

# APPENDIX A

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## Project Correspondence

**Draft Environmental Assessment  
Broward County Shore Protection Project  
Segment II Beach Renourishment  
Broward County, Florida**



U.S. Army Corps of Engineers  
JACKSONVILLE DISTRICT

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

Planning and Policy Division  
Environmental Branch

May 18, 2020

To Whom It May Concern:

Pursuant to the National Environmental Policy Act and the U.S. Army Corps of Engineers Regulation (33 CFR 230.11), this letter constitutes the Notice of Availability of the proposed Finding of No Significant Impact (FONSI) and draft Environmental Assessment (EA) for the continued periodic renourishment of the Broward County Shore Protection Project, Segment II Beach Nourishment project in Broward County, Florida.

The purpose for the project is to provide coastal storm risk management through beach nourishment of the Segment II portion of the BCSP in Broward County, Florida. The need of the project is driven by the loss of sand (erosion) along the shoreline, most recently from Hurricane Irma in September 2017. Erosion has reduced the width of the beach, thus increasing the risk for storm damages that are otherwise mitigated by the beach design. Periodic nourishment of the beach is required to replace sand along the shoreline and thus maintains the beach to its federally-authorized dimensions.

The Preferred Alternative is the continued periodic nourishment of Segment II of the BCSP and the feeder beach via truck haul from upland sand mines. The upcoming nourishment event will include placement of approximately 413,000 cubic yards (CY) of sand in the following Florida Department of Environmental Protection (FDEP) monuments:

- Reach 1: Approximately 166,000 CY of sand to be placed between R-25 and R-31 above and below mean high water (MHW), with the inclusion of a feeder beach feature between R-28 and R-31. Approximately 22,000 CY of sand to be placed between R-31 and R-36 above MHW only.
- Reach 2: Approximately 42,000 CY of sand to be placed between R-36 and R-41.3 above and below MHW.
- Reach 3: Approximately 32,000 CY of sand to be placed between R-41.3 and R-51 above MHW only.
- Reach 4: Approximately 151,000 CY of sand to be placed between R-51 and R-72 above and below MHW.

Sand sources for the project will be from upland sand mine(s) and truck hauled to the beach fill area. Potential existing sand sources include E.R. Jahna Ortona Mine (Ortona), Stewart Immokalee Mine (Immoklaee), Vulcan Witherspoon Mine

Witherspoon), and/or Cemex Davenport Mine (Cemex). This EA also evaluates the use of the upland sand mine Garcia Family Farm, LLC in Henry County (Garcia Mine).

The proposed FONSI, draft EA, and associated appendices are available for your review on the Jacksonville District's Environmental planning website, under Broward County:

<http://www.saj.usace.army.mil/About/Divisions-Offices/Planning/Environmental-Branch/Environmental-Documents/>

(On that page, click on the "+" next to "Broward". Scroll down to the project name.)

Due to current circumstances with COVID-19, the Corps is requesting that any questions or comments you may have be submitted in writing via electronic mail to [Kristen.L.Donofrio@usace.army.mil](mailto:Kristen.L.Donofrio@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 of comments via email is preferred.

Sincerely,



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Angela E. Dunn  
Chief, Environmental Branch



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

Planning and Policy Division  
Environmental Branch

May 18, 2020

David Bernhart  
Asst. Regional Administrator  
NMFS-SERO-PRD  
263 13th Ave South  
St. Petersburg, FL 33701

Dear Mr. Bernhart:

Pursuant to the National Environmental Policy Act and the U.S. Army Corps of Engineers Regulation (33 CFR 230.11), this letter constitutes the Notice of Availability of the proposed Finding of No Significant Impact (FONSI) and draft Environmental Assessment (EA) for the continued periodic renourishment of the Broward County Shore Protection Project, Segment II Beach Nourishment project in Broward County, Florida.

The purpose for the project is to provide coastal storm risk management through beach nourishment of the Segment II portion of the BCSP in Broward County, Florida. The need of the project is driven by the loss of sand (erosion) along the shoreline, most recently from Hurricane Irma in September 2017. Erosion has reduced the width of the beach, thus increasing the risk for storm damages that are otherwise mitigated by the beach design. Periodic nourishment of the beach is required to replace sand along the shoreline and thus maintains the beach to its federally-authorized dimensions.

The Preferred Alternative is the continued periodic nourishment of Segment II of the BCSP and the feeder beach via truck haul from upland sand mines. The upcoming nourishment event will include placement of approximately 413,000 cubic yards (CY) of sand in the following Florida Department of Environmental Protection (FDEP) monuments:

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- Reach 3: Approximately 32,000 CY of sand to be placed between R-41.3 and R-51 above MHW only.
- Reach 4: Approximately 151,000 CY of sand to be placed between R-51 and R-72 above and below MHW.

Sand sources for the project will be from upland sand mine(s) and truck hauled to the beach fill area. Potential existing sand sources include E.R. Jahna Ortona Mine (Ortona), Stewart Immokalee Mine (Immoklaee), Vulcan Witherspoon Mine (Witherspoon), and/or Cemex Davenport Mine (Cemex). This EA also evaluates the use of the upland sand mine Garcia Family Farm, LLC in Henry County (Garcia Mine).

To address potential effects from beach renourishment activities to federally-listed threatened and endangered species under the NMFS jurisdiction, the project adheres to the project design criteria (PDCs) as described in the NMFS' 2020 South Atlantic Regional Biological Opinion for Dredging and Material Placement Activities in the Southeast United States (SARBO). Therefore, the Corps has determined that the Preferred Alternative's potential effects to listed species and designated critical habitat under NMFS jurisdiction are covered by the SARBO. Section 4 of the draft EA includes the Corps' effect determinations and the Preferred Alternative's effects analysis.

The proposed FONSI, draft EA, and associated appendices are available for your review on the Jacksonville District's Environmental planning website, under Broward County:

<http://www.saj.usace.army.mil/About/Divisions-Offices/Planning/Environmental-Branch/Environmental-Documents/>

(On that page, click on the "+" next to "Broward". Scroll down to the project name.)

Due to current circumstances with COVID-19, the Corps is requesting that any questions or comments you may have be submitted in writing via electronic mail to [Kristen.L.Donofrio@usace.army.mil](mailto:Kristen.L.Donofrio@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 of comments via email is preferred.

Sincerely,



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Angela E. Dunn  
Chief, Environmental Branch



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

Planning and Policy Division  
Environmental Branch

May 18, 2020

Virginia Fay  
Asst. Regional Administrator  
NMFS-SERO-HCD  
263 13<sup>th</sup> Ave South  
St. Petersburg, FL 33701

Dear Ms. Fay:

Pursuant to the National Environmental Policy Act of 1969, as amended, (NEPA) and the U.S. Army Corps of Engineers Regulation (33 C.F.R. 230.11), this letter constitutes the U.S. Army Corps of Engineers, Jacksonville District (Corps) Notice of Availability of the proposed Finding of No Significant Impact (FONSI) and draft Environmental Assessment (EA) for the for the continued periodic nourishment of the Broward County Shore Protection Project (BCSPP), Segment II Beach Nourishment in Broward County, Florida. This letter also serves to convey the Essential Fish Habitat (EFH) Assessment, which is incorporated in the project's draft EA.

The Corps is initiating coordination with NMFS under the EFH provisions of the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA). Per the September 3, 2019 and October 2, 2019 EFH Findings between NMFS' Southeast Regional Office and South Atlantic Division, U.S. Army Corps of Engineers and Jacksonville District, respectively, the EFH Assessment for the project is integrated within the draft EA. Per the 2019 Findings, the February 2004 "Preparing Essential Fish Habitat Assessments: A Guide for Federal Action Agencies" document, and 50 C.F.R. 600.920(e)(3), an EFH Assessment must include specific items. Each item is addressed in the table below with a reference to where the information is located in the draft EA:

<b>EFH Required Item</b>	<b>Draft EA Location(s)</b>
Description of the Proposed Action	<p>What is the action?</p> <ul style="list-style-type: none"> <li>- <i>Section 1.1 Project Description</i></li> <li>- <i>Section 2.2 Alternative 1 (Preferred Alternative)</i></li> </ul> <p>What is the purpose of the action?</p> <ul style="list-style-type: none"> <li>- <i>Section 1.3 Project Need or Opportunity</i></li> </ul> <p>How, when and where will it be undertaken?</p> <ul style="list-style-type: none"> <li>- <i>Section 1.1 Project Description</i></li> <li>- <i>Section 2.2 Alternative 1 (Preferred Alternative)</i></li> </ul> <p>What will be the result of the action?</p> <ul style="list-style-type: none"> <li>- <i>Section 4 Environmental Effects</i></li> </ul>
Analysis of the potential adverse effects (individual and cumulative) of the action on EFH and the management species	<p>What EFH will be affected by the action?</p> <ul style="list-style-type: none"> <li>- <i>Section 3.1.2 Essential Fish Habitat</i></li> </ul> <p>What are the adverse effects to EFH that could occur as a result of this action?/ How would they impact managed species?/ What would be the magnitude of effects?/What would the duration be?</p> <ul style="list-style-type: none"> <li>- <i>Section 4 Environmental Effects, specifically Section 4.4 EFH</i></li> </ul>
Proposed Compensatory Mitigation	- <i>None required</i>
Avoidance and Minimization	- <i>Section 6 Environmental Commitments and Compliance</i>

Additionally, the guidance states that for projects that may have substantial impacts on EFH, additional information may be necessary. The following additional items are considered and addressed throughout the draft EA:

<b>EFH Additional Information Item</b>	<b>Draft EA Location(s)</b>
Results of on-site studies to evaluate the habitat and/or site-specific effects of the project	- <i>Appendix E: Other Reports and Related Documents</i>
Review of pertinent literature and related information	- <i>Literature cited throughout draft EA</i>

The Corps has determined that the effects of the continued periodic nourishment of the BCSPP, Segment II Beach Nourishment in Broward County, Florida would have minimal adverse effects on EFH and no adverse effects on federally managed fish species. The magnitude of the impacts are minor and insignificant. Details on the Preferred Alternative and the EFH assessment can be found in the project's draft EA, which is available for your review on the Jacksonville District's Environmental planning website, under Broward County:

<http://www.saj.usace.army.mil/About/Divisions-Offices/Planning/Environmental-Branch/Environmental-Documents/>

(On that page, click on the "+" next to "Broward". Scroll down to the project name.)

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Sincerely,



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Angela E. Dunn  
Chief, Environmental Branch



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

Planning and Policy Division  
Environmental Branch

May 18, 2020

Ms. Roxanna Hinzman  
Field Supervisor  
South Florida Field Office  
U.S. Fish and Wildlife Service  
1339 20<sup>th</sup> Street  
Vero Beach, Florida 32960

Dear Ms. Hinzman:

Pursuant to the National Environmental Policy Act of 1969, as amended, (NEPA) and the U.S. Army Corps of Engineers Regulation (33 CFR 230.11), this letter constitutes the Corps' Notice of Availability of the Proposed Finding of No Significant Impact (FONSI) and Draft Environmental Assessment (EA) for the continued periodic renourishment of the Broward County Shore Protection Project (BCSPP), Segment II Beach Renourishment in Broward County, Florida. In order to comply with Section 7 of the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*), the U.S. Army Corps of Engineers, Jacksonville District (Corps), respectfully requests a letter of concurrence from the U.S. Fish and Wildlife Service (USFWS) on the Corps' may affect, not likely to adversely affect (MANLAA) effect determinations for the project.

The purpose for the project is to provide coastal storm risk management through beach nourishment of the Segment II portion of the BCSPP in Broward County, Florida. The need of the project is driven by the loss of sand (erosion) along the shoreline, most recently from Hurricane Irma in September 2017. Erosion has reduced the width of the beach, thus increasing the risk for storm damages that are otherwise mitigated by the beach design. Periodic nourishment of the beach is required to replace sand along the shoreline and thus maintains the beach to its federally-authorized dimensions.

The Preferred Alternative is the continued periodic nourishment of Segment II of the BCSPP and the feeder beach via truck haul from upland sand mines. The upcoming nourishment event will include placement of approximately 413,000 cubic yards (CY) of sand in the following Florida Department of Environmental Protection (FDEP) monuments: Reach 1: Approximately 166,000 CY of sand to be placed between R-25 and R-31 above and below mean high water (MHW), with the inclusion of a feeder each feature between R-28 and R-31. Approximately 22,000 CY of sand to be placed between R-31 and R-36 above MHW only. Reach 2: Approximately 42,000 CY of sand to be placed between R-36 and R-41.3 above and below MHW.

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Sand sources for the project will be from upland sand mine(s) and truck hauled to the beach fill area. Potential existing sand sources include E.R. Jahna Ortona Mine (Ortona), Stewart Immokalee Mine (Immoklaee), Vulcan Witherspoon Mine (Witherspoon), and/or Cemex Davenport Mine (Cemex). The 2020 EA also evaluates the use of the upland sand mine Garcia Family Farm, LLC in Henry County (Garcia Mine).

Listed species and/or designated critical habitat (DCH) which may occur in the vicinity of the proposed work and are under the jurisdiction of the USFWS include:

Common Name	Scientific Name	Listing Status	Corps' Effect Determination
Green sea turtle <i>North Atlantic Distinct Population Segment (DPS)</i>	<i>Chelonia mydas</i>	Threatened	MANLAA*
Hawksbill sea turtle	<i>Eretmochelys imbricata</i>	Endangered	MANLAA*
Leatherback sea turtle	<i>Dermochelys coriacea</i>	Endangered	MANLAA*
Loggerhead sea turtle <i>Northwest Atlantic DPS</i>	<i>Caretta caretta</i>	Threatened/Critical Habitat	MANLAA*
Kemp's ridley sea turtle	<i>Lepidochelys kempii</i>	Endangered	MANLAA*
American crocodile	<i>Crocodylus acutus</i>	Threatened	MANLAA*
Piping plover	<i>Charadrius melodus</i>	Threatened	MANLAA*
Florida manatee	<i>Trichechus manatus latirostris</i>	Threatened	MANLAA*
Beach jacquemontia	<i>Jacquemontia reclinata</i>	Endangered	No Effect

\*MANLAA = May affect, not likely to adversely affect

The Corps determined that the project and its effects are consistent with those analyzed in the Statewide Programmatic Biological Opinion (SPBO) and Piping Plover Programmatic Biological Opinion (P3BO). The Corps will abide by all applicable minimization measures, Reasonable and Prudent Measures (RPMs), and Terms and Conditions (T&Cs) in the SPBO and P3BO to ensure the protection of nesting sea turtles and piping plover. The Corps requests concurrence from the USFWS on the Corps' MANLAA determinations for the American crocodile and Florida manatee. Included with this letter is additional information describing the project background, project location and proposed action, potential effects American crocodiles, Florida manatees, and beach jacquemontia, and efforts to eliminate/avoid effects to listed

species. Additional details on the Preferred Alternative can be found in the draft EA, which is available for your review on the Jacksonville District's Environmental planning website, under Broward County:

<http://www.saj.usace.army.mil/About/Divisions-Offices/Planning/Environmental-Branch/Environmental-Documents/>

(On that page, click on the "+" next to "Broward". Scroll down to the project name.)

In addition to notifying USFWS of the draft documents and requesting concurrence with the MANLAA effect determinations, the Corps respectfully requests that the USFWS sign the enclosed memorandum for the record (MFR). The MFR documents an informal understanding between the two agencies to utilize the project's NEPA review process to complete coordination responsibilities under the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq., March 10, 1934, as amended 1946, 1958, 1978, and 1995). This agreement will avoid duplicate analysis and documentation as authorized under 40 CFR section 1500.4 (k), 1502.25, 1506.4.

Due to current circumstances with COVID-19, the Corps is requesting that any questions or comments you may have be submitted in writing via electronic mail to [Kristen.L.Donofrio@usace.army.mil](mailto:Kristen.L.Donofrio@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 of comments via email is preferred.

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Angela E. Dunn  
Chief, Environmental Branch

Encl

**Florida Coastal Zone Management Program Evaluation Procedures  
Federal Consistency Determination (FCD)**

**Broward County Shore Protection Project (BCSPP),  
Segment II Beach Renourishment in  
Broward County, Florida**

**May 2020**

**Enforceable Policy.** Florida Statutes considers “enforceable policy” under the Coastal Zone Management Act ([www.dep.state.fl.us/cmp/federal/24\\_statutes.htm](http://www.dep.state.fl.us/cmp/federal/24_statutes.htm) ).

**Applicability of the Coastal Zone Management Act.** The following table summarizes the process and procedures under the Coastal Zone Management Act for federal actions and for non-federal applicants\*.

<b>Item</b>	<b>Non-federal Applicant (15 CFR 930, subpart D)</b>	<b>Federal Action (15 CFR 930, subpart C)</b>
Enforceable Policies	Reviewed and approved by NOAA (in FL <a href="http://www.dep.state.fl.us/cmp/federal/24_statutes.htm">www.dep.state.fl.us/cmp/federal/24_statutes.htm</a> )	Same
Effects Test	Direct, Indirect (cumulative, secondary), adverse or beneficial	Same
Review Time	6 months from state receipt of Consistency Certification (30-days for completeness notice) Can be altered by written agreement between state and applicant	60 Days, extendable (or contractible) by mutual agreement
Consistency	Must be Fully Consistent	To Maximum Extent Practicable**
Procedure Initiation	Applicant provides Consistency Certification to state	Federal Agency provides “Consistency Statement” to state
Appealable	Yes, applicant can appeal to Secretary (NOAA)	No (NOAA can “mediate”)
Activities	Listed activities with their geographic location (State can request additional listing within 30 days)	Listed or Unlisted Activities in State Program
Activities in Another State	Must have approval for interstate reviews from NOAA	Interstate review approval NOT required
Activities in Federal Waters	Yes, if activity affects state waters	Same

\* There are separate requirements for activities on the Outer Continental Shelf (subpart E) and for “assistance to an applicant agency” (subpart F).

\*\* Must be fully consistent except for items prohibited by applicable law (generally does not count lack of funding as prohibited by law, 15 CFR 930.32).

## Coastal Zone Consistency Statement by Statute/Enforceable Policy

### 1. CHAPTER 161, F.S., BEACH AND SHORE PRESERVATION.

*Coastal areas are among the state's most valuable natural, aesthetic, and economic resources. The state is required to protect coastal areas from imprudent activities that could jeopardize the stability of the beach-dune system, accelerate erosion, provide inadequate protection to upland structures, endanger adjacent properties, or interfere with public beach access. Coastal areas used, or likely to be used, by sea turtles are designated for nesting, and the removal of vegetative cover that binds sand is prohibited. This statute provides policy for the regulation of construction, reconstruction, and other physical activities related to the beaches and shores of the state. Additionally, this statute requires the restoration and maintenance of critically eroding beaches.*

RESPONSE: The purpose for the project is to provide coastal storm risk management through beach renourishment of the Segment II portion of the Broward County Shore Protection Project (BCSPP) in Broward County, Florida. The need of the project is driven by the loss of sand (erosion) along the shoreline, most recently from Hurricane Irma in September 2017. Erosion has reduced the width of the beach, thus increasing the risk for storm damages that are otherwise mitigated by the beach design. Periodic renourishment of the beach is required to replace sand along the shoreline and thus maintains the beach to its federally-authorized dimensions.

The Preferred Alternative consists of the truck haul and placement of sand on Segment II of the BCSPP. The upcoming renourishment event will include placement of approximately 413,000 cubic yard (CY) of sand<sup>1</sup> along the following Florida Department of Environmental Protection (FDEP) monuments:

- Reach 1: Approximately 166,000 CY of sand to be placed between R-25 and R-31 above and below mean high water (MHW), with the inclusion of a feeder beach feature between R-28 and R-31. Approximately 22,000 CY of sand to be placed between R-31 and R-36 above MHW only.
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- Reach 3: Approximately 32,000 CY of sand to be placed between R-41.3 and R-51 above MHW only.
- Reach 4: Approximately 151,000 CY of sand to be placed between R-51 and R-72 above and below MHW.

Sand placement generally located between R-25 and R-27 establishes a fill template and the ability to protect the vulnerable upland infrastructure in this area when needed, rather than being subject to the Hillsboro Inlet bypassing project's inconsistent, and recently reduced, fill schedule. The feeder beach, generally located between R-28 and R-31,

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<sup>1</sup> The actual quantity of volume placed may vary based on changes in the existing conditions; the volumes provided are based on existing conditions and need identified through the November 2019 beach profile survey.

introduces sand into the coastal system to provide a slow sustained transport to the south that may extend the time required until the next renourishment. The remaining fill, generally located between R-31 and R-36 and between R-41.3 and R-51, will be placed above MHW only and provides sand to portions of the beach where the berm is deflated to provide adequate upland protection and reduce ponding along the landward side of the berm. All proposed fill templates are located within the historical envelope of beach changes.

Renourishment of Segment II of the BCSP would occur on a periodic cycle or as-needed basis using any combination of existing sand sources (Ortona Mine, Immokalee Mine, Witherspoon Mine, and/or Cemex Mine) and/or Garcia upland sand mine. The proposed project is consistent with the goals of this chapter.

## **2. CHAPTER 163, PART II, F.S., INTERGOVERNMENTAL PROGRAMS: GROWTH POLICY; COUNTY AND MUNICIPAL PLANNING: LAND DEVELOPMENT REGULATION**

*The purpose of this statute is to provide for the implementation of comprehensive planning programs to guide and control future development in the state. The comprehensive planning process encourages units of local government to preserve, promote, protect, and improve the public health, safety, comfort, good order, appearance, convenience, law enforcement and fire prevention, and general welfare; prevent the overcrowding of land and avoid undue concentration of population; facilitate the adequate and efficient provision of public facilities and services; and conserve, develop, utilize, and protect natural resources within their jurisdictions.*

RESPONSE: Pursuant to the National Environmental Protection Act (NEPA), the proposed project will be coordinated with federal, state, federally-recognized Native American tribes, local agencies, and other interested parties. The proposed project meets the goals of the State Comprehensive Plan by mitigating coastal storm damages to infrastructure along or near Segment II of the BCSP through beach renourishment. The proposed project is consistent with the goals of this chapter.

## **3. CHAPTER 186, F.S., STATE AND REGIONAL PLANNING**

*The state comprehensive plan provides basic policy direction to all levels of government regarding the orderly social, economic, and physical growth of the state. The goals, objectives, and policies of the state comprehensive plan are statewide in scope and are consistent and compatible with each other. The statute provides direction for the delivery of governmental services, a means for defining and achieving the specific goals of the state, and a method for evaluating the accomplishment of those goals.*

RESPONSE: Pursuant to NEPA, the proposed project will be coordinated with federal, state, federally-recognized Native American tribes, local agencies, and other interested parties. The proposed project meets the goals of the State Comprehensive Plan by mitigating coastal storm damages to infrastructure along or near Segment II of the BCSP through beach renourishment. The proposed project is consistent with the goals of this chapter.

#### **4. CHAPTER 252, F.S., EMERGENCY MANAGEMENT**

*The state of Florida is vulnerable to a wide range of emergencies, including natural, technological, and manmade disasters. This vulnerability is exacerbated by the tremendous growth in the state's population. This statute directs the state to reduce the vulnerability of its people and property to natural and manmade disasters; prepare for, respond to and reduce the impacts of disasters; and decrease the time and resources needed to recover from disasters.*

*Disaster mitigation is necessary to ensure the common defense of Floridians' lives and to protect the public peace, health, and safety. The policies provide the means to assist in the prevention or mitigation of emergencies that may be caused or aggravated by the inadequate planning or regulation. State agencies are directed to keep land uses and facility construction under continuing study and identify areas that are particularly susceptible to natural or manmade catastrophic occurrences.*

RESPONSE: The purpose for the project is to provide coastal storm risk management through beach renourishment of the Segment II portion of the BCSP in Broward County, Florida. The need of the project is driven by the loss of sand (erosion) along the shoreline, most recently from Hurricane Irma in September 2017. Erosion has reduced the width of the beach, thus increasing the risk for storm damages that are otherwise mitigated by the beach design. Periodic renourishment of the beach is required to replace sand along the shoreline and thus maintains the beach to its federally-authorized dimensions. The proposed project is consistent with the goals of this chapter.

#### **5. CHAPTER 253, F.S., STATE LANDS**

*The Board of Trustees of the Internal Improvement Trust Fund (Trustees) is vested and charged with the acquisition, administration, management, control, supervision, conservation, protection, and disposition of all lands owned by the state. Lands acquired for preservation, conservation and recreation serve the public interest by contributing to the public health, welfare and economy. In carrying out the requirements of this statute, the Trustees are directed to take necessary action to fully: conserve and protect state lands; maintain natural conditions; protect and enhance natural areas and ecosystems; prevent damage and depredation; and preserve archaeological and historical resources.*

*All submerged lands are considered single-use lands to be maintained in natural condition for the propagation of fish and wildlife and public recreation. Where multiple-uses are permitted, ecosystem integrity, recreational benefits and wildlife values are conserved and protected.*

RESPONSE: The Preferred Alternative consists of the continued periodic renourishment of Segment II of the BCSP and construction of the Reach 1 shore protection and feeder beach feature via truck haul of sand from upland mines. Portions of the project will occur on submerged lands of the State of Florida. The Corps will coordinate the project with the State of Florida through the issuance of a water quality certification (WQC), Federal Consistency Determination (FCD) review, and the review process of the 2020 draft Environmental Assessment (EA).

Environmental protection measures, as described in detail in Section 6 of the 2020 EA, will be implemented to minimize adverse effects to the maximum extent practicable to fish and other wildlife resources, threatened and endangered (T&E) species, water quality, air quality, or other environmental resources. Consultation on the Preferred Alternative has been initiated with the Florida State Historic Preservation Office (SHPO) and appropriate federally-recognized tribes for compliance with Section 106 of the National Historic Preservation Act. Consultation is ongoing and will be completed prior to the start of construction.

Pursuant to NEPA, the proposed project will be coordinated with federal, state, federally-recognized Native American tribes, local agencies, and other interested parties. The proposed project is consistent with the goals of this chapter.

## **6. CHAPTER 258, F.S., STATE PARKS AND PRESERVES**

*The statute addresses the state's administration of state parks, aquatic preserves, and recreation areas, which are acquired to emblemize the state's natural values and to ensure that these values are conserved for all time. Parks and preserves are managed for the non-depleting use, enjoyment, and benefit of Floridians and visitors and to contribute to the state's tourist appeal.*

*Aquatic Preserves are recognized as having exceptional biological, aesthetic, and scientific value and are set aside for the benefit of future generations. Disruptive physical activities and polluting discharges are highly restricted in aquatic preserves. State managed wild and scenic rivers possess exceptionally remarkable and unique ecological, fish and wildlife, and recreational values. These rivers are also designated for permanent preservation and enhancement for both the present and future.*

RESPONSE: Renourishment of Segment II of the BCSP will maintain opportunities for recreational use of the beach and habitat for nesting sea turtles and other wildlife. The proposed project complies with the goals of this chapter.

## **7. CHAPTER 259, F.S., LAND ACQUISITION FOR CONSERVATION OR RECREATION**

*The statute addresses public ownership of natural areas for purposes of maintaining the state's unique natural resources; protecting air, land, and water quality; promoting water resource development to meet the needs of natural systems and citizens of this state; promoting restoration activities on public lands; and providing lands for natural resource based recreation. Lands are managed to protect or restore their natural resource values, and provide the greatest benefit, including public access, to the citizens of this state.*

RESPONSE: Pursuant to NEPA, the proposed project will be coordinated with federal, state, federally-recognized Native American tribes, local agencies, and other interested parties. Environmental protection measures, as described in detail in Section 6 of the 2020 EA, will be implemented to minimize adverse effects to the maximum extent

practicable to fish and other wildlife resources, T&E species, water quality, air quality, or other environmental resources. Renourishment of Segment II of the BCSP will maintain opportunities for recreational use of the beach and habitat for nesting sea turtles and other wildlife. Portions of the project will occur on submerged lands of the State of Florida. The Corps will coordinate the project with the State of Florida through the issuance of a WQC, FCD review, and the review process of 2020 draft EA. The proposed project complies with the goals of this chapter.

#### **8. CHAPTER 260, F.S., FLORIDA GREENWAYS AND TRAILS ACT**

*A statewide system of greenways and trails is established in order to conserve, develop, and use the natural resources of Florida for healthful and recreational purposes. These greenways and trails provide open space benefiting environmentally sensitive lands and wildlife and provide people with access to healthful outdoor activities. The greenways and trails serve to implement the concepts of ecosystem management while providing recreational opportunities such as horseback riding, hiking, bicycling, canoeing, jogging, and historical and archaeological interpretation. As of August 29<sup>th</sup>, 2016, Chapter 260, F.S., does not contain any enforceable policies for federal consistency purposes.*

RESPONSE: No Florida greenways or trails exist in the project area or will be affected by the project.

#### **9. CHAPTER 267, F.S., HISTORICAL RESOURCES**

*The management and preservation of the state's archaeological and historical resources are addressed by this statute. This statute recognizes the state's rich and unique heritage of historic resources and directs the state to locate, acquire, protect, preserve, operate and interpret historic and archeological resources for the benefit of current and future generations of Floridians.*

*Objects or artifacts with intrinsic historic or archeological value located on, or abandoned on, state-owned lands or state-owned submerged lands belong to the citizens of the state. The state historic preservation program operates in conjunction with the National Historic Preservation Act of 1966 to require state and federal agencies to consider the effect of their direct or indirect actions on historic and archeological resources. These resources cannot be destroyed or altered unless no prudent alternative exists. Unavoidable impacts must be mitigated.*

RESPONSE: Consultation on the Preferred Alternative has been initiated with the SHPO and appropriate federally-recognized tribes for compliance with Section 106 of the National Historic Preservation Act. Consultation will be completed prior to the start of construction. The proposed project is consistent with the goals of this chapter.

#### **10. CHAPTER 288, F.S., COMMERCIAL DEVELOPMENT AND CAPITAL IMPROVEMENTS**

*The framework to promote and develop general business, trade, and tourism components of the state economy are established in this statute. The statute includes requirements to protect and promote the natural, coastal, historical, and cultural tourism*

*assets of the state; foster the development of nature-based tourism and recreation; and upgrade the image of Florida as a quality destination. Natural resource-based tourism and recreational activities are critical sectors of Florida's economy. The needs of the environment must be balanced with the need for growth and economic development.*

RESPONSE: Renourishment of Segment II of the BCSP will ensure the continuation of benefits to socioeconomic resources (e.g. recreation, tourism, etc.). Environmental protection measures, as described in detail in Section 6 of the 2020 EA, will be implemented to minimize adverse effects to the maximum extent practicable to fish and other wildlife resources, T&E species, water quality, air quality, or other environmental resources. The proposed project is consistent with the goals of this chapter.

### **11. CHAPTER 334, F.S., TRANSPORTATION ADMINISTRATION**

*The statute addresses the state's policy concerning transportation administration. It establishes the responsibilities of the state, the counties, and the municipalities in the planning and development of the transportation systems; and the development of an integrated, balanced statewide transportation system. This is necessary for the protection of public safety and general welfare and for the preservation of all transportation facilities in the state. As of October 9<sup>th</sup>, 2017, Chapter 334, F.S., does not contain any enforceable policies for federal consistency purposes.*

RESPONSE: Public transportation systems will not be affected by the proposed project.

### **12. CHAPTER 339, F.S., TRANSPORTATION FINANCE AND PLANNING**

*The statute addresses the finance and planning needs of the state's transportation system.*

RESPONSE: Public transportation systems will not be affected by the proposed project.

### **13. CHAPTER 373, F.S., WATER RESOURCES**

*The waters in the state of Florida are managed and protected to conserve and preserve water resources, water quality, and environmental quality. This statute addresses sustainable water management; the conservation of surface and ground waters for full beneficial use; the preservation of natural resources, fish, and wildlife; protecting public land; and promoting the health and general welfare of Floridians. The state manages and conserves water and related natural resources by determining whether activities will unreasonably consume water; degrade water quality; or adversely affect environmental values such as protected species habitat, recreational pursuits, and marine productivity.*

*Specifically, under Part IV of Chapter 373, the Department of Environmental Protection, water management districts, and delegated local governments review and take agency action on wetland resource, environmental resource, and stormwater permit applications. These permits address the construction, alteration, operation, maintenance, abandonment, and removal of any stormwater management system, dam, impoundment,*

*reservoir, or appurtenant work or works (including dredging, filling and construction activities in, on, and over wetlands and other surface waters).*

RESPONSE: Pursuant to NEPA, the proposed project will be coordinated with federal, state, federally-recognized Native American tribes, local agencies, and other interested parties. Environmental protection measures, as described in detail in Section 6 of the 2020 EA, will be implemented to minimize adverse effects to the maximum extent practicable to water resources. The Corps will coordinate the project with the State of Florida through the issuance of a WQC, FCD review, and the review process of 2020 draft EA. The proposed project complies with the goals of this chapter.

#### **14. CHAPTER 375, F.S., OUTDOOR RECREATION AND CONSERVATION LANDS**

*The statute addresses the development of a comprehensive outdoor recreation plan. The purpose of the plan is to document recreational supply and demand, describe current recreational opportunities, estimate the need for additional recreational opportunities, and propose the means to meet the identified needs.*

RESPONSE: Beach renourishment would maintain opportunities for recreational use of the beach. The proposed project complies with the goals of this chapter.

#### **15. CHAPTER 376, F.S., POLLUTANT DISCHARGE PREVENTION AND REMOVAL**

*regulating the transfer, storage, and transportation of pollutants, and the cleanup of pollutant discharges is essential for maintaining coastal resources (specifically the coastal waters, estuaries, tidal flats, beaches, and public lands adjoining the seacoast) in as close to a pristine condition as possible. The preservation of the seacoast as a source of public and private recreation, along with the preservation of water and certain lands are matters of the highest urgency and priority.*

*This statute provides a framework for the protection of the state's coastline from spills, discharges, and releases of pollutants. The discharge of pollutants into or upon any coastal waters, estuaries, tidal flats, beaches, and lands adjoining the seacoast of the state is prohibited. The statute provides for hazards and threats of danger and damages resulting from any pollutant discharge to be evaluated; requires the prompt containment and removal of pollution; provides penalties for violations; and ensures the prompt payment of reasonable damages from a discharge.*

*Portions of Chapter 376, F.S., serve as a complement to the national contingency plan portions of the federal Water Pollution Control Act.*

RESPONSE: The proposed project does not involve the transportation or discharge of pollutants. The contract specifications will prohibit the contractor from dumping oil, fuel, or hazardous wastes in the work area and will include conditions on how to handle inadvertent spills of pollutants, such as vehicle fuels. A spill prevention plan will be required of the contractor. The proposed project is consistent with the goals of this chapter.

## **16. CHAPTER 377, F.S., ENERGY RESOURCES**

*The statute addresses the regulation, planning, and development of the energy resources of the state. The statute provides policy to conserve and control the oil and gas resources in the state, including products made therefrom and to safeguard the health, property and welfare of Floridians. The Department of Environmental Protection (DEP) is authorized to regulate all phases of exploration, drilling, and production of oil, gas, and other petroleum products in the state.*

*The statute describes the permitting requirements and criteria necessary to drill and develop for oil and gas. DEP rules ensure that all precautions are taken to prevent the spillage of oil or any other pollutant in all phases of extraction and transportation. The state explicitly prohibits pollution resulting from drilling and production activities. No person drilling for or producing oil, gas, or other petroleum products may pollute land or water; damage aquatic or marine life, wildlife, birds, or public or private property; or allow any extraneous matter to enter or damage any mineral or freshwater-bearing formation.*

*Penalties for violations of any provisions of this chapter are detailed.*

RESPONSE: The proposed project does not involve the development of energy resources.

## **17. CHAPTER 379, F.S., FISH AND WILDLIFE CONSERVATION**

*The framework for the management and protection of the state of Florida's wide diversity of fish and wildlife resources are established in this statute. It is the policy of the state to conserve and wisely manage these resources. Particular attention is given to those species defined as being endangered or threatened. This includes the acquisition or management of lands important to the conservation of fish and wildlife.*

*This statute contains specific provisions for the conservation and management of marine fisheries resources. These conservation and management measures permit reasonable means and quantities of annual harvest (consistent with maximum practicable sustainable stock abundance) as well as ensure the proper quality control of marine resources that enter commerce.*

*Additionally, this statute supports and promotes hunting, fishing and the taking of game opportunities in the State. Hunting, fishing, and the taking of game are considered an important part in the state's economy and in the conservation, preservation, and management of the state's natural areas and resources.*

RESPONSE: Pursuant to Section 7 of the Endangered Species Act, the Corps coordinated with the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) for beach renourishment activities. Detailed analysis of the Corps' effect determinations are in Section 4 of the 2020 EA, and details of the consultations with USFWS and NMFS are included in Section 6. A summary of the effect determinations are as follows:

Effect determinations for species under NMFS jurisdiction:

May Affect, Not Likely to Adversely Affect (MANLAA):

Swimming sea turtles (green sea turtle, hawksbill sea turtle, leatherback sea turtle, loggerhead sea turtle, Kemp's ridley sea turtle), smalltooth sawfish, Nassau grouper, giant manta ray, and corals (pillar coral, rough cactus coral, lobed star coral, mountainous star coral, boulder star coral, elkhorn coral, staghorn coral)

Effect determinations for species under USFWS jurisdiction:

MANLAA:

Nesting sea turtles (green sea turtle, hawksbill sea turtle, leatherback sea turtle, loggerhead sea turtle, Kemp's ridley sea turtle), American crocodile, Florida manatee, piping plover

No Effect:

Beach jacquemontia

To address potential effects from beach renourishment activities to federally-listed T&E species under the NMFS jurisdiction, the project adheres to the PDCs as described in the NMFS' SARBO dated March 27, 2020. The Preferred Alternative's potential effects to listed species and their Designated Critical Habitat (DCH) under NMFS jurisdiction are covered by the 2020 South Atlantic Regional Biological Opinion for Dredging and Material Placement Activities in the Southeast United States (SARBO). The project adheres to the SARBO's project design criteria (PDCs). The project will comply with all terms and conditions of the SARBO. Additionally, NMFS' sea turtle and smalltooth sawfish construction conditions would be implemented.

For potential effects to federally-listed T&E species under the USFWS jurisdiction, the Corps requested concurrence from the USFWS on the Corps' may affect, but not likely to adversely affect (MANLAA) determinations. The Preferred Alternative's beach placement activities and potential effects to nesting sea turtles and piping plover are covered by the Statewide Programmatic Biological Opinion (SPBO) and the Piping Plover Programmatic Biological Opinion (P3BO), respectively. The project will comply with all applicable minimization measures, Reasonable and Prudent Measures, and T&Cs of the SPBO and P3BO. Additionally, the USFWS' 2011 Standard Manatee Conditions for In-Water Work would be implemented. Consultation with USFWS for potential effects to American crocodiles and Florida manatees is ongoing through review of the draft EA. The USFWS' final determination will be noted in the final NEPA document.

Pursuant to NEPA, the proposed project will be coordinated with federal, state, federally-recognized Native American tribes, local agencies, and other interested parties. Environmental protection measures, as described in detail in Section 6 of the 2020 EA, will be implemented to minimize adverse effects to the maximum extent practicable to T&E species as well as fish and other wildlife resources. The project is consistent with the goals of this chapter.

## **18. CHAPTER 380, F.S., LAND AND WATER MANAGEMENT**

*Land and water management policies are established to protect natural resources and the environment; and to guide and coordinate local decisions relating to growth and development. The statute provides that state land and water management policies be implemented by local governments through existing processes for the guidance of growth and development. The statute also provides that all the existing rights of private property be preserved in accord with constitutions of this state and of the United States.*

*The chapter establishes the Areas of Critical State Concern designation, the Florida Communities Trust as well as the Florida Coastal Management Act. The Florida Coastal Management Act provides the basis for the Florida Coastal Management Program which seeks to protect the natural, commercial, recreational, ecological, industrial, and aesthetic resources of Florida's coast.*

RESPONSE: The purpose for the project is to provide coastal storm risk management to Segment II of the BCSP through beach renourishment. Renourishment of Segment II of BCSP will ensure the continuation of benefits to socioeconomic resources (e.g. recreation, tourism, etc.). Pursuant to NEPA, the proposed project will be coordinated with federal, state, federally-recognized Native American tribes, local agencies, and other interested parties. The project is consistent with the goals of this chapter.

## **19. CHAPTER 381, F.S., PUBLIC HEALTH: GENERAL PROVISIONS**

*The statute establishes public policy concerning the state's public health system, which is designated to promote, protect, and improve the health of all people in the state.*

RESPONSE: The state's public health system will not be affected by the proposed project.

## **20. CHAPTER 388, F.S., MOSQUITO CONTROL**

*Mosquito control efforts of the state are to achieve and maintain such levels of arthropod control as will protect human health and safety; promote the economic development of the state; and facilitate the enjoyment of its natural attractions by reducing the number of pestiferous and disease-carrying arthropods.*

*It is the policy of the state to conduct arthropod control in a manner consistent with protection of the environmental and ecological integrity of all lands and waters throughout the state.*

RESPONSE: The proposed project will not further the propagation of mosquitoes or other pest arthropods. The proposed project is consistent with the goals of this chapter.

## **21. CHAPTER 403, F.S., ENVIRONMENTAL CONTROL**

*Environmental control policies conserve state waters; protect and improve water quality; and maintain air quality. This statute provides wide-ranging authority to address various environmental control concerns, including air and water pollution; electrical power plant and transmission line siting; the Interstate Environmental Control Compact;*

*resource recovery and management; solid and hazardous waste management; drinking water protection; pollution prevention; ecosystem management; and natural gas transmission pipeline siting.*

RESPONSE: Pursuant to NEPA, the proposed project will be coordinated with federal, state, federally-recognized Native American tribes, local agencies, and other interested parties. Environmental protection measures, as described in detail in Section 6 of the 2020 EA, will be implemented to minimize adverse effects to the maximum extent practicable to fish and other wildlife resources, T&E species, water quality, air quality, or other environmental resources. The proposed project complies with the goals of this chapter.

## **22. CHAPTER 553, F.S., BUILDING AND CONSTRUCTION STANDARDS**

*The statute addresses building construction standards and provides for a unified Florida Building Code.*

RESPONSE: The proposed project does not include building construction.

## **23. CHAPTER 582, F.S., SOIL AND WATER CONSERVATION**

*It is the state's policy to preserve natural resources; control and prevent soil erosion, prevent floodwater and sediment damages; and to further the conservation, development and use of soil and water resources.*

*Farm, forest, and grazing lands are among the basic assets of the state; and the preservation of these lands is necessary to protect and promote the health, safety, and general welfare of its people.*

*These measures help to preserve state and private lands, control floods, maintain water quality, prevent impairment of dams and reservoirs, assist in maintaining the navigability of rivers and harbors, preserve wildlife and protect wildlife habitat, protect the tax base, protect public lands, and protect and promote the health, safety, and general welfare of the people of this state.*

RESPONSE: The project is not located on or near agricultural lands. The proposed project will include appropriate erosion control plans and measures where applicable. The proposed project is consistent with the goals of this chapter.

## **24. CHAPTER 597, F.S., AQUACULTURE**

*The statute establishes public policy concerning the cultivation of aquatic organisms in the state. The intent is to enhance the growth of aquaculture, while protecting Florida's environment. This includes a requirement for a state aquaculture plan which provides for: the coordination and prioritization of state aquaculture efforts; the conservation and enhancement of aquatic resources; and mechanisms for increasing aquaculture production.*

RESPONSE: The proposed project does not include aquaculture.

## STANDARD MANATEE CONDITIONS FOR IN-WATER WORK

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The permittee shall comply with the following conditions intended to protect manatees from direct project effects:

- a. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.
- b. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.
- c. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.
- d. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shutdown if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.
- e. Any collision with or injury to a manatee shall be reported immediately to the Florida Fish and Wildlife Conservation Commission (FWC) Hotline at 1-888-404-3922. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-731-3336) for north Florida or in Vero Beach (1-772-562-3909) for south Florida, and emailed to FWC at [ImperiledSpecies@myFWC.com](mailto:ImperiledSpecies@myFWC.com).
- f. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Temporary signs that have already been approved for this use by the FWC must be used. One sign which reads *Caution: Boaters* must be posted. A second sign measuring at least 8½" by 11" explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities. These signs can be viewed at [http://www.myfwc.com/WILDLIFEHABITATS/manatee\\_sign\\_vendors.htm](http://www.myfwc.com/WILDLIFEHABITATS/manatee_sign_vendors.htm). Questions concerning these signs can be forwarded to the email address listed above.

# CAUTION: MANATEE HABITAT

All project vessels

**IDLE SPEED / NO WAKE**

When a manatee is within 50 feet of work  
all in-water activities must

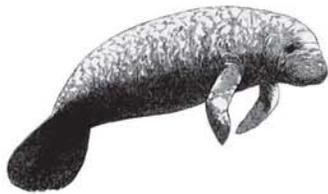
**SHUT DOWN**

Report any collision with or injury to a manatee:

**Wildlife Alert:**

**1-888-404-FWCC(3922)**

cell \*FWC or #FWC





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

CESAJ-PD-E (ER 200-2-2)

**MEMORANDUM FOR THE RECORD**

**SUBJECT:** Compliance with the Fish and Wildlife Coordination Act for the continued periodic renourishment of the Broward County Shore Protection Project (BCSPP), Segment II Beach Renourishment in Broward County, Florida.

**PURPOSE:** To document an informal understanding between the U.S. Army Corps of Engineers, Jacksonville District (Corps), and the U.S. Fish and Wildlife Service (USFWS), South Florida Ecological Services Office.

**BACKGROUND.** The purpose for the project is to provide coastal storm risk management through beach nourishment of the Segment II portion of the BCSPP in Broward County, Florida. The need of the project is driven by the loss of sand (erosion) along the shoreline, most recently from Hurricane Irma in September 2017. Erosion has reduced the width of the beach, thus increasing the risk for storm damages that are otherwise mitigated by the beach design. Periodic nourishment of the beach is required to replace sand along the shoreline and thus maintains the beach to its federally-authorized dimensions.

**PREFERRED ALTERNATIVE.** The Preferred Alternative is the continued periodic nourishment of Segment II of the BCSPP and the feeder beach via truck haul from upland sand mines. The upcoming nourishment event will include placement of approximately 413,000 cubic yards (CY) of sand in the following Florida Department of Environmental Protection (FDEP) monuments:

- Reach 1: Approximately 166,000 CY of sand to be placed between R-25 and R-31 above and below mean high water (MHW), with the inclusion of a feeder beach feature between R-28 and R-31. Approximately 22,000 CY of sand to be placed between R-31 and R-36 above MHW only.
- Reach 2: Approximately 42,000 CY of sand to be placed between R-36 and R-41.3 above and below MHW.
- Reach 3: Approximately 32,000 CY of sand to be placed between R-41.3 and R-51 above MHW only.
- Reach 4: Approximately 151,000 CY of sand to be placed between R-51 and R-72 above and below MHW.

Sand sources for the project will be from upland sand mine(s) and truck hauled to the beach fill area. Potential existing sand sources include E.R. Jahna Ortona Mine (Ortona), Stewart Immokalee Mine (Immoklaee), Vulcan Witherspoon Mine (Witherspoon), and/or Cemex Davenport Mine (Cemex). The draft EA also evaluates

CESAJ-PD-E (ER 200-2-2)

SUBJECT: Compliance with the Fish and Wildlife Coordination Act for the continued periodic renourishment of the Broward County Shore Protection Project (BCSPP), Segment II Beach Renourishment in Broward County, Florida.

the use of the upland sand mine Garcia Family Farm, LLC in Henry County (Garcia Mine).

The Corps has determined that the proposed project may affect, but is not likely to adversely affect (MANLAA) nesting sea turtles (green sea turtle (*Chelonia mydas*), hawksbill sea turtle (*Eretmochelys imbricata*), loggerhead sea turtle (*Caretta caretta*), leatherback sea turtle (*Dermochelys coriacea*), and Kemps' ridley sea turtle (*Lepidochelys kempii*)), Florida manatees (*Trichechus manatus latirostris*), American crocodiles (*Crocodylus acutus*), and piping plover (*Charadrius melodus*). The project will have no effect on beach jacquemontia (*Jacquemontia reclinata*). (Details on the Preferred Alternative can be found in the project's draft EA.)

COORDINATION. The Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq., March 10, 1934, as amended 1946, 1958, 1978, and 1995) (FWCA) requires Federal agencies to consult with USFWS regarding the impacts to fish and wildlife resources and the proposed measures to mitigate these impacts. Additional coordination authorities exist through the review process of the National Environmental Policy Act (NEPA; 42 U.S.C. 4321-4347, January 1, 1970, as amended 1975 and 1982) and the Endangered Species Act of 1973 (ESA; 7 U.S.C. 136, 16 U.S.C. 1531 et seq. December 28, 1973). USFWS continues to coordinate and consult with the Corps through NEPA and the ESA in which impacts to fish and wildlife resources are adequately addressed via these two authorities. USFWS will include comments relevant to FWCA in the USFWS review and response to this project's draft EA.

AGREEMENT. The undersigned, the Corps and USFWS, agree to utilize the project's NEPA review process to complete coordination responsibilities under the FWCA. This agreement will avoid duplicate analysis and documentation as authorized under 40 CFR section 1500.4 (k), 1502.25, 1506.4, and is consistent with Presidential Executive Order for Improving Regulation and Regulatory Review, released January 18, 2011.

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Roxanna Hinzman  
Field Supervisor  
South Florida Ecological Services Field Office

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Angela E. Dunn  
Chief, Environmental Branch



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

Planning and Policy Division  
Environmental Branch

18 May 2020

Chris Stahl  
Coordinator  
Florida State Clearinghouse  
Florida Department of Environmental Protection  
2600 Blair Stone Road, M.S. 47  
Tallahassee, FL 32399

Dear Mr. Stahl:

Pursuant to the National Environmental Policy Act and the U.S. Army Corps of Engineers Regulation (33 CFR 230.11), this letter constitutes the Notice of Availability of the proposed Finding of No Significant Impact (FONSI), draft Environmental Assessment (EA), and the Federal Consistency Determination (FCD) for the continued periodic renourishment of the Broward County Shore Protection Project, Segment II Beach Nourishment project in Broward County, Florida.

The Preferred Alternative is the continued periodic nourishment of Segment II of the BCSP and the feeder beach via truck haul from upland sand mines. The upcoming nourishment event will include placement of approximately 413,000 cubic yards (CY) of sand in the following Florida Department of Environmental Protection (FDEP) monuments:

- Reach 1: Approximately 166,000 CY of sand to be placed between R-25 and R-31 above and below mean high water (MHW), with the inclusion of a feeder beach feature between R-28 and R-31. Approximately 22,000 CY of sand to be placed between R-31 and R-36 above MHW only.
- Reach 2: Approximately 42,000 CY of sand to be placed between R-36 and R-41.3 above and below MHW.
- Reach 3: Approximately 32,000 CY of sand to be placed between R-41.3 and R-51 above MHW only.
- Reach 4: Approximately 151,000 CY of sand to be placed between R-51 and R-72 above and below MHW.

Sand sources for the project will be from upland sand mine(s) and truck hauled to the beach fill area. Potential existing sand sources include E.R. Jahna Ortona Mine (Ortona), Stewart Immokalee Mine (Immoklaee), Vulcan Witherspoon Mine

(Witherspoon), and/or Cemex Davenport Mine (Cemex). This EA also evaluates the use of the upland sand mine Garcia Family Farm, LLC in Henry County (Garcia Mine).

The Corps is requesting a consistency determination pursuant to the Coastal Zone Management Act and the Florida Coastal Management Program based on the information contained in the draft EA. We understand the final concurrence from your agency will be determined during the review performed as part of the state's environmental permitting process that includes water quality certification under Section 401 of the Clean Water Act. The proposed FONSI, draft EA, and associated appendices are available for your review on the Jacksonville District's Environmental planning website, under Broward County:

<http://www.saj.usace.army.mil/About/Divisions-Offices/Planning/Environmental-Branch/Environmental-Documents/>

(On that page, click on the "+" next to "Broward". Scroll down to the project name.)

The Corps determined that the proposed project is consistent with Florida's approved Coastal Zone Management Program. Due to current circumstances with COVID-19, the Corps is requesting that any questions or comments you may have be submitted in writing via electronic mail to [Kristen.L.Donofrio@usace.army.mil](mailto:Kristen.L.Donofrio@usace.army.mil) within 60 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 of comments via email is preferred.

Sincerely,



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Angela E. Dunn  
Chief, Environmental Branch

Encl

## **Broward County Shore Protection Project Segment II Beach Nourishment in Broward County, Florida**

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In order to comply with Section 7 of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*), the U.S. Army Corps of Engineers, Jacksonville District (Corps), respectfully requests a letter of concurrence within 30 days of the date of this letter from the U.S. Fish and Wildlife Service (USFWS) for the continued periodic renourishment of the Broward County Shore Protection Project (BCSPP), Segment II Beach Renourishment in Broward County, Florida.

The Corps has determined that the proposed project may affect, but is not likely to adversely affect (MANLAA) nesting sea turtles (green sea turtle (*Chelonia mydas*), hawksbill sea turtle (*Eretmochelys imbricata*), loggerhead sea turtle (*Caretta caretta*), leatherback sea turtle (*Dermochelys coriacea*), Kemp's ridley sea turtle (*Lepidochelys kempii*)), Florida manatees (*Trichechus manatus latirostris*), American crocodiles (*Crocodylus acutus*), and piping plover (*Charadrius melodus*). The project will have no effect on beach Jacquemontia (*Jacquemontia reclinata*).

Pursuant to our request, the Corps is providing the following information:

- Description of the Project Background;
- Description of the Project Location and Proposed Action;
- Listed Species Under USFWS Jurisdiction;
- Potential Effects to Listed Species and Efforts to Eliminate/Avoid Impacts; and
- Corps' Effect Determination.

### **Description of the Project Background**

The purpose for the project is to provide coastal storm risk management through beach nourishment of the Segment II portion of the BCSPP in Broward County, Florida. The need of the project is driven by the loss of sand (erosion) along the shoreline, most recently from Hurricane Irma in September 2017. Erosion has reduced the width of the beach, thus increasing the risk for storm damages that are otherwise mitigated by the beach design. Periodic nourishment of the beach is required to replace sand along the shoreline and thus maintains the beach to its federally-authorized dimensions.

Pursuant to NEPA and the ESA, the 2004 Final Environmental Impact Statement (EIS) BCSPP Segments II and III, Broward County, Florida and 2015 Broward County, Florida Shore Protection Project – Segment II, Limited Reevaluation Report (LRR) with Environmental Assessment (EA) included consultation with USFWS for potential effects to listed species. Due to the inclusion of the Reach 1 shore protection and feeder beach feature, the Corps reevaluated the project's potential effects to species under USFWS jurisdiction. The Corps determined that implementation of the Preferred Alternative (continued periodic renourishment of Segment II of the BCSPP and construction of the Reach 1 shore protection and feeder beach feature via truck haul from upland sand mines) may affect some federally-listed species under USFWS jurisdiction.

### **Description of the Project Location and Preferred Alternative**

Broward County is located on the southeast coast of Florida between Palm Beach County to the north and Miami-Dade County to the south. The shoreline of Broward County includes 24 miles of coastline and two coastal inlets. It is divided up into three segments: Segment I extends from the northern Broward County line to Hillsboro Inlet (Florida Department of Environmental Protection (FDEP) monuments R-1 to R-24), Segment II continues from Hillsboro Inlet to Port Everglades Inlet (R-25 to R-85), and Segment III reaches from Port Everglades to the southern Broward County line (R-86 to R-128) (see **Figure 1**).

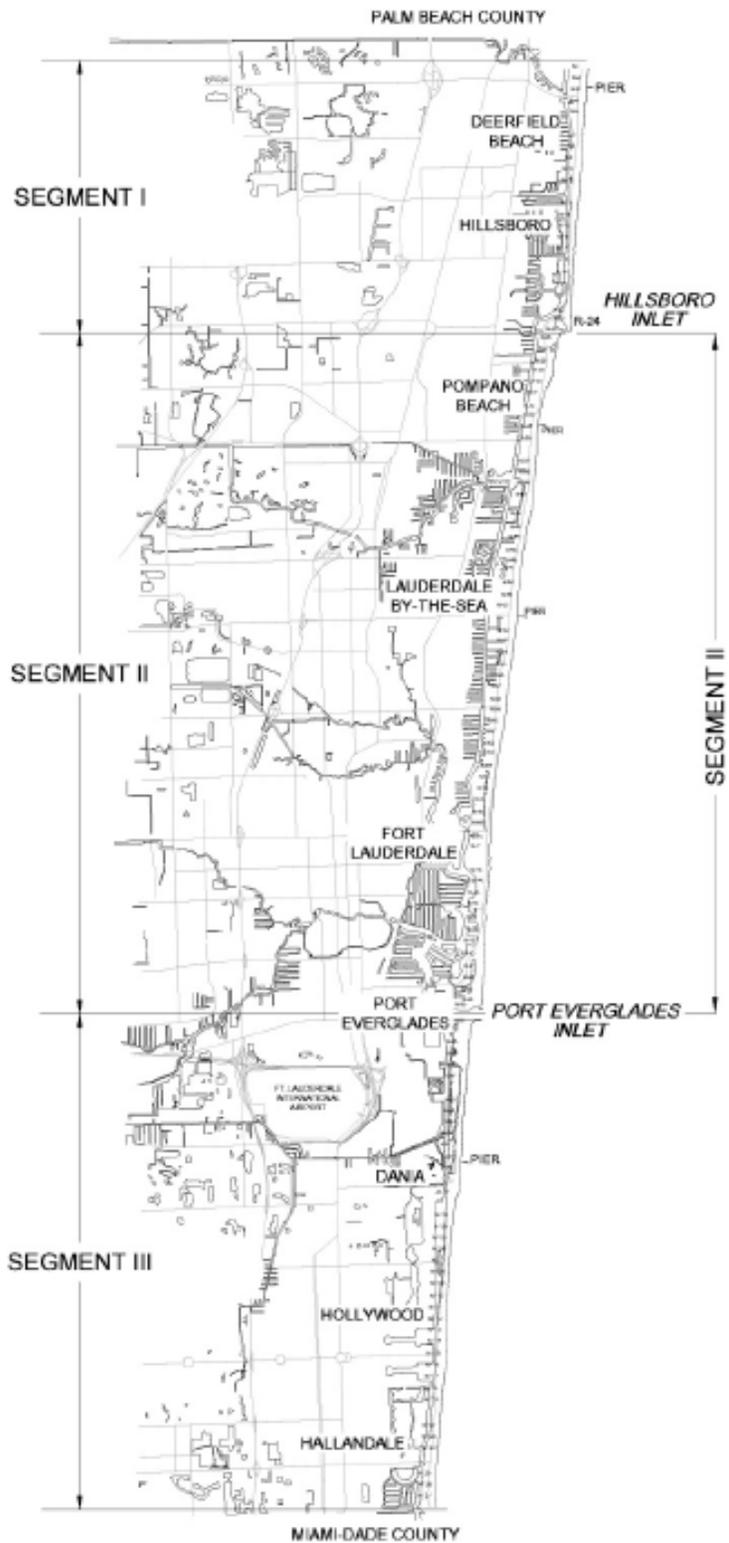


Figure 1. Map of the BCSP segment locations.  
SOURCE: CB&I and Olsen 2015

The authorized Federal project for Segment II includes the Atlantic Ocean shoreline in central Broward County between Hillsboro Inlet (R-25) and Port Everglades Inlet (R-85); however, only between R-25 and R-72 have been constructed to date. The Segment II shoreline is approximately 11.3 miles long and includes the municipalities of Pompano Beach, Lauderdale-By-The-Sea, Sea Ranch Lakes, and Fort Lauderdale. Sand will be placed along the 8.9 miles shoreline previously constructed between R-25 and R-72, which includes all four municipalities, but just the northern portion of Fort Lauderdale. The project is split into four reaches: Reach 1 (R-25 to R-36), Reach 2 (R-36 to R-41.3), Reach 3 (R-41.3 to R-51) and Reach 4 (R-51 to R-72).

The upcoming renourishment event will include placement of approximately 413,000 cubic yards (CY) of sand<sup>1</sup> along the following FDEP monuments:

- Reach 1: Approximately 166,000 CY of sand to be placed between R-25 and R-31 above and below mean high water (MHW), with the inclusion of a feeder beach feature between R-28 and R-31. Approximately 22,000 CY of sand to be placed between R-31 and R-36 above MHW only.
- Reach 2: Approximately 42,000 CY of sand to be placed between R-36 and R-41.3 above and below MHW.
- Reach 3: Approximately 32,000 CY of sand to be placed between R-41.3 and R-51 above MHW only.
- Reach 4: Approximately 151,000 CY of sand to be placed between R-51 and R-72 above and below MHW.

Sand sources for the project will be from upland sand mine(s) and truck hauled to the beach fill area. Potential existing sand sources include E.R. Jahna Ortona Mine (Ortona), Stewart Immokalee Mine (Immokalee), Vulcan Witherspoon Mine (Witherspoon), and/or Cemex Davenport Mine (Cemex).

### Listed Species under USFWS Jurisdiction

Listed species which may occur in the vicinity of the proposed work and are under the jurisdiction of the USFWS include the following species:

Common Name	Scientific Name	Listing Status	Corps' Effect Determination
Green sea turtle <i>North Atlantic Distinct Population Segment (DPS)</i>	<i>Chelonia mydas</i>	Threatened	MANLAA*
Hawksbill sea turtle	<i>Eretmochelys imbricata</i>	Endangered	MANLAA*
Leatherback sea turtle	<i>Dermochelys coriacea</i>	Endangered	MANLAA*

<sup>1</sup> The actual quantity of volume placed may vary based on changes in the existing conditions; the volumes provided are based on existing conditions and need identified through the November 2019 beach profile survey.

Common Name	Scientific Name	Listing Status	Corps' Effect Determination
Loggerhead sea turtle <i>Northwest Atlantic DPS</i>	<i>Caretta caretta</i>	Threatened/Critical Habitat	MANLAA*
Kemp's ridley sea turtle	<i>Lepidochelys kempii</i>	Endangered	MANLAA*
Piping plover	<i>Charadrius melodus</i>	Threatened	MANLAA*
Florida manatee	<i>Trichechus manatus latirostris</i>	Threatened	MANLAA*
American crocodile	<i>Crocodylus acutus</i>	Threatened	MANLAA*
Beach jacquemontia	<i>Jacquemontia reclinata</i>	Endangered	No Effect

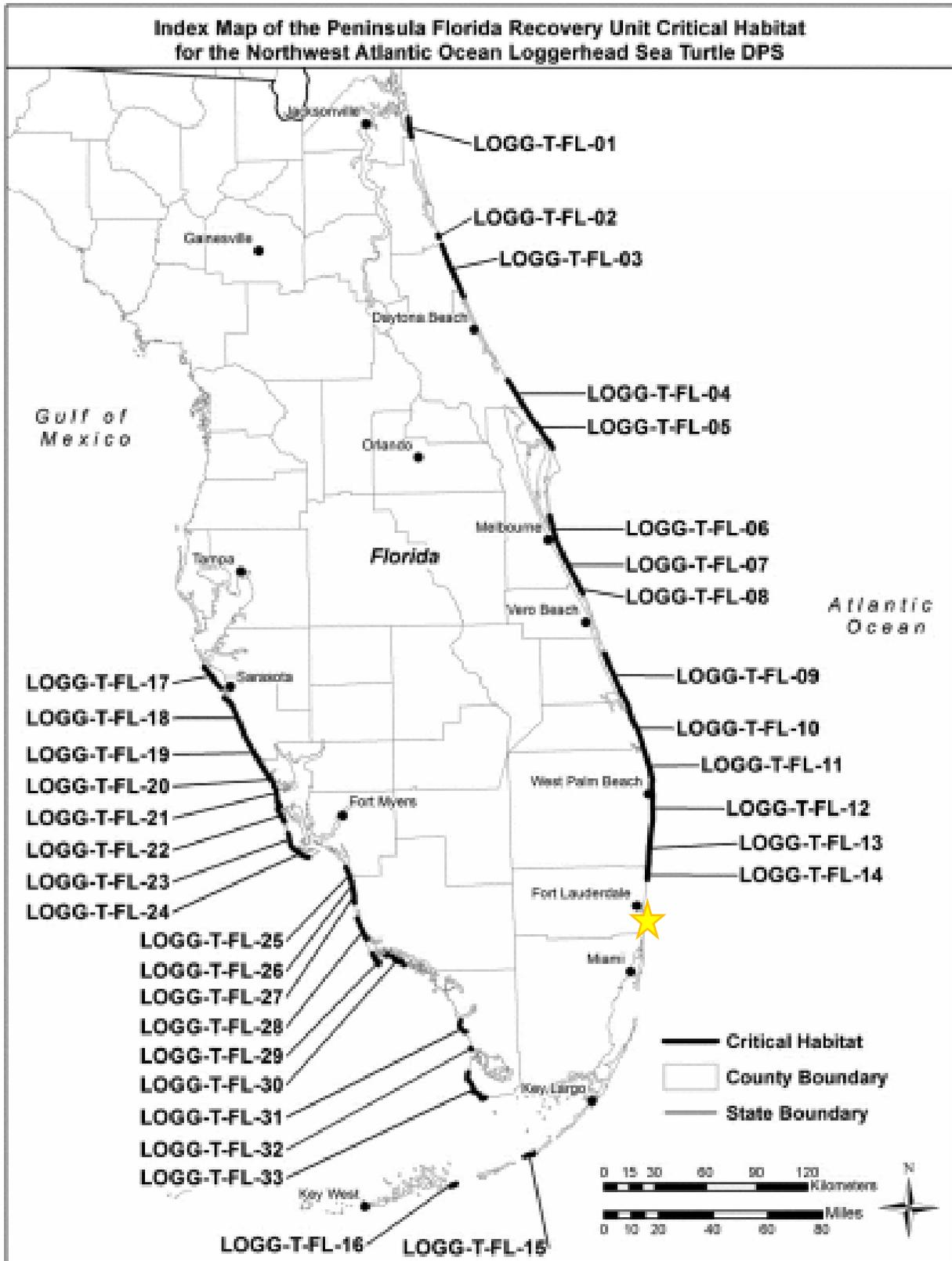
\*MANLAA = May affect, not likely to adversely affect

### Corps' Analysis and Effect Determinations on Listed Species under USFWS Jurisdiction:

*Nesting Sea Turtles (Green sea turtle, hawksbill sea turtle, leatherback sea turtle, loggerhead sea turtle, Kemp's ridley sea turtles)*

Broward County is within the nesting range of four species of sea turtles; the loggerhead (*Caretta caretta*), the North Atlantic Distinct Population Segment (DPS) of green sea turtle (*Chelonia mydas*) (80 FR 15272), hawksbill (*Eretmochelys imbricata*) and leatherback (*Dermochelys coriacea*). The leatherback sea turtle and hawksbill sea turtle are listed as endangered under the Endangered Species Act (ESA). The loggerhead sea turtle and the North Atlantic DPS of the green sea turtle are listed as threatened. Additionally, the waters offshore of Broward County are used for foraging and shelter for the four species listed above as well as the endangered Kemp's ridley sea turtle (*Lepidochelys kempii*). The USFWS designated critical habitat for the loggerhead sea turtle in 2014 (79 FR 39855-39912), including areas within the boundaries of Broward County; however, it is north of the project area (see **Figure 3**).

Three species of sea turtles, the loggerheads, greens, and leatherbacks, are known to regularly nest on Broward County beaches. Peak sea turtle nesting and hatching period is from May 1 to November 1 in Broward County, with nesting typically ending around mid-November. Broward County has maintained a conservation program for threatened and endangered sea turtle species since 1978. Conservation activities include the permitted relocation of nests from hazardous locations, accurate surveys of nesting patterns and nesting success, response to strandings/turtle emergencies, and public outreach. To reduce potential impacts to nesting and hatchling sea turtles, placement of sand on the beach is not allowed during the peak sea turtle nesting and hatching period, which is between May 1 to November 1 in Broward County.



**Figure 2. Map of USFWS Designated Critical Habitat for loggerhead sea turtles.**  
 (SOURCE: USFWS 2014)

*Corps' Effect Determination: MANLAA.*

The Corps determined that beach renourishment is consistent with the SPBO. By implementing the applicable terms and conditions (T&Cs) of the SPBO, the Corps determined that the project's beach placement activities may affect but are not likely to adversely affect nesting sea turtles. The SPBO acknowledges that placement of sand on a critically eroded beach can enhance sea turtle nesting habitat if the sand placed is highly compatible (*i.e.*, grain size, shape, color, etc.) with naturally occurring beach sediments at the recipient site, and compaction and escarpment remediation measures are properly adopted (USFWS 2015). Because a truck haul project would not require use of dredges or other vessels, it is unlikely that offshore sea turtle habitat would be impacted. A truck haul approach also minimizes the use of in-water vessels and the potential for entanglement, entrainment, or strikes. Effects to sea turtles from truck haul activity include risk of injury from interaction with heavy equipment during construction as well as avoidance of construction activities, related noise, and physical exclusion from areas blocked by turbidity curtains (if implemented). These effects are determined to be insignificant as direct, physical injury is not anticipated since sea turtles are highly mobile and able to easily avoid the area.

*Piping Plover*

The piping plover (*Charadrius melodus*) Atlantic Coast and Northern Great Plains populations were listed as threatened in 1985 (50 FR 50726). Piping plovers are generally found on sandy beaches on the Atlantic Coast and Great Lakes as well as sandbars along major rivers on the northern Great Plains. While most shorebirds have a wide distribution, the piping plover barely extends into Mexico during the winter (Audubon 2018). Piping plovers are foragers and feed on prey such as insects, marine worms, and crustaceans. The populations have declined primarily due to human disturbance on nesting areas, especially in competition for beach use. Nests are shallow scrapes in open ground with no direct shelter or shade. Although critical habitat was designated for the species in 2001 (66 FR 36038), there is no DCH in the project area.

*Corps' Effect Determination: MANLAA.*

The Corps determined that the project's beach placement activities may affect but are not likely to adversely affect piping plovers. Implementation of the Preferred Alternative would increase habitat that could be used by the piping plover; however, it is not considered optimal habitat. Direct effects to the birds from project construction are expected to be minimal as birds are motile and can avoid construction activities. Placement of sand on the beach may temporarily displace foraging and resting birds. This interruption is limited to the immediate area and duration of construction. Habitat exists outside of the beach placement areas with similar characteristics that may be used by displaced species while renourishment activities are underway. The prey base, which includes the benthic organisms, may be temporarily reduced in the proposed beach placement areas. This effect would be short-term as recovery of beach infauna is expected to occur quickly.

The project's beach placement activities and its effects on piping plover are consistent with those analyzed in the Piping Plover Programmatic Biological Opinion (P3BO). The

Corps will abide by all applicable minimization measures, RPMs, and T&Cs in the P3BO to ensure the protection of piping plovers that may be in the project area. If the species are found in the project footprint, the protective conditions developed for migratory birds will be utilized as well as conditions of the P3BO. Compliance with the reasonable and prudent measures and T&Cs listed in the P3BO will provide sufficient protection for piping plover.

#### West Indian (Florida) Manatee

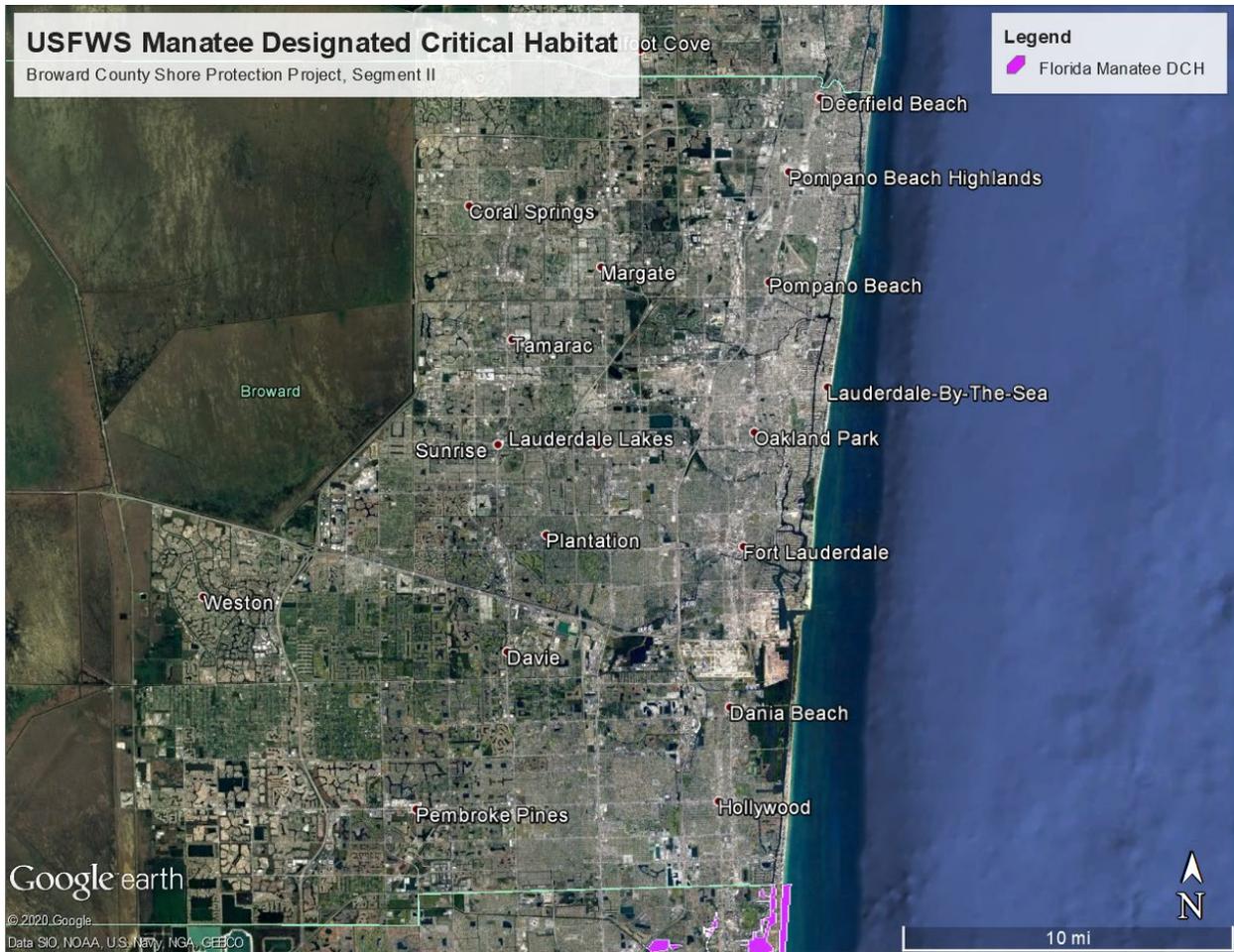
The Florida manatee is a subspecies of the West Indian manatee (*Trichechus manatus*) and can be found throughout the southeastern United States. The manatee is a large, plant-eating aquatic mammal that move between freshwater and saltwater environments. They can be found in shallow coastal waters, rivers, and springs. Adult manatees are approximately 10 feet long, weighing between 800 – 1200 pounds, and consume approximately 4-9% of their body weight each day. Although manatees feed underwater, they frequently rest just below the water surface with only the snout above water. Manatees were listed as endangered throughout its range for both the Florida and Antillean subspecies (*Trichechus manatus latirostris* and *Trichechus manatus manatus*) in 1967 (32 FR 4001). In May 2017, the USFWS reclassified the manatee from endangered to threatened.

Federal law, specifically the Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973 protects manatees. Critical habitat is defined under the Endangered Species Act as specific areas within and/or outside a geographical area that are occupied by a species at the time of listing, that contain physical or biological features essential to the conservation of the species and therefore require special management considerations or protection for the benefit of the species. Critical habitat for the Florida manatee was described in 1976 in 50 CFR 17.95 for Florida. The project is not located within USFWS designated critical habitat (DCH) (see **Figures 3 and 4**); however, the project is located in the Florida Fish and Wildlife Conservation Commission Manatee Protection Zone (see **Figure 5**).



**Figure 3. USFWS Florida manatee DCH.**

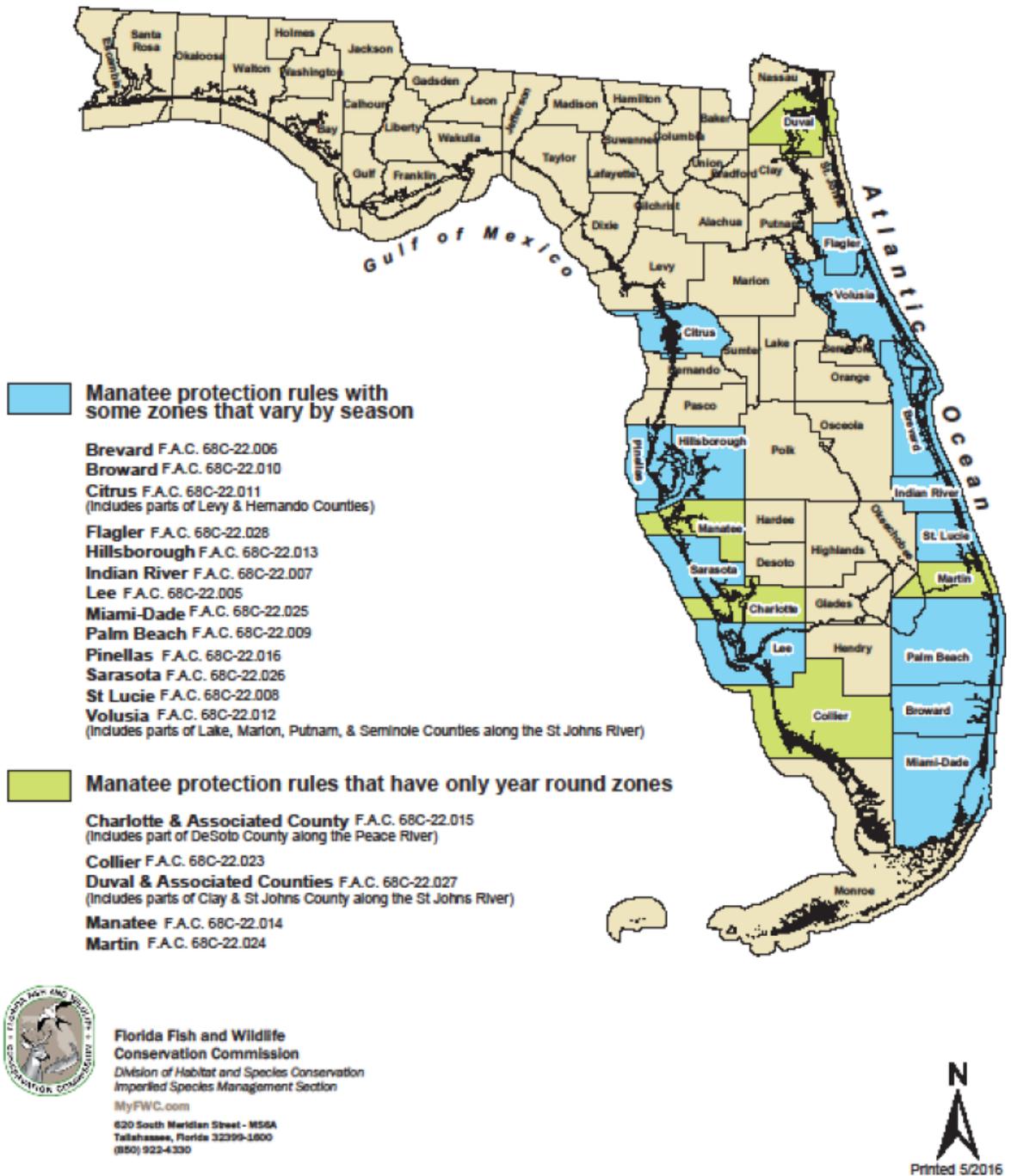
(Source: [https://www.fws.gov/northflorida/manatee/2009\\_CH\\_Petition/20100112\\_frn\\_Federal%20Register\\_manatee\\_12-mo\\_325.pdf](https://www.fws.gov/northflorida/manatee/2009_CH_Petition/20100112_frn_Federal%20Register_manatee_12-mo_325.pdf))



**Figure 4. USFWS Florida manatee DCH, zoomed to project vicinity.**

(Source: Resources at Risk layer, Corps' Regulatory Division)

## Florida Counties with FWC Manatee Protection Zones



**Figure 5. Florida Fish and Wildlife Conservation Commission (FWC) manatee protection zones.**

(Source: <http://myfwc.com/media/2944209/MPZStatewideMap.pdf>)

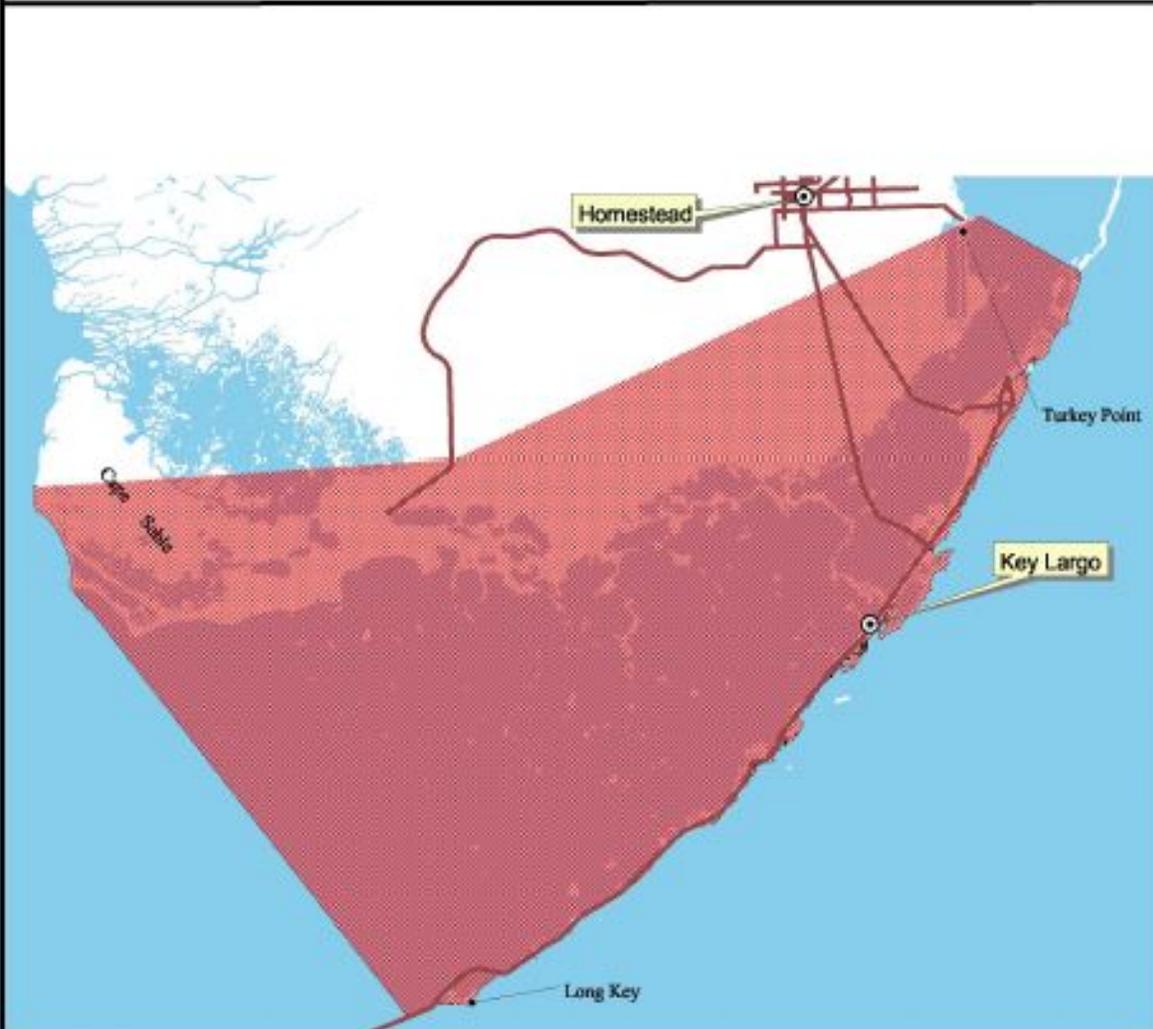
*Corps' Effect Determination: MANLAA.*

The Corps determined that the proposed project may affect, but is not likely to adversely affect Florida manatees. Although Florida manatees are unlikely to enter the project area, the species is located in the project vicinity. The use of a truck haul approach instead of a dredge-and-fill approach minimizes the use of in-water vessels and the potential for entanglement, entrainment, or strikes in the water. Direct, physical injury effects to this species are not anticipated from construction operations, machinery, or materials as the species are highly mobile and able to easily avoid the area; however, the Corps will include the 2011 USFWS' Standard Manatee Conditions for In-Water Work (see Attachment 1) in the project plans and specifications to ensure protection of the species. The Corps determined implementation of the Preferred Alternative may affect, but is not likely to adversely affect, Florida manatees.

*American Crocodile*

The American crocodile (*Crocodylus acustus*) is endemic to the United States and inhabits mostly low-energy bays, creeks, and inland swamps in extreme South Florida, the Caribbean, Mexico, Central America and northern South America. The species was listed as endangered by the USFWS in 1975 (40 FR 44151) due to habitat loss and fragmentation, changes in the distribution, timing, and quantity of water flows, and hunting for hide and meat. Hurricanes, cold weather, and traffic also threaten the mortality of American crocodiles. In March 2007, the USFWS reclassified the American crocodile from endangered to threatened. Feeding typically occurs shortly before sunset to just after sunrise and consists of opportunistic foraging for any animals they can catch and easily overpower. Nesting habitat includes sandy shorelines, creek banks adjacent to deep water, or manmade structures, such as canal berms. Males establish and defend breeding territory from late February through March. Females select a nest site and typically clutch size ranges from as few as eight to as many as 56 eggs. Hatchlings are about 10 inches and yellowish-tan in color with cross markings that fade as they grow. Adults are typically greenish-gray with black mottling and can be over 14 feet long. Although DCH was identified in 1979 in the extreme southern portion of Florida (44 CFR 75076), no DCH is present in the project area (see **Figure 6**).

## General locations of the designated critical habitat for the American crocodile.



### General Area



### Distance: Miles

0 5 10 15 Miles



### Legend

-  City/Town
-  Major Road/Highway
-  Critical Habitat

Use Constraints: This map is intended to be used as a guide to identify the general areas where critical habitat has been designated. Refer to the narrative description published in the Code of Federal Regulations (CFR) 50 Parts 1 to 199 (a copy of this text is printed on the reverse of this map).

Figure 6. USFWS American crocodile DCH.

(Source: <https://ecos.fws.gov/ecp0/profile/speciesProfile?scode=C02J#crithab>)

*Corps' Effect Determination: MANLAA.*

The Corps has determined that the proposed project may affect, but is not likely to adversely affect American crocodiles. Although American crocodiles are unlikely to be found in an area with high levels of disturbance (i.e. vessel traffic, human attention, etc.), this species has been sighted in the surf zone in beaches south of the project area. Although a truck haul approach minimizes the use of in-water vessels and the potential for entanglement, entrainment, or strikes in the water, American crocodiles could also be found on the beach or in the surf zone. Due to the species being highly mobile and able to easily avoid the area, direct, physical injury effects to this species are not anticipated from construction operations, machinery, or materials.

*Beach Jacquemontia*

*Jacquemontia reclinata* is commonly known as beach jacquemontia or beach clustervine. This species is a perennial vine with a woody base and non-woody, twining stems up to six feet long. Leaves are fleshy, rounded or egg-shaped and approximately 1-inch long with blunted or indented tips. Flowers are white or pinkish, 1-inch across, and deeply five-lobed with a short tube. *Jacquemontia reclinata* is endemic to the coastal barrier islands in southeast Florida from Palm Beach to Miami-Dade Counties (Johnson et al. 1992).

*Jacquemontia reclinata* was listed as federally endangered in 1993 (58 FR 62046). The majority of habitat, coastal beach strand, has been destroyed or lost due to residential and commercial construction, development of recreational areas, and beach erosion. This species is further threatened by invasion of exotic plant species including Australian pine, carrotwood, Brazilian pepper, and turf grass. The 2013 EA (Corps 2013) describes that all but one of the wild populations in Florida exist on public lands in parks or conservation areas and surveys indicate that studied populations were declining in total number of individuals. Protection and management of this species involves removal of exotics, protecting coastal habitats from development by conservation purchases or easements, and establishing new populations of this species in protected areas. Major threats to survival of this species include highly fragmented habitat due to coastal development, and associated reproductive isolation that hinders genetic variability and reproduction.

*Corps' Effect Determination: No effect.*

Given the low documented abundance for beach jacquemontia in the project area, the Corps determined the proposed project would have no effect on this species. However, if beach jacquemontia is in the area, placement of sand on the beach may benefit the species by increasing available habitat.

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ATTACHMENT 1:  
USFWS 2011 STANDARD MANATEE CONDITIONS FOR IN-WATER WORK