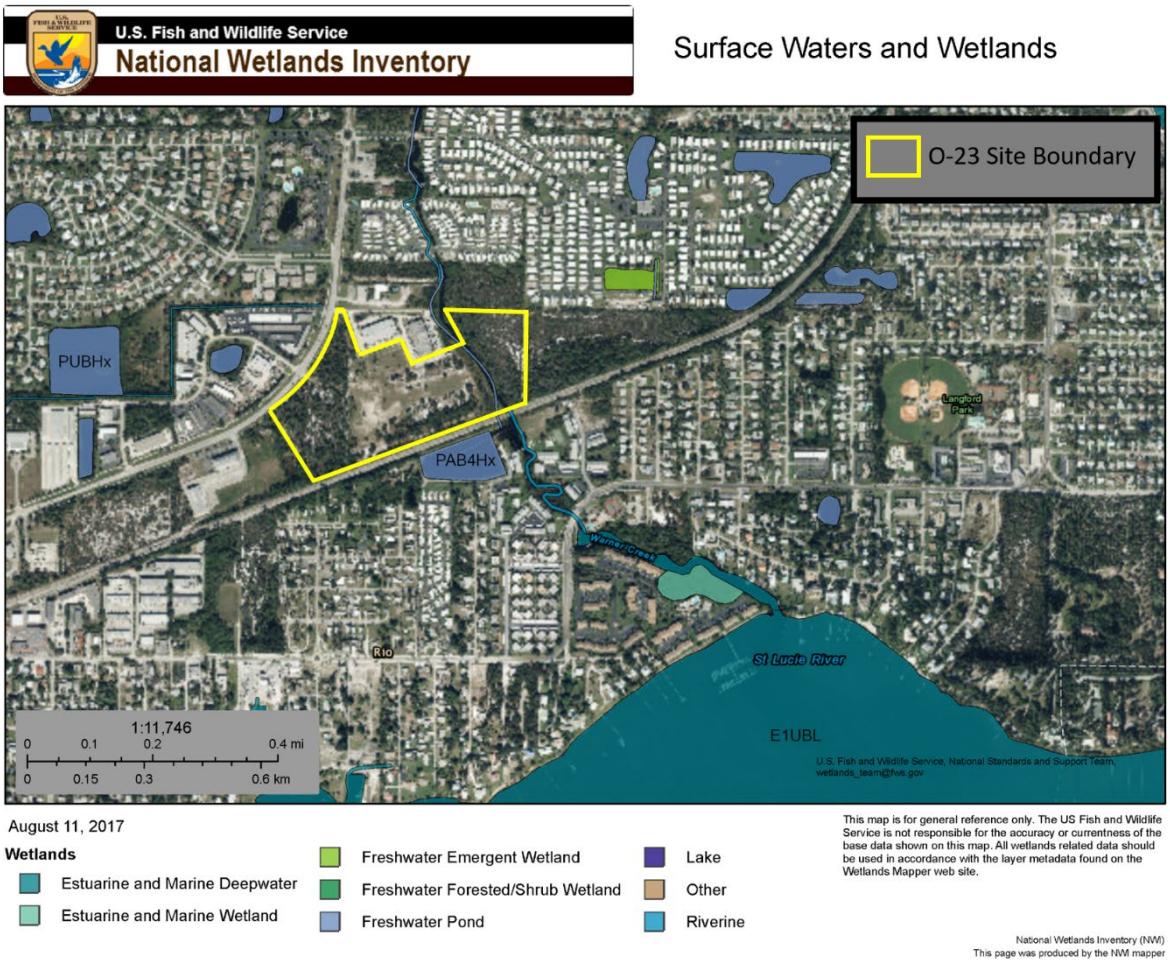


Figure 5. Wetlands within the O-23 DMMA project vicinity. Altered from USFWS, 2017.

FDEP identifies 0.95 acres of stormwater retention vegetated non-forested wetlands within the site boundary. FDEP classifies these wetlands as providing slightly below the minimal level of

wetland/surface water functions. Of the 0.95 acres identified as wetlands by FDEP, approximately 0.3 acres occur within the proposed construction footprint. *See* Appendix D for FDEP's Site Survey Report and Uniform Wetland Mitigation Assessment Worksheet.

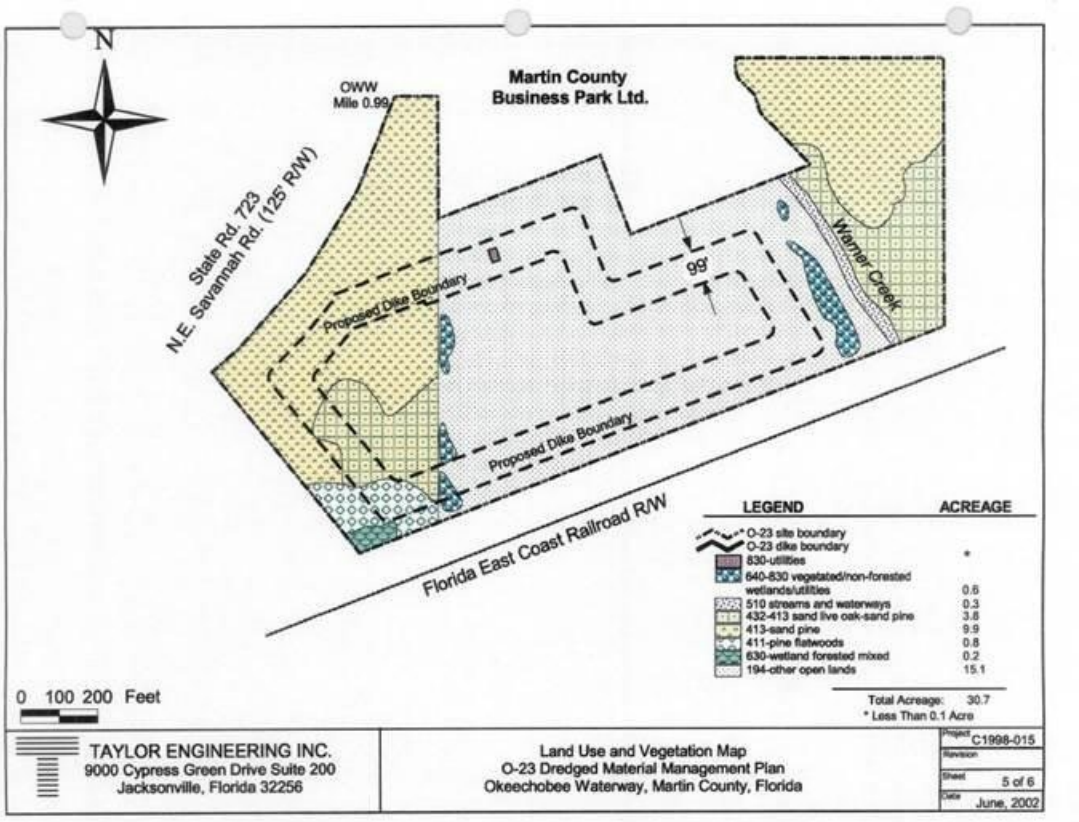


Figure 6. Land use and vegetation map for Site O-23. From Taylor Engineering, 2002.

3.2 WILDLIFE RESOURCES

3.2.1 VEGETATION AND WILDLIFE COMMUNITIES

There are several vegetation and wildlife communities within the project area. Table 3 describes the primary vegetation communities present at Site O-23 and the identified vegetation communities and associated wildlife species typically present within each community.

Table 3. Description of vegetation communities found at Site O-23 and typical wildlife species that utilize each environment. From Water & Air Research, Inc., 2002.

Vegetation Communities Identified at Site O-23	Associated Wildlife Species
Other Open Lands	Field mice, cotton rats, and cottontail are common in this community.
Mostly low ground cover with some areas of shrubs and trees. This area was cleared prior to 1998. This area lacks a clearly defined canopy.	
Pine Flatwoods	Raptors, songbirds, and frogs typically utilize pine flatwoods.
Located primarily at the western side of the site and as a small forested wetland community in the southwest corner of the property (< 1 acre). The tree canopies consist of slash pine, scattered pine, and occasional sand live oak.	
Sand Pine	White-tailed deer, raccoon, gray fox, skunk, and bobcat are common species in sand pine and oak scrub habitats, though the level of development within the project vicinity likely precludes the use of the site by larger mammals not adapted to suburban settings. Gopher tortoise also occurs in sand pine and oak scrub environments, but prefer edges with access to herbaceous vegetation. Birds present in these environments include ground dove, rufous-sided towhee, northern bobwhite, great crested flycatchers, pine warblers, Carolina wren, blue-gray gnatcatchers, downy woodpeckers, and red-bellied woodpeckers.
Located primarily in the eastern and western areas of the site. Under the sand pine canopy, shrub cover is dense with few openings for herbaceous ground cover.	
Live Oak/Sand Pine	
Located primarily in the eastern and western portions of the site south of the sand pine community. Scrub oak species are prevalent with scattered clusters of sand pine occurring throughout the community.	
Streams and Waterways	Aquatic and wading birds typically use streams to forage.
Warner Creek flows north-northwest to south-southeast through the eastern area of the site and discharges into the OWW ~0.5 miles from Site O-23. The width of the creek is ~20-25 feet and the banks are steeply sloped.	
Wetland Forested Mixed	Species similar to those present in Pine Flatwoods, Sand Pine, and Live Oak/Sand Pine.
There is a small (approximately 0.2 acres), forested wetland located at the southwest corner of the property, consisting of mostly slash pine, with scattered dahoon holly and Carolina willow. The wetland is adjacent to the railroad right of way.	
Vegetated, Non-forested Wetlands/Utilities	Species similar to those present in Other Open Lands.
Five stormwater retention basins occur along the margins of the other open land community and include stormwater inlets, which are generally vegetated with wetland species that have invaded the depressions since the land was originally cleared. A small fenced utility area exists in the northeast part of the other open land (this area is not vegetated).	

3.2.2 MIGRATORY BIRDS

A number of seabirds and shorebirds may occur in and around the project area, including a number of species considered birds of conservation concern by the Migratory Bird Treaty Act of 1918 (16 U.S.C. §§703-712). According to the Florida Shorebird Database, there have been no reported species of conservation concern within the project area. However, species reported within a five-mile radius of the project area since 2011 include the least tern, black skimmer, American oystercatcher, and brown pelican. These species nest on beaches, in marshes and sometimes rooftops along the Florida coast and therefore could occur within the project vicinity (FWC, 2016).

3.3 THREATENED AND ENDANGERED SPECIES

The lists of endangered and threatened species developed for this EA (Table 4) were determined from existing reports and site visits performed between the 1990s and 2017. There is no designated critical habitat for any listed species in the project area.

Table 4. Threatened and endangered species in the project area.

Common Name	Scientific Name	Listing Status
Florida perforate cladonia	*Cladonia perforata*	Endangered (Federal)
Eastern indigo snake	*Drymarchon corais couperi*	Threatened (Federal)
Gopher tortoise	*Gopherus polyphemus*	Candidate (Federal); Threatened (State)

3.3.1 FLORIDA PERFORATE CLADONIA

The Florida perforate cladonia is a rare lichen that forms dense clusters 20 to 60 millimeters tall and form from spore-producing structures. Florida perforate cladonia are pale yellow-ish gray and are present as scrub vegetation in several counties in central Florida (USFWS, 1999b). Field visits between 2008 and 2017 documented the persistence of Florida perforate cladonia at the O-23 site.

3.3.2 EASTERN INDIGO SNAKE

The eastern indigo snake is the largest non-venomous snake in North America, reaching lengths of up to 2.6 meters. The snakes are glossy black with iridescent blue highlights that are visible in natural light except for a red or cream color on the chin, throat, and sometimes cheeks. Eastern indigo snakes are generally active and live in a variety of habitats with home ranges in South Florida spanning up to 121 acres for female snakes and 492 acres for male snakes (USFWS, 1999a). Often times, this species will use the burrows of gopher tortoises, if available. However, the approximately 50-acre project site is surrounded by commercial and residential development and it is therefore unlikely that any eastern indigo snakes would be present due to the surrounding land use and the large home range of this species.

3.3.3 GOPHER TORTOISE

Gopher tortoises are moderate-sized reptiles that occupy well-drained upland habitats throughout Florida, including forests, pastures, and yards. They dig deep burrows for shelter and forage on low-growing plants (FWC, 2017). Several field visits to the project site between 2004 and 2017 confirmed presence of a small population of gopher tortoises and their burrows within the O-23 site. The State of Florida lists gopher tortoises as threatened and state law protects both the tortoise and its burrow. The gopher tortoise population in Florida is currently a candidate species for protection under the ESA and is listed as threatened elsewhere in the southeast US.

3.4 AIR QUALITY

The Conformity Rule in the Clean Air Act (CAA) (42 U.S.C. §7506(c)) requires federal actions to conform to an approved state implementation plan designed to achieve or maintain an attainment designation for air pollutants as defined by the National Ambient Air Quality Standards (NAAQS). The NAAQS are designed to protect public health and welfare. The criteria pollutants include ozone, nitrogen dioxide, carbon monoxide, total suspended particulates, and sulfur dioxide. The project area is located in the Southeast Florida Intrastate Air Quality Control Region as established by 42 CFR §481.49. In the State of Florida, the USEPA designates air quality compliance on a county level and Martin County is classified as attainment/unclassifiable status (40 CFR §81.310).

3.5 WATER QUALITY

Located outside of the proposed project area on the east side of the O-23 site is Warner Creek, a tidally connected, non-outstanding Florida waterway connected to the OWW on the St. Lucie River in Martin County. The waters of the IWW and OWW south of site O-23 are used for recreational fishing, commercial fishing, shellfishing, boating, and other recreational uses. FDEP classifies the waters as Class III quality (suitable for recreation, propagation and maintenance of a healthy, well-balanced population of fish and wildlife).

Warner Creek empties the Warner Creek Drainage Basin which contains approximately 5,029 acres of land area located to the north of the O-23 site. The overall basin is bounded by Pineapple Plantation, Jensen Beach Golf & Country Club and East Port St. Lucie Phase I to the west, Walton Road to the north, the Atlantic Coastal Ridge to the east and by the Florida East Coast Railroad to the south. The O-23 site is just to the north of the FEC Railroad which is the Warner Creek Drainage Basin's southern border. The waters of the OWW in the St. Lucie River where Warner Creek empties are used for recreational fishing, commercial fishing, boating, and other recreational uses.

The 7.06-acre Martin County Business Park property borders the FIND parcel to the north. FIND is responsible for isolating the Martin County Business Park storm water management system (SWM) system from the DMMA by rerouting existing storm water conveyances within the DMMA to the existing SWM ponds.

3.6 NOISE

Noise is defined as unwanted sound and, in the context of protecting public health and welfare, implies potential effects on the human and natural environment. Ambient noise levels within a given region may fluctuate over time because of variations in intensity and abundance of noise sources. Ambient sources of noise within the project area include personal and commercial vehicles transiting along the site periphery and natural sounds from the physical and biological environment.

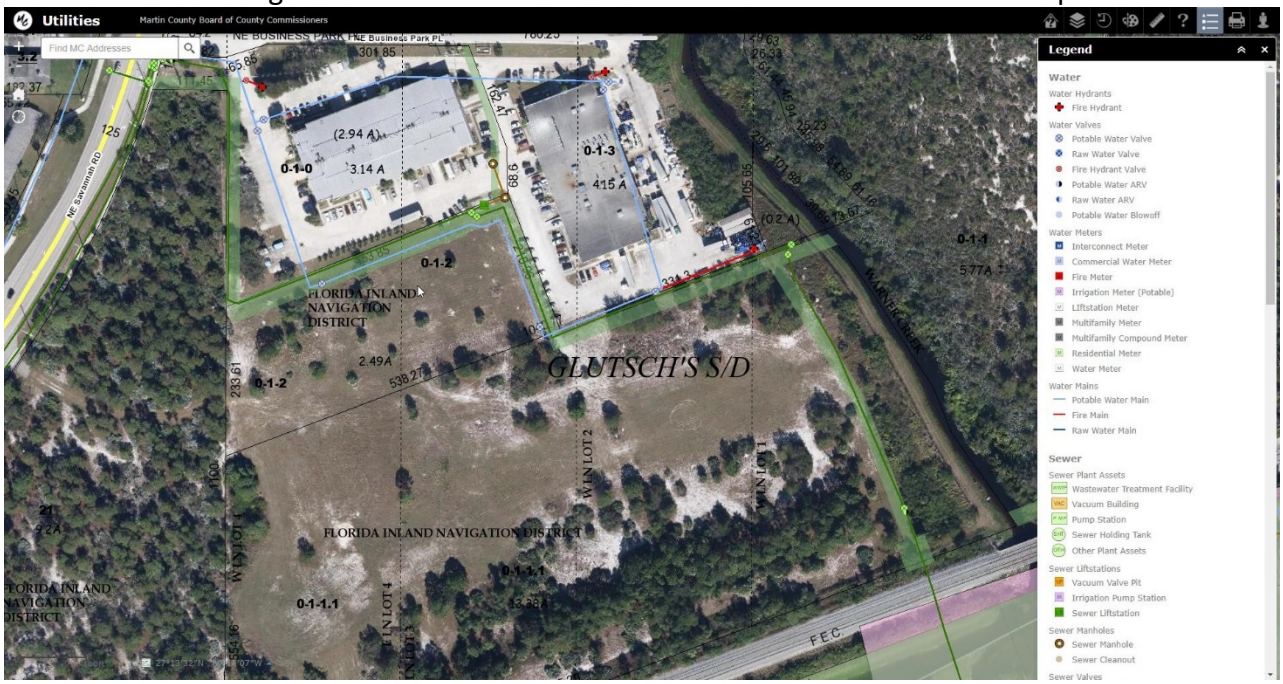
3.7 AESTHETIC RESOURCES

Site O-23 is located within an urban area and is surrounded by commercial and residential developments. The central portion of the project site has been previously cleared with sparse vegetation regrowth. The eastern and western edges of the project site are vegetated with pine flatwoods and scrub pine. Warner Creek traverses the eastern portion of the project site before

emptying into the OWW. To the south, the site is bordered by an active railroad track. There is a commercial facility and road to the north of the project area. There are no features that are prominent or architecturally distinguished at the O-23 site.

3.8 SOCIOECONOMICS

The area surrounding Site O-23 is a mixture of commercial and residential development.



The 7.06-acre Martin County Business Park property borders the FIND parcel to the north. The site contains commercial buildings, supporting infrastructure, and a SWM system.

3.9 CULTURAL RESOURCES

Environmental conditions including soil type, topography, and proximity to a running water source suggested that the project area had a moderate probability for the occurrence of cultural resources. The Corps completed a cultural resources assessment survey (CRAS) in 2003 in anticipation of development of the DMMA (DHR Survey #9482). During this survey, archaeologists identified an historic artifact scatter (8MT1343) aligned parallel to the rail line on the southern boundary of the property. This scatter, composed of amethyst bottle glass and ceramic fragments, lacked subsurface features and stratigraphic integrity and was recommended as ineligible for inclusion on the NRHP. The SHPO concurred with this analysis in 2003. The FEC Railway (8MT1450) lies adjacent to, but outside of, the project area to the south and is listed as a historic resource group with the Florida Division of Historic Resources. The rail line, however, will not be impacted by the proposed activities.

In 2016, the Corps archaeologists did not identify any cultural resources during reconnaissance and shovel testing in an additional, smaller tract (4.5 acres) that was added to the proposed DMMA footprint on the east side of the north-to-south drainage feature in the project area to assess the potential for unrecorded archaeological sites. Based upon the results of the two surveys, the Corps

determined that the proposed activities will have no effect on historic properties.

3.10 NATIVE AMERICANS

No portion of the proposed DMMA exists within or adjacent to known Native American-owned lands, reservation lands, or Traditional Cultural Properties. However, Native American groups have lived throughout this region in the past and their decedents continue to live within the State of Florida and throughout the United States. Pursuant to Section 106 of the National Historic Preservation Act (54 U.S.C. §306108), obligations regarding the Corps Trust Responsibilities to federally-recognized Native American Tribes, and in consideration of the Burial Resources Agreement between the Corps and the Seminole Tribe of Florida, prior consultation on the project has not indicated any historic use of the Project area. The Corps initiated updated consultation with the appropriate federally-recognized tribes on the Preferred Alternative on September 21, 2017 (Appendix A, "Agency Coordination"). Consultation is ongoing and the Corps will complete it prior to project implementation.

4 ENVIRONMENTAL EFFECTS

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

4.1 WETLANDS

No Action Alternative. The No Action Alternative is not expected to affect wetlands.

Preferred Alternative, Construction of DMMA O-23. Section 3.1 describes the 0.95 acres of wetlands identified by FDEP located within the total project site. The construction proposes to impact 0.3 acres of the identified wetlands, resulting in 0.06 acres of functional loss. However, preservation of existing stormwater ponds and construction of a perimeter ditch will provide foraging habitat for various species and will exceed the 0.06 acres of functional loss resulting from the project. The Corps has determined the project will be self-mitigating due to the minor functional loss and subsequent functional lift gained through preservation and construction of water features.

Although the 3.66 acres of ditches are jurisdictional waters of the US, they are not special aquatic sites, wetlands, or aquatic resources, which provide high function and services to aquatic species. The limited function and services provided by the agricultural ditches will be replaced “in kind” by the 4.39 acres of ditches that would be constructed around the perimeter of the DMMA. The 4,000 linear ft. of 20-ft. wide perimeter ditch constructed are similar in conveyance and habitat and will more than compensate for the 800 linear ft. of 20-ft. wide irrigation ditch authorized for impact. The basic concept of “self-mitigation” is not unusual and is accepted by the Corps in authorizing impacts to road side ditches as a result of transportation projects. Self-mitigation occurs when a project possesses environmental benefits that outweigh and override any adverse consequences of the project. The Council of Environmental Quality recognizes this concept, though not by name, when it explains that where sufficient mitigation is intrinsic to a proposal, an agency may conclude that the overall effects of a proposal are below the threshold for requiring an Environmental Impact Statement.

4.2 WILDLIFE RESOURCES

4.2.1 VEGETATION AND WILDLIFE COMMUNITIES

No Action Alternative. The No Action Alternative is not expected to affect vegetation and wildlife communities.

Preferred Alternative, Construction of DMMA O-23. Construction of DMMA O-23 would require the clearing of approximately 11.5 acres of pine flatwoods and sand pine trees from the western and southern sides of the project area. Species utilizing the 11 acres of habitat would become displaced. However, similar habitat is located nearby both within and adjacent to the project area; the displaced species will likely relocate to a similar, suitable habitat.

4.2.2 MIGRATORY BIRDS

No Action Alternative. The No Action Alternative will not affect migratory birds in the project area.

Preferred Alternative, Construction of DMMA O-23. Migratory birds may pass through and use areas in or adjacent to the project area. Temporary displacement and noise related to use of heavy construction equipment could disturb nesting and foraging birds at the upland placement site. Kill deer were documented nesting in the area in 2017. This effect would be short-term and limited to the immediate area of construction activities. There would be sufficient habitat that can be used by displaced birds during construction. Nesting of shorebirds that prefer open, unvegetated areas may increase once construction of the DMMA is complete and also between placement events. This behavior has been observed at other DMMAs.

The Corps, in conjunction with the USFWS and FWC, has developed guidelines to avoid and monitor potential effects to migratory birds, including nesting shorebirds. The Corps has developed a suite of contractual specifications for contractors to implement during construction where nesting migratory birds may be present. The contractor will keep all construction activities under surveillance, management, and control to prevent effects to migratory bird nesting. The contractor may be held responsible for harming or harassing the birds, their eggs, or their nests present in the site as a result of the construction activities.

4.3 THREATENED AND ENDANGERED SPECIES

No Action Alternative. The No Action Alternative will not affect threatened and endangered species.

Preferred Alternative, Construction of DMMA O-23. Construction of the O-23 DMMA may affect, but is not likely to adversely affect, listed species within the project area. In accordance with Section 7 of the ESA, the Corps will initiate consultation with the USFWS and request concurrence on the below effects determinations.

Additional analysis, by species is provided below:

4.3.1 FLORIDA PERFORATE CLADONIA

The Corps has determined that the proposed DMMA may affect, but is not likely to adversely affect, the Florida perforate cladonia. This determination is based on the relocation of this species prior to construction of the DMMA to a similar, suitable habitat nearby within the project lands. With proper precautions, this species has been successfully relocated in previous, non-Corps related projects and it is likely relocation would be successful for this project.

4.3.2 EASTERN INDIGO SNAKE

The Corps has determined that the proposed DMMA may affect, but is not likely to adversely affect, eastern indigo snake. This determination is based on the inclusion and implementation of USFWS' Standard Protection Measures for the Eastern Indigo Snake (2013).

4.3.3 GOPHER TORTOISE

The Corps will conduct a survey prior to construction and if gopher tortoises are present within the construction footprint, an approved/permitted contractor will relocate all gopher tortoises prior to the start of construction.

4.4 AIR QUALITY

No Action Alternative. The No Action Alternative will not affect air quality in the project area.

Preferred Alternative, Construction of DMMA O-23. Minor, temporary reduction of air quality will occur due to emissions from construction equipment (i.e. excavators, backhoes, dozers). There would only be a temporary effect associated with the project and air quality would return to ambient levels once construction has concluded. No permanent adverse effects to the environment are expected.

4.5 WATER QUALITY

No Action Alternative. The No Action Alternative would not affect water quality in the project area.

Preferred Alternative, Construction of DMMA O-23. Placement of a slurried dredged material at O-23 is not expected to result in the degradation of local water quality. The design features and facility operations would ensure that discharge from the containment basin during dredging operations meets state Class III water quality standards for turbidity and other parameters. This dredge return water would be pumped either directly into Warner Creek adjacent to the O-23 property or via pipeline back to the OWW on the St. Lucie River. Construction details of the dredge return water pipeline would be determined during final design. The facility design and management plans also contain provisions to control storm water runoff between dredging operations. Erosion control techniques such as seeding and/or sodding of slopes, as well as the construction of a perimeter ditch system, will prevent degradation of off-site surface waters. However, minor, temporary degradation of surface water quality may occur during construction of the dredged material management site. The site operator would gradually release any ponded storm water through the weir system. Retention and gradual release of storm water would serve to minimize turbidity and to simulate natural discharge patterns following rainfall. Additionally, BMPs such as turbidity barriers would be employed to prevent turbidity in Warner Creek and/or the OWW depending on where the dredge discharge pipeline empties.

The project area includes a large scale stormwater retrofit known as "Leilani Heights/ Warner Creek Stormwater Quality Retrofit" Phase I-IV with the goal to enhance water quality in Warner Creek Drainage Basin and provide pollutant relief to the St. Lucie Estuary. However, the O-23 DMMA project is not expected to adversely affect the current or future retrofit phases. Martin County has completed Phase I-III and Phase IV proposed for the future. Phase I created exfiltration trenches and swells, Phase II created a dry detention, Phase III created a wet detention at the decommissioned Beacon 21 site, and Phase IV will create a Stormwater Treatment Area on the “triangular” piece of property on the east side of Warner Creek, not the O-23 site.

4.6 NOISE

No Action Alternative. The No Action Alternative would not affect noise in the project area.

Preferred Alternative, Construction of DMMA O-23. Temporary increases in noise levels generated by heavy equipment would occur within the project vicinity during construction of the O-23 DMMA. Since the increases to the current level of noise would be localized and minor, there would only be

a temporary effect associated with the project and noise levels would return to background levels once construction has concluded. No significant permanent adverse effects to the environment are expected.

4.7 AESTHETIC RESOURCES

No Action Alternative. The No Action Alternative would not affect aesthetics in the project area.

Preferred Alternative, Construction of DMMA O-23. The project will affect the short-term aesthetics of the area due to land moving and construction activities. Side slopes will be seeded/sodded after final grading in accordance with standard construction BMPs to ensure re-vegetation of disturbed soils. Site O-23 is planned for use over an extended time period, there may be an effect on the long-term aesthetics of the area. However, these long-term effects on aesthetics will be minimized and mitigated by the planned buffer zone to be preserved in a natural state around the confined disposal facility. It appears that the existing vegetation will be sufficient to mask the site at this time. Temporary air emissions and increased noise can also temporarily impact aesthetics. However, construction activities are expected to only have minor impacts to the aesthetic quality within the project area.

4.8 SOCIOECONOMICS

No Action Alternative. If Site O-23 is not utilized, the Corps would not construct the DMMA and would coordinate with FIND to select an alternative DMMA. This may require FIND to obtain it at additional cost. This would in turn increase the timeframe before any dredging could occur due to a lack of a suitable and available management area, creating an adverse effect on navigation by decreasing public safety for vessels transiting the area and indirectly impacting the local economy.

Preferred Alternative, Construction of DMMA O-23. There would be short-term localized generation of revenues associated with construction of the DMMA. The associated maintenance dredging of the federal channels would result in a moderate long-term secondary benefit through the encouragement of commercial and recreational navigation.

4.9 CULTURAL RESOURCES

No Action Alternative. The No Action Alternative would have no effect to cultural resources listed or eligible for listing in the NRHP.

Preferred Alternative, Construction of DMMA O-23. The Preferred Alternative will have no effect to cultural resources listed or eligible for listing on the NRHP. An unexpected cultural resources finds clause will be included in the project specifications. In the event that any archaeological resource is uncovered during construction activities, all activities will be halted immediately within the area. Once reported, USACE staff will initiate coordination with the appropriate federal, tribal and state agencies to determine if archaeological investigation is required. Additional work in the area of the discovery will be suspended at the site until all federal and state regulations have been successfully completed and USACE staff members provide further directive.

4.10 NATIVE AMERCANS

No Action Alternative. There would be no effect to Native Americans with the No Action Alternative.

Preferred Alternative, Construction of DMMA O-23. There would be no effects to Native American lands or cultural interests with the Preferred Alternative.

4.11 CUMULATIVE EFFECTS

Cumulative effects are defined in 40 CFR §1508.7 as those effects that result from "...the incremental effect 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. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time."

The Corps assessed the cumulative environmental effects for the proposed project in accordance with guidance provided by the President's Council on Environmental Quality. Construction of the O-23 DMMA is not expected to have significant effects on the environment individually or cumulatively. The O-23 DMMA is not expected to impact any of the Phase I-IV retrofit features providing that the O-23 pipeline bypasses the downstream wet retention facility on Warner Creek and empties directly into the OWW. However, if the O-23 discharge pipe empties directly into Warner Creek adjacent to the project site, the O-23 DMMA "ambient dredge water discharge" may affect water flowing into the wet retention and OWW.

When compared to the available land area bordering the length of the IWW and OWW, site O-23 represents a minor percentage of the total acreage available. The construction of reusable material management areas such as site O-23 may result in a minor long-term benefit through the preservation of environmentally-sensitive lands that may have been impacted by construction of future single-use sites.

The general public and state and local governments could have permitted other activities in or around the project area. Federal activities have been evaluated under NEPA directly for each project. Other projects that take place in-water or would impact wetlands would be evaluated under a permit issued by the Corps' Regulatory Division. These activities are not expected to have significant effects on the environment individually or cumulatively.

4.12 UNAVOIDABLE ADVERSE ENVIRONMENTAL EFFECTS

No Action Alternative. Not constructing the O-23 DMMA may result in the lack of suitable alternatives for placement of dredged material from local waterways within Martin County which could result in adverse effects to the environment if vessels that run aground are damaged and spill oil or other fluids.

Preferred Alternative, Construction of DMMA O-23. Unavoidable adverse environmental effects associated with the clearing activities of the existing pine forest and wetlands are expected. However, preservation of existing wetlands and forest habitat within the project boundary and

construction of a perimeter ditch will provide suitable habitat for displaced species.

5 ENVIRONMENTAL COMMITMENTS

The Corps will comply with all terms and conditions of the USFWS consultation including the 2013 Standard Protection Measures for the Eastern Indigo Snake. The Corps also commits to avoiding, minimizing, or mitigating for adverse effects during construction activities by including the following commitments in the contract specifications.

5.1 PROTECTION OF FISH AND WILDLIFE RESOURCES

The contractor will keep construction activities under surveillance, management, and control to minimize interference with, disturbance to, and damage to wildlife resources. Species that require specific attention along with measures for their protection will be listed in the contractor's Environmental Protection Plan prior to the beginning of construction operation.

5.2 THREATENED AND ENDANGERED SPECIES PROTECTION

The Corps and its contractors commit to avoiding and minimizing any potential adverse effects to Florida perforate cladonia, eastern indigo snake, and gopher tortoise during construction activities. The contractor will also include protection criteria for endangered and threatened species protections in their Environmental Protection Plan.

5.3 WATER QUALITY

The Corps' construction contractor will prevent oil, fuel, or other hazardous substances from entering the air or water through design and procedural controls. All wastes and refuse generated by project construction would be removed and properly disposed. The Corps' contractor will implement a spill contingency plan for hazardous, toxic, or petroleum material.

5.4 CULTURAL RESOURCES

The project specifications include an unexpected cultural resources finds clause. In the event any archaeological resources are discovered during construction, work will be halted immediately within the area. Once reported, Corps staff will initiate coordination with the appropriate federal, tribal, and state agencies to determine if archaeological investigation is required. Additional work in the area of the discovery will be suspended at the site until achieving compliance with all applicable federal and state regulations and Corps staff members provide further directive.

5.5 PROTECTION OF MIGRATORY BIRDS

The Corps will incorporate the standard migratory bird protection protocols into the project plans and specifications and will require the contractor to abide by those requirements.

6 COMPLIANCE WITH ENVIRONMENTAL REQUIREMENTS

6.1 NATIONAL ENVIRONMENTAL POLICY ACT OF 1969 (42 U.S.C. §4321 *ET SEQ.*)

The Corps compiled the best available information and data to assess potential environmental effects on the human environment as they relate to this project and documented them within this EA and Proposed FONSI. The Draft EA and Proposed FONSI shall be released for a 30-day public review period and will be available on a publically accessible website listed in Section 7.2 of this EA.

6.2 ENDANGERED SPECIES ACT OF 1973 (16 U.S.C. §1531 *ET. SEQ.*)

The Corps will initiate informal consultation under Section 7 of the ESA with the USFWS. This project will be fully coordinated under the ESA and will be in full compliance with the Act. Copies of relevant correspondence are located in Appendix A, "Agency Coordination."

6.3 FISH AND WILDLIFE COORDINATION ACT OF 1958 (16 U.S.C. §§661-665; 665A; 666; 666A-666C)

The Corps is coordinating with the USFWS prior to construction for each activity covered in this EA and Proposed FONSI in accordance with the Fish and Wildlife Coordination Act (FWCA). The Corps has prepared and will coordinate a memorandum for the record (MFR) with USFWS to meet the intent of the FWCA. This MFR will be included within Appendix A. This project is in full compliance with this Act.

6.4 NATIONAL HISTORIC PRESERVATION ACT OF 1966 (54 U.S.C. §300101 *ET. SEQ.*)

The Preferred Alternative is in compliance with Section 106 of the National Historic Preservation Act (54 U.S.C. §306108). As part of the requirements and consultation process contained within the National Historic Preservation Act implementing regulations of 36 CFR Part 800, this project is also in compliance through ongoing consultation with the Archaeological and Historic Preservation Act (16 U.S.C. §§469-469c) (PL93-29), Archeological Resources Protection Act (16 U.S.C. §§470aa-470mm) (PL96-95), American Indian Religious Freedom Act (42 U.S.C. §§1996 and 1996a) (PL 95-341), Native American Graves Protection and Repatriation Act (25 U.S.C. §3001 *et. seq.*), Executive Order 11593, 13007, and 13175, the Presidential Memo of 1994 on Government to Government Relations and appropriate Florida Statutes. The Corps initiated consultation with the Florida SHPO, the Miccosukee Tribe of Indians of Florida, and the Seminole Tribe of Florida on September 21, 2017 (Appendix A, "Agency Coordination"). Consultation is ongoing and the Preferred Alternative will be in compliance with the goals of this Act upon completion of coordination as stated above.

6.5 CLEAN WATER ACT OF 1972 (33 U.S.C. §1251 *ET. SEQ.*)

See Section 4.1. To comply with the Section 401, the Corps will submit an ERP application which is the designated process obtain water quality certification from the State of Florida. Additionally, the Corps will comply with the pertinent requirements for stormwater discharges associated with construction site stormwater discharges as the construction site is greater than one acre. Future dredging and material placement activities will require a separate permitting action.

6.6 CLEAN AIR ACT OF 1972 (42 U.S.C. §7401 *ET. SEQ.*)

The short-term effects from construction equipment associated with the project will not

significantly affect air quality. Air quality permits are not required for this project. Martin County is designated as an attainment area for federal air quality standards under the CAA. Because the project is located within an attainment area, USEPA's General Conformity Rule to implement Section 176(c) of the CAA (42 U.S.C. §7506(c)) does not apply and a conformity determination is not required.

6.7 COASTAL ZONE MANAGEMENT ACT OF 1972 (16 U.S.C. §1451 *ET. SEQ.*)

The Corps evaluated this project in accordance with Section 307 of the Coastal Zone Management Act (16 U.S.C. §1456). A Federal Consistency determination in accordance with 15 CFR 930 Subpart C is included in this report as Appendix B. State Consistency review will be performed following the public coordination of this EA and Proposed FONSI.

The Corps concluded that the project has no unacceptable impacts and is consistent to the maximum extent practicable with the Florida Coastal Management Program. The Corps anticipates receiving concurrence from the State on this determination.

6.8 FARMLAND PROTECTION POLICY ACT OF 1981 (7 U.S.C. §4201 *ET. SEQ.*)

This project will not affect any prime or unique farmland. This Act is not applicable.

6.9 WILD AND SCENIC RIVER ACT OF 1968 (28 U.S.C. §1271 ET. SEQ.)

This project will not affect any designated wild and scenic river reaches. This Act is not applicable.

6.10 MARINE MAMMAL PROTECTION ACT OF 1972 (16 U.S.C. §1361 *ET. SEQ.*)

This project does not include any in-water work. This Act is not applicable.

6.11 ESTUARY PROTECTION ACT OF 1968 (16 U.S.C. §§1221-26)

This project will not affect any designated Estuary of National Significance. This Act is not applicable.

6.12 FEDERAL WATER PROJECT RECREATION ACT

The principles of the Federal Water Project Recreation Act (16 U.S.C. §460l-12 *et seq.*) have been fully considered.

6.13 MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT OF 1976 (16 U.S.C. §801 *ET. SEQ.*)

This project will not affect any designated Essential Fish Habitat. This Act is not applicable.

6.14 SUBMERGED LANDS ACT OF 1953 (43 U.S.C. § 1312 *ET. SEQ.*)

The project will not occur on submerged lands of the State of Florida. This Act is not applicable.

6.15 COASTAL BARRIER RESOURCES ACT AND COASTAL BARRIER IMPROVEMENT ACT OF 1990 (16 U.S.C. §3501 *ET. SEQ.*)

Coastal barrier resources are not in the project area, and thus will not be affected. These Acts are not applicable.

6.16 RIVERS AND HARBORS ACT OF 1899 (33 USC §401 *ET. SEQ.*)

The proposed work will not occur in navigable waters of the United States. This Act is not applicable.

6.17 ANADROMOUS FISH CONSERVATION ACT (16 U.S.C. §§757A-757G)

Anadromous fish species are not found in the project area. This Act is not applicable.

6.18 MIGRATORY BIRD TREATY ACT (16 U.S.C. §§703-712) AND MIGRATORY BIRD CONSERVATION ACT (16 U.S.C. §§715-715D, 715E, 715F-715R)

The project plans and specifications will include migratory bird protection measures for construction activities at the upland placement areas. If nesting activities occur within the construction area, the Corps or its contractor will place appropriate buffers around nests to ensure their protection. The project is in compliance with these Acts.

6.19 MARINE PROTECTION, RESEARCH, AND SANCTUARIES ACT (33 U.S.C. §1401 *ET. SEQ.*)

Ocean disposal is not a component of this project; therefore, this Act is not applicable.

6.20 UNIFORM RELOCATION ASSISTANCE AND REAL PROPERTY ACQUISITION POLICIES ACT OF 1970 (42 U.S.C. §4601 *ET. SEQ.*)

The purpose of this Act is to ensure that owners of real property to be acquired for federal and federally assisted projects are treated fairly and consistently and that persons displaced as a direct result of such acquisition will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole. This project will not acquire property. Therefore, this Act is not applicable.

6.21 E.O. 11990, PROTECTION OF WETLANDS

See Section 4.1. This project is in compliance with the goals of this Order.

6.22 E.O. 11988, FLOOD PLAIN MANAGEMENT

To comply with E.O. 11988, the policy of the Corps will formulate projects that, to the extent possible, avoid or minimize adverse effects associated with the use of the floodplain and avoid inducing development in the floodplain unless there is no practicable alternative. The majority of the project site is located outside of the mapped floodplain, which is defined by E.O. 11988 as an "area which has a one percent or greater chance of flooding in any given year." There is a small portion of the construction footprint (< 3 acres) located within the mapped floodplain near the southern boundary. The proposed construction associated with this project will not encourage occupancy or support direct and indirect development of the floodplain. The project is in compliance with the Order.

6.23 E.O. 12898, ENVIRONMENTAL JUSTICE

This E.O. mandates that each federal agency make environmental justice part of the agency mission and to address, as appropriate, disproportionately high and adverse human health or environmental effects of the programs and policies on minority and low-income populations. There are no disproportionate adverse effects to minority or low income populations resulting from the implementation of the project. The project is in compliance with the Order.

6.24 E.O. 13045, DISPARATE RISKS INVOLVING CHILDREN

The E.O. mandates that each federal agency make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children and ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks. The Preferred Alternative is not expected to affect children disproportionately from other members of the population and will not increase any environmental health or safety risk to children. The project is in compliance with the Order.

6.25 E.O. 13089, CORAL REEF PROTECTION

This E.O. applies to coastal projects, especially those which might directly or indirectly impact coral reefs. There are no coral reefs or hardbottoms within the project footprint or project vicinity; therefore, this E.O. is not applicable.

6.26 E.O. 13112, INVASIVE SPECIES

There is low potential for introducing non-native species to this region and the benefits of the proposed project outweigh the very slight potential for introducing non-native species for this region. Best management practices will be followed to minimize the risk of introduction of invasive species to the project area. The project is in compliance with the Order.

6.27 E.O. 13186, MIGRATORY BIRDS

This E.O. requires, among other things, a Memorandum of Understanding (MOU) between the federal agency and the USFWS concerning migratory birds. Neither the Department of Defense MOU nor the the Corps' Draft MOU clearly address migratory birds on lands not owned or controlled by the Corps. For many Corps' civil works projects, including the proposed project, the real estate interests are provided by the non-federal sponsor (as is the case here). Control and ownership of the project lands remain with a non-federal interest. Measures to avoid the destruction of migratory birds and their eggs or hatchlings are described in a section above on the Migratory Bird Treaty Act. The Corps will include standard migratory bird protection requirements in the project plans and specifications and will require the contractor to abide by those requirements.

7 PUBLIC/AGENCY COORDINATION

7.1 SCOPING AND DRAFT EA

The Corps issued a scoping notice for this project on August 21, 2017 and circulated it to applicable federal, state, and local agencies, as well as interested non-governmental organizations for a period of 30 days. Comments were received from Martin County Engineering Department (Appendix A) requesting additional information which is provided in this draft EA. The Corps will provide a Notice of Availability of the Draft EA and Proposed FONSI on the Corps environmental documents website for 30 days and incorporate any comments received on the draft into the Final NEPA document.

http://www.saj.usace.army.mil/About/DivisionsOffices/Planning/EnvironmentalBranch/EnvironmentalDocuments.aspx

(On that page, click on the "+" next to "Martin County" and scroll down to "Construction of Intracoastal Waterway Dredged Material Management Area O-23." The documents available for download include the FONSI, EA, and associated appendices).

7.2 AGENCY COORDINATION

The Draft EA, Proposed FONSI, and associated appendices will be provided to the following agencies and interested parties for a 30-day comment period. Recipients include:

Federal Agencies
USFWS – Ecological Services
USEPA – Region 4 Water Protection Division
U.S. Coast Guard – 7th District

Tribal Nations
Miccosukee Tribe of Indians of Florida
Seminole Tribe of Florida - Tribal Historic Preservation Officer
Poarch Band of Creek Indians
Muscogee Nation
Kialegee Tribal Town
Alabama-Quassarte Tribal Town
Thlopthlocco Tribal Town
Seminole Nation of Oklahoma

State Agencies
FDEP – Florida Coastal Office, Coastal Management Program (Florida State Clearinghouse)
FWC – Habitat and Species Conservation
SHPO – Florida State Historic Preservation Officer

Local Agencies
Town of Jensen Beach – town officials

Martin County – county officials

Non-Governmental Organizations
Florida Shore and Beach Preservation Association
Audubon Society – Florida State Office
Sierra Club – Florida Chapter
Florida Wildlife Federation

8 LIST OF PREPARERS

Name	Expertise	Role in Preparation
Paul DeMarco, Senior Biologist	NEPA/Senior Biologist – 18 years	Author
Robin Moore, Archaeologist	Archaeology/Cultural Resources	Cultural Resource Sections Author
Richard Butler, Biologist	Water Quality – 7 years	Water Quality Sections Author
Jason Spinning, Biologist	Supervisory Biologist	Document Reviewer
Angela Dunn, Environmental Branch Chief	Supervisory Biologist	Document Reviewer
Marla Gillman	Civil Works/Attorney	Legal Reviewer
Rebecca Onchaga	Technical Writer/Editor	Document Reviewer and Format

All listed individuals are employees of the Corps of Engineers, unless otherwise listed.

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APPENDIX A

Pertinent Correspondence

Construction of Intracoastal Waterway Dredged Material Management Area O-23
Martin County, Florida

US Army Corps of Engineers

JACKSONVILLE DISTRICT

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
701 San Marco Boulevard
JACKSONVILLE, FLORIDA 32207-8175

Planning and Policy Division
Environmental Branch

AUG 2 1 2017

To Whom It May Concern,

The U.S. Army Corp of Engineers (Corps), Jacksonville District is working with the Florida Inland Navigation District (FIND) to determine a placement area for dredged material from federal channels within Martin County, Florida (Figures 1 & 2). The Corps is gathering information to define issues and concerns that will be addressed in an analysis to be prepared in compliance with the National Environmental Policy Act (NEPA). Currently there are two potential alternatives being evaluated for placement of the dredged material.

In order to maintain the Intracoastal Waterway (IWW) and Okeechobee Waterway (OWW) at the federally authorized depth and ensure continued navigability within each channel, dredged material management plans were developed to determine the 50-year storage requirement for each channel and identify possible upland containment sites for the dredged material.

To address the dredged material management requirements of the IWW and OWW, several upland sites were identified as potential solutions for sediment storage throughout several Florida counties. The alternatives being considered for material placement for this action within Martin County include: 1) no action; and 2) upland dredged material management area O-23. O-23 is located in the town of Jensen Beach and is approximately 0.5 miles north of the St. Lucie River's northern shoreline (Figure 3). The 50-year storage capacity requirement within this specific area is 243,984 cy. The 50-year storage capacity for O-23 is projected to be 247,902 cy; this exceeds the storage requirement by approximately 5,863 cy. Issues that are anticipated include water quality, threatened and endangered species, and cultural resources.

Please submit any comments you may have in writing to the letterhead address within 30 days of the date of this letter. If you have questions, please contact Ms. Kelci Mynhier at phone number (904) 232-2050 or Ms. Terri Jordan-Sellers at phone number (904) 232-1817, or email at Kelci.N.Mynhier@usace.army.mil or Terri.Jordan-Sellers@usace.army.mil. Thank you in advance for your participation.

Sincerely,

FOR

Gina P. Ralph
Chief, Environmental Branch

Encl:

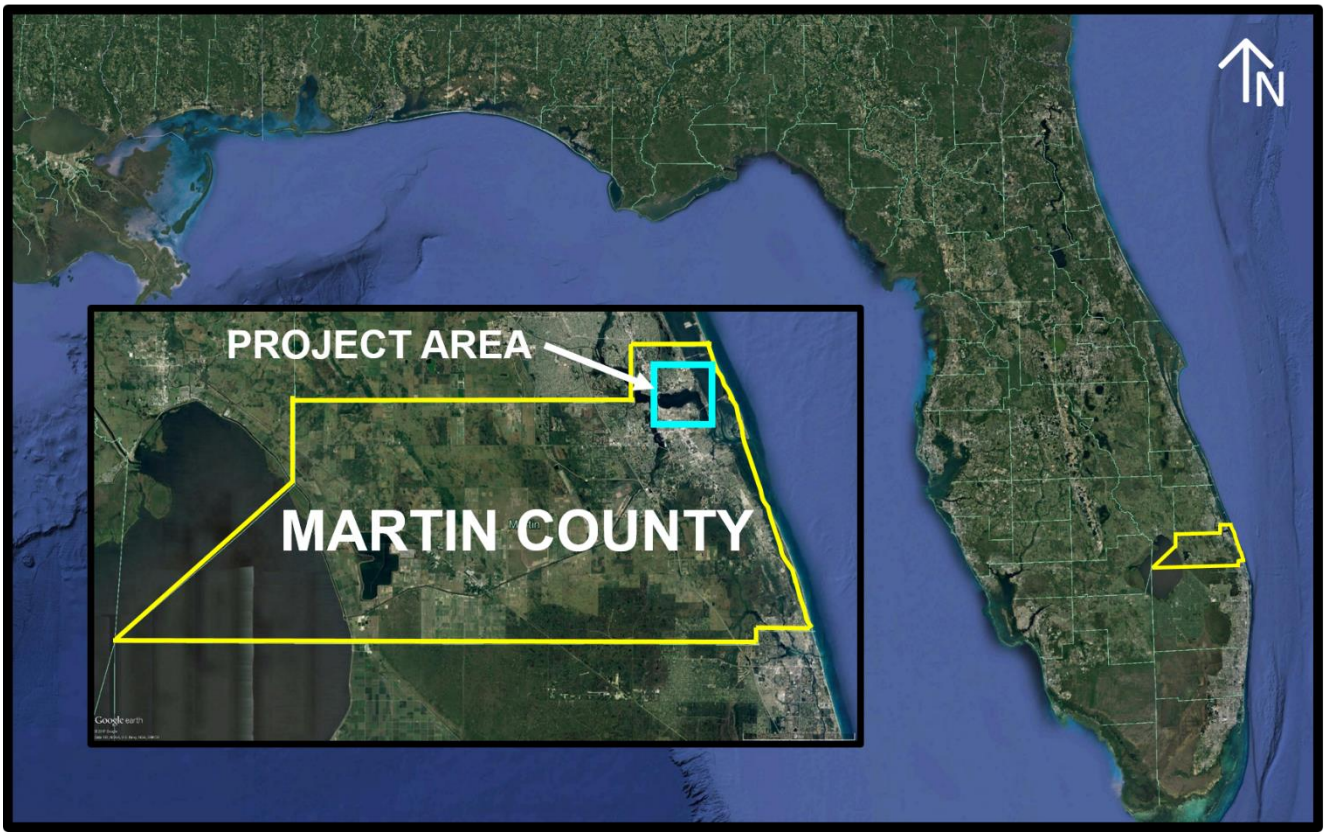

Figure 1. Project vicinity.

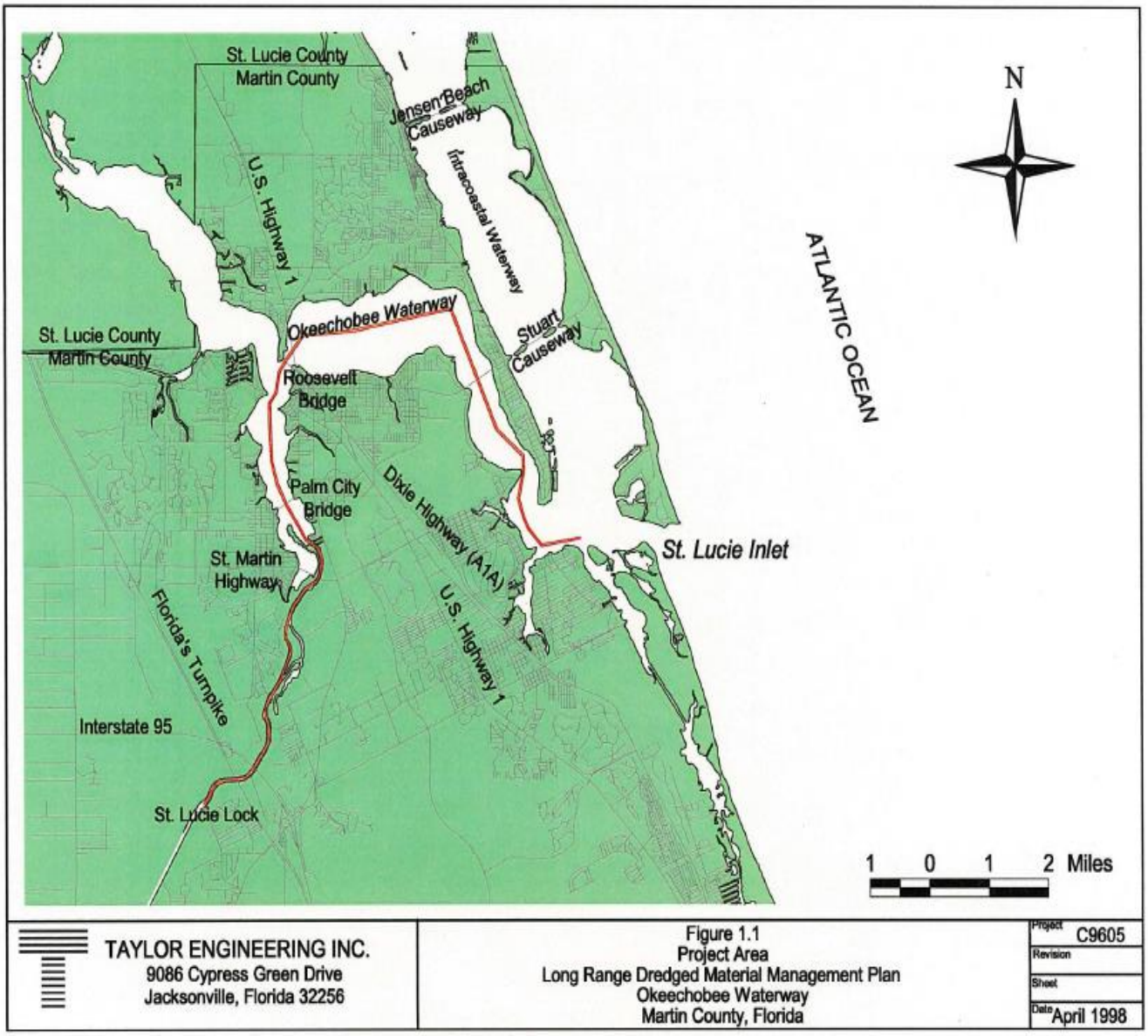

Figure 2. Location of the Intracoastal Waterway (IWW) and Okeechobee Waterway (OWW) in Martin County, Florida.

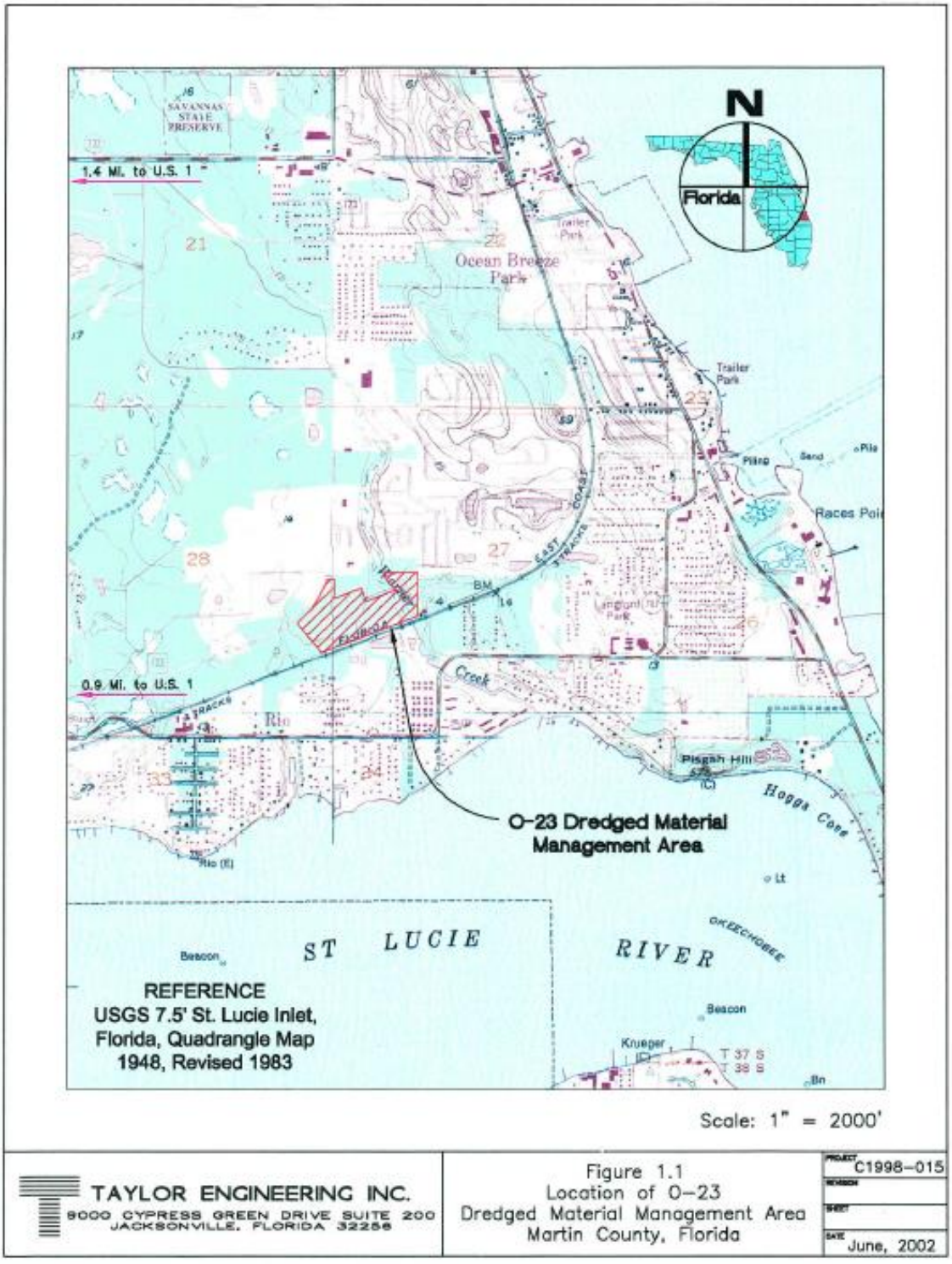

Figure 3. Location of potential DMMA site O-23.

MARTIN COUNTY
BOARD OF COUNTY COMMISSIONERS
2401 S.E. MONTEREY ROAD • STUART, FL 34996

DOUG SMITH
Commissioner, District 1

EDWARD FIELDING
Commissioner, District 2

HAROLD E. JENKINS, II
Commissioner, District 3

SARAH HEARD
Commissioner, District 4

EDWARD V. CIAMPI
Commissioner, District 5

TARYN KRYZDA, CPM
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http://www.martin.fl.us

Engineering Department

September 14, 2017

Ms. Kelci Mynhier
Department of the Army
Jacksonville District Corps of Engineers
701 San Marco Boulevard
Jacksonville, Florida 32207-8175

via e-mail: Kelci.N.Mynhier@usace.army.mil

RE: Dredged Material Management Area 0-23 in Jensen Beach, FL

Dear Ms. Mynhier:

Thank you for the opportunity to comment on the proposed location for placement of dredged materials within Martin County. Please be advised that the Dredged Material Management Area (DMMA) 0-23 located in Jensen Beach, Florida is 0.5 miles upstream of the St. Lucie River and Estuary, an impaired waterbody. Warner Creek, a tributary to the St. Lucie River passes through the site on the eastern portion. Martin County has invested over $4 million in water quality retrofits, both upstream and downstream of the DMMA O-23 location, in order to meet water quality targets that have been imposed upon the County and other stakeholders in the St. Lucie River Basin Management Action Plan.

Before we can provide a full review and finalize our comments, we would like answers to the following questions.

- Where is the construction access to the proposed site?
- How will dredged material be transported to this site?
- The proposed DMMA is immediately upstream of a County stormwater treatment facility; how will the dredged material be treated (de-watered); and how will the return water be maintained and what methods will be employed for disposal?
- Does the capacity of the proposed facility account for the extremely high water content of the dredged material, which is known to retain water for extended periods?
- How will the facility be emptied?
- Has the Corps evaluated the impact on the surrounding properties, including the fact that the property immediately adjacent to the north and to the east has an approved Master Plan for residential development? The approved Master Plan relies on access over the proposed location. How will the facility be operated should those parcels become developed?

It should be noted that the Martin County Comprehensive Growth Management Plan provides for the following Objective and Policies:

Objective 4.14A. To ensure the availability of dredge spoil disposal sites to address identified needs.

Policy 4.14A.1. Dredged material management. Martin County shall adhere to the dredged material management concept for the Intracoastal Waterway in Martin County, as established by the Florida Inland Navigation District, as follows:

(1) In the vicinity of St. Lucie Inlet, material dredged from the Waterway channels will be managed through the use of beach disposal combined with back-up upland storage capability.

(2) In all other segments of the Waterway, dredged material will be placed in diked upland management facilities with existing or developable road access.

(3) Centralized upland sites will be established in a minimum number of locations within operating reach of the Waterway.

(4) Sites will be operated and maintained as permanent facilities in which dredged material will be actively managed.

Policy 4.14A.2. Inspections for future dredge spoil sites. Initial considerations for future dredge spoil sites shall be based on site inspections by a biologist and an engineer. The site inspection shall include:

- Preliminary identification of wetlands;
- Initial assessment of vegetation communities, habitat and environmental constraints;
- Presence of protected wildlife and habitat;
- Existing and adjacent land use;
- Site topography;
- General soil condition;
- Existing or potential upland road access;
- Possible pipeline routes;
- Suitability for site development;
- Adequate uplands for central storage requirements (minimum 5 acres desired);
- Prior development activity of site; and
- Obvious archeological features.

Policy 4.14A.3. Criteria for dredge material management sites. Dredge material management sites shall be judged on their ability to satisfy criteria in three broad areas:

(1) Engineering/operational considerations:

- Sufficient capacity to meet the storage requirements for the reach in which the site is located;
- Sufficient dike material on site to construct a 15-foot dike without excavating the basin interior to a depth beyond reasonable engineering considerations;
- Pumping distances from dredging area to storage site of no more than 10 miles, with 3 to 6 miles preferred;
- Pipeline access that minimizes environmental and operational impacts such as extensive marsh crossings, significant elevation changes or road/railroad crossings; and
- Upland access with existing or potential road service;

(2) Environmental considerations:

- The goal is complete avoidance of wetlands impacts; where it cannot be met, impacts will be allowed consistent with Martin County wetland policies;
- Upland impacts such as quality of habitat, presence or potential presence of threatened or endangered species, uniqueness, maturity, and aesthetic quality of vegetation (e.g., mature hardwood canopy versus second-growth saplings), and the extent of site disturbance by prior development;
- Buffer area outside of containment area to serve as undisturbed vegetative buffer to adjacent development, preservation of unique environmental values or the ability to serve as a dedicated conservation easement to facilitate permitting;
- Archeological value as identified by field inspection and federal and state records to avoid destruction of such features; and
- Groundwater conditions to ensure that measures such as hydrology and geographic separation can be taken to avoid saltwater and other groundwater contamination.

(3) Socioeconomic or cultural considerations:

- Land use such as avoidance of adjacent residential uses, minimal existing site development, lands previously disturbed by clearing, excavation, timber harvesting or draining;
- Zoning and comprehensive plans to determine local government jurisdiction, satisfy relevant local regulations as allowed by law and address community concerns, with priority given to industrial or agricultural uses;
- Site ownership to obtain permission for phase II site evaluations and to reduce the number of individual property owners involved.

Therefore, we ask the Corps to:

1. Perform an environmental assessment for listed flora and fauna on the properties. Listed species should be relocated to on-site preservation areas where practicable and in compliance with state and federal listing agency requirements.
2. Provide a map of the proposed diked upland management facilities.
3. Retain existing native vegetation during construction activities to act as buffers between adjacent land uses, and to minimize nuisance dust, noise and air pollution.
4. Implement a series of best management practices (BMPs) to prevent any further water quality impacts to Warner Creek and the downstream St. Lucie River. BMPs include, but are not limited to:
   - a 75-foot setback from Warner Creek;
   - a constructed berm around the dredged materials to prevent any offsite erosion during storage at this location;
   - an annual inspection to ensure berm integrity is maintained during storage;
   - water quality monitoring of any stormwater outlet locations; and
   - public notice (signs) that the location is a Dredged Materials Management Area.

Should you have questions or need us to further clarify our questions and comments, please contact us.

Sincerely,

Lisa A. Wichser, P.E., CFM
County Engineer

Copy: Darryl Deleeuw, Martin County Environmental Administrator
Deborah Drum, Martin County Ecosystem Restoration & Management Manager
Clyde Dulin, Martin County Comprehensive Planning-Site Compliance Administrator
Dianne Hughes, Martin County Senior Ecosystem Specialist
Kathy Fitzpatrick, Martin County Coastal Engineer

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207-8175

Planning and Policy Division
Environmental Branch

May 19, 2020

To Whom It May Concern:

Pursuant to the National Environmental Policy Act (NEPA) and the U.S. Army Corps of Engineers (Corps) Regulation (33 CFR 230.11), this letter constitutes the Notice of Availability of the draft Environmental Assessment (EA) and Proposed Finding of No Significant Impact (FONSI) for construction of a dredged material management area at Site O-23 located in Martin County, Florida.

A copy of the draft EA is available to the public on the Corps' Environmental planning website, under Martin County: http://www.saj.usace.army.mil/About/DivisionsOffices/Planning/EnvironmentalBranch/EnvironmentalDocuments.aspx

(On that page, click on the "+" next to "Martin County" and scroll down to "Construction of Dredged Material Management Area O-23." The documents available for download include the draft FONSI, draft EA, and associated appendices).

Due to current circumstances with COVID-19, the Corps is requesting that any questions or comments you may have be submitted in writing to Paul.M.DeMarco@usace.army.mil within 30 days of the date of this letter. Correspondence may also be sent to the letterhead address above, however due to limited staff availability at the District office, electronic submittal comments via email is preferred.

Sincerely,

Digitally signed by DUNN.ANGELA.E.1300303923
Date: 2020.05.14 16:00:33 -04'00'

Angela E. Dunn
Chief, Environmental Branch

US Army Corps of Engineers
JACKSONVILLE DISTRICT

PROPOSED FINDING OF NO SIGNIFICANT IMPACT
CONSTRUCTION OF INTRACOASTAL WATERWAY DREDGED MATERIAL MANAGEMENT AREA O-23
MARTIN COUNTY, FLORIDA

The U.S. Army Corps of Engineers, Jacksonville District (Corps), has prepared an Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended, and the White House's Council on Environmental Quality regulations to assess environmental effects of the construction of a dredged material management area (DMMA) at the O-23 site in Martin County, Florida. The Preferred Alternative consists of the following:

- Construction of a DMMA within the approximately 31-acre O-23 site to accept dredged material from maintenance of the Intracoastal Waterway (IWW) or the Okeechobee Waterway (OWW). Approximately 21 acres will be used for construction of the DMMA, of which approximately 14 acres will be used for the confined disposal facility.

In addition to the "No Action" alternative, the Corps evaluated one alternative as the Preferred Alternative. The other alternatives consisted of both different material placement methods and eight other potential upland sites for DMMA development. Ocean, open water, and beach placement methods were eliminated from detailed evaluation due to cost, potential negative environmental impacts, and practicality. Eight potential upland sites were eliminated from detailed evaluation due to inadequate containment capacity, potential negative environmental impacts, and/or technical impracticality.

I have reviewed the EA for the Preferred Alternative. This Proposed Finding incorporates by reference all discussions and conclusions contained in the EA enclosed hereto. Based on the information analyzed in the EA, which reflects pertinent information obtained from agencies having jurisdiction by law and/or special expertise, I conclude that the Preferred Alternative will not significantly affect the quality of the human environment and does not require an Environmental Impact Statement. Reasons for this conclusion are in summary:

a. The Preferred Alternative is in compliance with the Endangered Species Act of 1973, as amended. The Corps initiated coordination with the U.S. Fish and Wildlife Service (USFWS) in conjunction with providing the Draft EA. It is anticipated that the USFWS will concur with the Corps' determination that the project may affect, but is not likely

to adversely affect, Florida perforate cladonia (*Cladonia perforata*) and Eastern indigo snake (*Drymarchon corais couperi*).

b. The project requires an Environmental Resource Permit from the Florida Department of Environmental Protection (FDEP). The Corps will coordinate a Consistency Determination pursuant to the Coastal Zone Management Act through circulation of the draft EA via notice of availability. The Corps has determined that the Preferred Alternative is consistent to the maximum extent practicable with the enforceable policies of Florida's approved Coastal Management Program.
c. The Corps has coordinated the Preferred Alternative with the Florida State Historic Preservation Officer and the appropriate federally-recognized tribes in accordance with the National Historic Preservation Act and consideration given under NEPA. In a letter dated October 24, 2017, the Florida State Historic Preservation Officer determined that the project activities are unlikely to affect historic properties.
d. The Corps has determined that benefits to the public will be to maintain safe navigation through federal channels for recreational and commercial use by constructing a location to place dredged material.

All practicable means to avoid and minimize adverse environmental effects have been incorporated into the Preferred Alternative. Measures will be in place during construction to eliminate, reduce, or avoid adverse impacts below the threshold of significance to wildlife resources including the following:

- The Corps will require that the contractor hire an approved/permitted contractor to determine absence/presence of Florida perforate cladonia and gopher tortoise burrows. Florida perforate cladonia and gopher tortoises present in the upland placement site will be relocated prior to the start of construction.
- The Corps or its authorized agent will protect water quality by adherence to the State of Florida water quality criteria.
- The Corps will incorporate the standard migratory bird protection protocols into the project plans and specifications and will require the contractor to abide by those requirements.
- The Corps will incorporate the standard Eastern indigo snake protection protocols into the project plans and specifications and will require the contractor to abide by those requirements.

In view of the above and the attached EA, and after consideration of public and agency comments received on the project, I conclude that the Preferred Alternative would not result in a significant effect on the quality of the human environment. This Proposed Finding of No Significant Impact incorporates by reference all discussions and conclusions contained in the EA enclosed herewith. A copy of these documents will be made available to the public on the Corps' Environmental planning website, under Martin County:

http://www.saj.usace.army.mil/About/DivisionsOffices/Planning/EnvironmentalBranch/EnvironmentalDocuments.aspx

(On that page, click on the "+" next to "Martin County" and scroll down to "Construction of Intracoastal Waterway Dredged Material Management Area O-23." The documents

available for download include the Proposed FONSI, Draft EA, and associated appendices).

ANDREW D. KELLY, JR.
COL, EN
Commanding

Date

APPENDIX B

Coastal Zone Management Act Federal Consistency Determination

Construction of Intracoastal Waterway Dredged Material Management Area O-23
Martin County, Florida

US Army Corps of Engineers

JACKSONVILLE DISTRICT

FLORIDA COASTAL MANAGEMENT PROGRAM

FEDERAL CONSISTENCY DETERMINATION

CONSTRUCTION OF INTRACOASTAL WATERWAY DREDGED MATERIA MANAGEMENT AREA O-23

ENVIRONMENTAL ASSESSMENT

1. Chapter 161, Beach and Shore Preservation. The intent of the coastal construction permit program established by this chapter is to regulate construction projects located seaward of the line of mean high water and which might have an effect on natural shoreline processes.

Response: The proposed project is not located seaward of the mean high water line and does not include beach placement or shore construction.

2. Chapters 186 and 187, State and Regional Planning. These chapters establish the State Comprehensive Plan which sets goals that articulate a strategic vision of the State's future. Its purpose is to define in a broad sense, goals, and policies that provide decision-makers directions for the future and provide long-range guidance for an orderly social, economic and physical growth.

Response: The proposed project shall be coordinated with various Federal, State and local agencies during the planning process. The project meets the primary goal of the State Comprehensive Plan through preservation and protection of the shorefront development and infrastructure.

3. Chapter 252, Disaster Preparation, Response and Mitigation. This chapter creates a state emergency management agency, with the authority to provide for the common defense; to protect the public peace, health and safety; and to preserve the lives and property of the people of Florida.

Response: The proposed project will not impact the public peace, health and safety. Therefore, this project would be consistent with the efforts of Division of Emergency Management.

4. Chapter 253, State Lands. This chapter governs the management of submerged state lands and resources within state lands. This includes archeological and historical resources; water

resources; fish and wildlife resources; beaches and dunes; submerged grass beds and other benthic communities; swamps, marshes and other wetlands; mineral resources; unique natural features; submerged lands; spoil islands; and artificial reefs.

Response: The proposed project shall be coordinated with various Federal, State and local agencies during the planning process. All proposed work would avoid or minimize impacts to resources within submerged state lands. Appropriate protective measures shall be implemented where necessary. The proposed project would comply with the intent of this chapter.

5. Chapters 253, 259, 260, and 375, Land Acquisition. This chapter authorizes the state to acquire land to protect environmentally sensitive areas.

Response: No land acquisition is proposed in this project.

6. Chapter 258, State Parks and Aquatic Preserves. This chapter authorizes the state to manage state parks and preserves. Consistency with this statute would include consideration of projects that would directly or indirectly adversely impact park property, natural resources, park programs, management or operations.

Response: There are no state parks or preserves that occur within or along the project area.

7. Chapter 267, Historic Preservation. This chapter establishes the procedures for implementing the Florida Historic Resources Act responsibilities.

Response: No significant impacts to historical properties are expected from construction of the proposed project based upon the results of site investigations and this coordination.

8. Chapter 288, Economic Development and Tourism. This chapter directs the state to provide guidance and promotion of beneficial development through encouraging economic diversification and promoting tourism.

Response: The proposed work would not affect tourism. Therefore, the project is consistent with the goals of this chapter.

9. Chapters 334 and 339, Public Transportation. This chapter authorizes the planning and

development of a safe balanced and efficient transportation system.

Response: No public transportation systems would be impacted by the proposed project.

10. Chapter 370, Saltwater Living Resources. This chapter directs the state to preserve, manage and protect the marine, crustacean, shell and anadromous fishery resources in state waters; to protect and enhance the marine and estuarine environment; to regulate fishermen and vessels of the state engaged in the taking of such resources within or without state waters; to issue licenses for the taking and processing products of fisheries; to secure and maintain statistical records of the catch of each such species; and, to conduct scientific, economic, and other studies and research.

Response: The proposed project is expected to have no significant effect on saltwater living resources.

11. Chapter 372, Living Land and Freshwater Resources. This chapter establishes the Game and Freshwater Fish Commission and directs it to manage freshwater aquatic life and wild animal life and their habitat to perpetuate a diversity of species with densities and distributions which provide sustained ecological, recreational, scientific, educational, aesthetic, and economic benefits.

Response: The proposed project is expected to have no significant effect on freshwater aquatic life or wild animal life.

12. Chapter 373, Water Resources. This chapter provides the authority to regulate the withdrawal, diversion, storage, and consumption of water.

Response: The proposed project does not involve water resources as described by this chapter.

13. Chapter 376, Pollutant Spill Prevention and Control. This chapter regulates the transfer, storage, and transportation of pollutants and the cleanup of pollutant discharges.

Response: The contract specifications will prohibit the contractor from dumping oil, fuel, or hazardous wastes in the work area and will require that the contractor adopt safe and sanitary measures for the disposal of solid wastes. A spill prevention plan will be required.

14. Chapter 377, Oil and Gas Exploration and Production. This chapter authorizes the regulation of all phases of exploration, drilling, and production of oil, gas, and other petroleum products.

Response: The proposed project does not involve the exploration, drilling or production of gas, oil or petroleum product and therefore, this chapter does not apply.

15. Chapter 380, Environmental Land and Water Management. This chapter establishes criteria and procedures to assure that local land development decisions consider the regional impact nature of proposed large-scale development.

Response: The proposed construction footprint will be approximately 21 acres in size and is not expected to have a significant regional impact. The proposed project is consistent with the goals of this chapter.

16. Chapter 388, Arthropod Control. This chapter provides for a comprehensive approach for abatement or suppression of mosquitoes and other pest arthropods within the state.

Response: The proposed project will not further the propagation of mosquitoes or other pest arthropods.

17. Chapter 403, Environmental Control. This chapter authorizes the regulation of pollution of the air and waters of the state by the Florida Department of Environmental Regulation (now a part of the Florida Department of Environmental Protection).

Response: Environmental protection measures will be implemented to ensure that no lasting adverse effects on water quality, air quality, or other environmental resources will occur. Coordination with the Florida Department of Environmental Protection shall occur prior to construction. The proposed project complies with the intent of this chapter.

18. Chapter 582, Soil and Water Conservation. This chapter establishes policy for the conservation of the state soil and water through the Department of Agriculture. Land use policies will be evaluated in terms of their tendency to cause or contribute to soil erosion or to conserve, develop, and utilize soil and water resources both onsite or in adjoining properties affected by the project. Particular attention will be given to projects on or near agricultural lands.

Response: The proposed project is not expected to occur near or on agricultural lands; therefore,

this chapter does not apply.