APPENDIX A

PERTINENT CORRESPONDENCE

ENVIRONMENTAL ASSESSMENT FOR ST. LUCIE INLET SOUTH JETTY REHABILITATION

ST. LUCIE INLET, MARTIN COUNTY, FLORIDA

NEPA ID#: EAXX-202-00-K3P-1742397469

U.S. Army Corps of Engineers
JACKSONVILLE DISTRICT

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207

Planning and Policy Division
Environmental Branch

July 21, 2025

TO WHOM IT MAY CONCERN:

The U.S. Army Corps of Engineers, Jacksonville District (Corps) is beginning preparation of a National Environmental Policy Act (NEPA) document to address rehabilitation efforts for the south jetty of St. Lucie Inlet in Martin County, Florida. The Corps is the Federal agency responsible for maintenance of navigational measures such as jetties. The non-federal sponsor (NFS) for the proposed rehabilitation efforts is Martin County. The Corps is currently gathering information to define issues and concerns that will be addressed in an analysis to be prepared in compliance with the NEPA.

The St. Lucie Inlet is located in Martin County, Florida on the east coast of the state just north of Jupiter, Florida (*see* Figures 1, 2, and 3). Within the project vicinity there are seagrasses, threatened and endangered species, designated critical habitat, wetlands (including mangroves), and other fish and wildlife resources. The St. Lucie Inlet Federal project was authorized in Section 201 of the Flood Control Act of 1965 (PL 89-298) as amended by Section 131 of the 1976 Water Resources Development Act, in accordance with House Document Number 93-294, 93rd Congress. Congressional authorization directed the Corps to construct and maintain a new south jetty with a walkway for fishermen at a length of 1,200 feet with an additional 1,200 feet for deferred construction. The existing south jetty construction was completed in 1982 by the Corps, at an approximate length of just over 1,300 feet with the remaining length deferred indefinitely.

The Corps welcomes your views, comments and information regarding environmental and cultural resources, project objectives, and important features within the described project area. In accordance with the Corps' commitment to public participation and stakeholder engagement, you are encouraged to share this scoping letter broadly with other interested parties, organizations, or stakeholders who may have an interest and/or wish to provide input. The Corps will accept written comments regarding the proposed project via email to CESAJ-StLucieJetty@usace.army.mil or by U.S. mail to the letterhead address for 30 calendar days from the date of this letter. All individuals who respond with comments will be included in future mailings. Others may be added to the mailing by making a written request by email to the address above. All comments will be passed to the project delivery team to inform the planning and development of the NEPA document.

If you have any questions, please contact Ms. Katie Lebow via email at CESAJ-StLucieJetty@usace.army.mil. Thank you for your assistance.

Sincerely,

Gretchen S. Ehlinger, Ph.D.
Chief, Environmental Branch

Enclosure

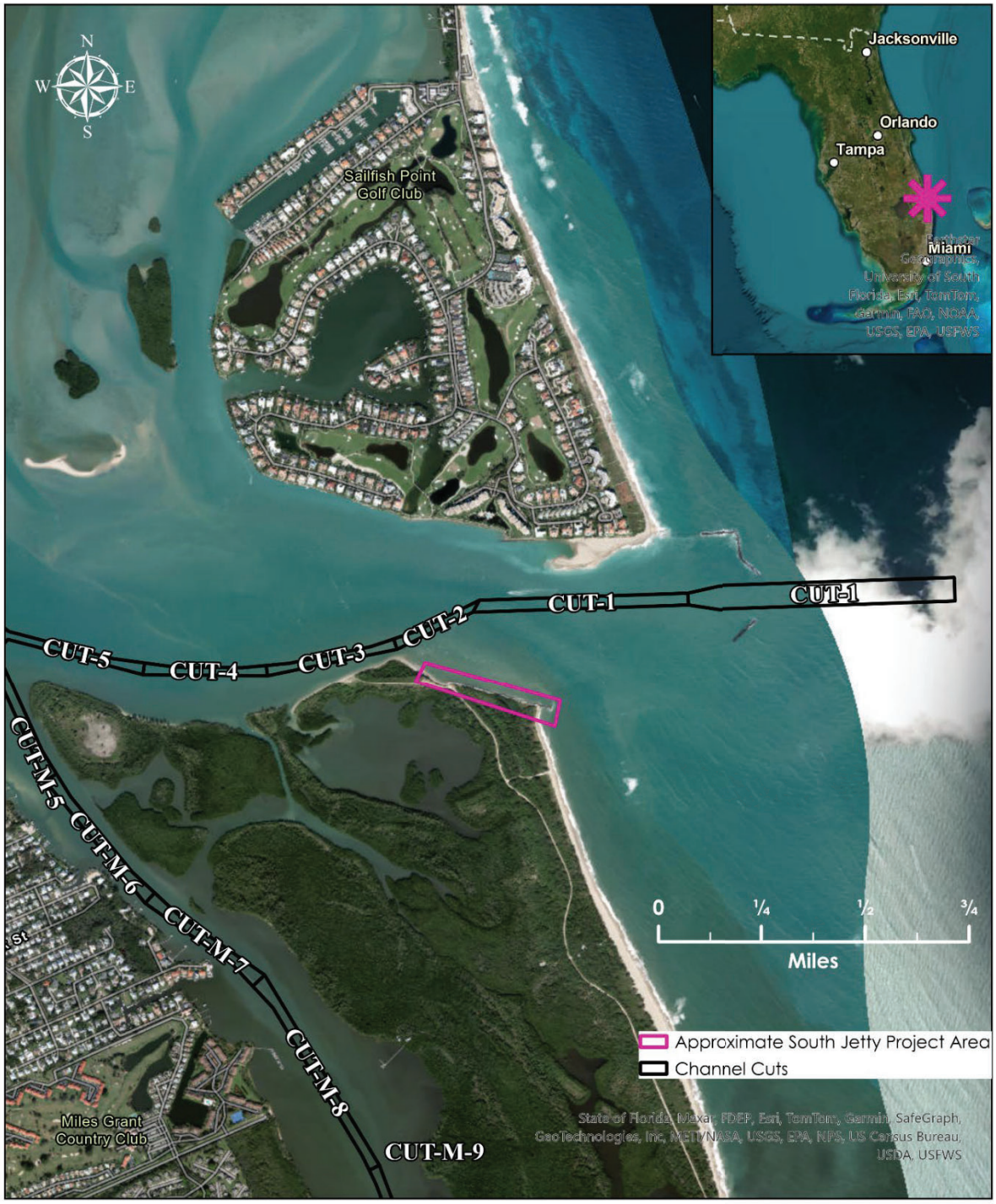

Figure 1: St. Lucie Inlet South Jetty Rehabilitation Project Area

Figure 2: Zoomed in view of the St. Lucie Inlet South Jetty

Figure 3: St. Lucie South Jetty Head

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207

August ##, 2026

Planning and Policy Division
Environmental Branch

To Whom it May Concern,

Pursuant to the National Environmental Policy Act of 1969, as amended, 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 associated appendices for the St. Lucie Inlet South Jetty Rehabilitation project in Martin County, Florida. These documents were prepared by the U.S. Army Corps of Engineers, Jacksonville District (Corps).

The Preferred Alternative includes rehabilitation of the seaward head of the south jetty, specifically the seaward-most 400-500 feet (ft) by restabilizing the structure foundation and placing a second layer of large armor stone. The armor stone will be 9-to-15-ton granite, and existing stones within the jetty footprint will be reused whenever practicable. Additional core stone will be brought in as needed and will be a weight between 1600 and 3200 pounds.

In order to complete the rehabilitation, the existing stone will be lifted out of place, and the material below will be excavated to depths no greater than 15 below the current seafloor. Once excavation is complete, an approximately 1-foot-thick marine mattress will be placed. The marine mattress will be comprised of fill stone between 1.5 and 4 inches in size that is enveloped in geotextile. Placement of the marine mattress will expand the footprint of the jetty by approximately 80 feet in total in order to provide a more stable base for the structure. Once the mattress is placed, the core of the jetty will be constructed using existing and new stone as necessary, with 2 layers of armor stone placement following core construction.

The proposed FONSI, draft EA, and associated appendices are available for your review on the Corps' Environmental Planning website, under Martin County: https://www.saj.usace.army.mil/About/Divisions-Offices/Planning/Environmental-Branch/Environmental-Documents/. (On that page, click on the "+" next to "Martin" and scroll down to the project name.)

The Corps is requesting that any questions or comments you may have on the project be submitted to the letterhead address or via email to Kathryn.E.Lebow@usace.army.mil within 30 days from the date of this Notice of Availability.

Sincerely,

Gretchen S. Ehlinger, Ph.D.
Chief, Coastal and Navigation
Environmental Branch

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207

August ##, 2026

Planning and Policy Division
Environmental Branch

Mr. Jose Rivera
Supervisor, Environmental Review and Consultation
U.S. Fish and Wildlife Service
777 37th Street, Suite D-101
Vero Beach, Florida

Dear Mr. Rivera,

Pursuant to the National Environmental Policy Act of 1969, as amended, 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 associated appendices for the St. Lucie Inlet South Jetty Rehabilitation project in Martin County, Florida. These documents were prepared by the U.S. Army Corps of Engineers, Jacksonville District (Corps).

In accordance with provisions of Section 7 of the Endangered Species Act of 1973, as amended, the Corps is initiating formal consultation with the U.S. Fish and Wildlife Service (USFWS) for the aforementioned project. The Corps requests written concurrence with our determinations as listed in Table 1 below. A biological assessment is enclosed.

Table 1: Corps effects determinations for ESA-listed species within USFWS jurisdiction for the St. Lucie South Jetty Rehabilitation Project

Common Name	Scientific Name	Effect Determinations
Eastern Black Rail	*Laterallus jamaicensis jamaicensis*	MANLAA
Florida Scrub-jay	*Aphelocoma coerulescens*	MANLAA
Piping Plover[D]	*Charadrius melodus*	MANLAA; NLAM
Florida Bonneted Bat	*Eumops floridanus*	MANLAA
Southeastern Beach Mouse	*Peromyscus polionotus niveiventris*	NE
West Indian (Florida) Manatee[D]	*Trichechus manatus latirostris*	MANLAA
Tricolored Bat	*Perimyotis subflavus*	MANLAA
Eastern Indigo Snake	*Drymarchon couperi*	MANLAA
Green Sea Turtle[P; 1]	*Chelonia mydas*	MALAA; NLAM

Common Name	Scientific Name	Effect Determinations
Hawksbill Sea Turtle	*Eretmochelys imbricata*	MANLAA
Kemp's Ridley Sea Turtle	*Lepidochelys kempii*	MANLAA
Leatherback Sea Turtle	*Dermochelys coriacea*	MALAA
Loggerhead Sea Turtle[D]	*Caretta caretta*	MALAA; NLAM
Beach Jacquemontia	*Jacquemontia reclinata*	NE
Four-Petal Pawpaw	*Asimina tetramera*	NE
Tiny Polygala	*Polygala smallii*	NE

The Preferred Alternative includes rehabilitation of the seaward head of the south jetty, specifically the seaward-most 400-500ft by restabilizing the structure foundation and placing a second layer of large armor stone. The armor stone would be 9-to-15-ton granite, and existing stones within the jetty footprint would be reused whenever practicable. Additional core stone will be brought in as needed and will be a weight between 1600 and 3200 pounds.

In order to complete the rehabilitation, the existing stone will be lifted out of place, and the material below will be excavated to depths no greater than 15 below the current seafloor. Once excavation is complete, an approximately 1-foot-thick marine mattress will be placed. The marine mattress will be comprised of fill stone between 1.5 and 4 inches in size that is enveloped in geotextile. Placement of the marine mattress will expand the footprint of the jetty by approximately 80 feet in total in order to provide a more stable base for the structure. Once the mattress is placed, the core of the jetty will be constructed using existing and new stone as necessary, with 2 layers of armor stone placement following core construction.

The proposed FONSI, draft EA, and associated appendices are available for your review on the Corps' Environmental Planning website, under Martin County: https://www.saj.usace.army.mil/About/Divisions-Offices/Planning/Environmental-Branch/Environmental-Documents/. (On that page, click on the "+" next to "Martin" and scroll down to the project name.)

If you have any questions or concerns regarding this consultation request, please contact Ms. Katie Lebow via email at Kathryn.E.Lebow@usace.army.mil or telephone at (904) 232-2030. The Corps requests that any questions or comments you may have on the project's proposed FONSI, draft EA, or associated appendices be submitted via email to Kathryn.E.Lebow@usace.army.mil within 30 days from the date of this Notice of Availability.

Sincerely,

Gretchen Ehlinger, Ph.D.
Chief, Coastal and Navigation
Environmental Branch

Enclosure

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FL 32207-8137

CESAJ-PD-E June ##, 2026

MEMORANDUM FOR THE RECORD

SUBJECT: COMPLIANCE WITH THE FISH AND WILDLIFE COORDINATION ACT FOR DRAFT ENVIRONMENTAL ASSESSMENT (SEA) FOR ST. LUCIE SOUTH JETTY REHABILITATION PROJECT (NEPA ID: EAXX-202-00-K3P-1742397469).

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), Florida Ecological Services Office.

BACKGROUND. Since its construction, the south jetty has jetties have been battered by hurricanes, nor-easters, and other coastal events. Modifications to the north jetty occurred in 2009, and no additional maintenance has been needed since. However, these events have led to the degradation of the south jetty by weakening the structure, including removal of asphalt from the walkway along the jetty crest, breaches through the core of the structure, and displacement of armor and core stones. The existing breaches in the jetty head have resulted in the erosion of the beach immediately to the south, including upland dune and vegetation losses, and increased sand transport into the inlet. Due to this degradation, most notably the breaches, the jetty is no longer performing as intended and authorized and requires rehabilitation in order to return to its optimal functionality as a navigational structure. The Preferred Alternative consists of a full rehabilitation of the existing jetty structure using standard construction, including the expansion of the jetty footprint. Rehabilitation of the jetty will include excavation of material in order to place marine mattress for the expanded footprint of the structure. The project area is located in Martin County on the east coast of Florida north of Jupiter, Florida and south of Ft. Pierce, Florida. The purpose and function of the south jetty is to limit sand transport into the inlet by stabilizing the southern portion of the inlet (i.e., the northern shoreline of Jupiter Island) and the beaches immediately south. The goal of the proposed federal action is to provide safe and efficient vessel navigation through the federal channel and inlet through rehabilitation of the jetty.

The Environmental Assessment (EA) evaluates various alternatives that would meet the project goals and maintain safe and efficient navigation within the channel and inlet. The preferred alternative includes:

a. Full rehabilitation of the south jetty includes excavation of the sandy bed material in order to place a widened marine mattress foundation, placement of large-scale stone to form the structure foundation and provide scour protection, removal and disposal of the damaged asphalt walkway, repair of the existing core and single layer of armor stone, and addition of a second layer of large-scale armor stone to

stabilize the structure, raise the structure crest elevation, and increase the structure width.

b. Armor stone is 9-to-15-ton granite, and existing stones within the jetty footprint would be reused whenever practicable. Additional core stone will be imported as needed and will weigh between 1600 and 3200 pounds. The marine mattress will be comprised of fill stone between 1.5 and 4 inches in size that is enveloped in geogrid, creating an approximately 1-foot-thick mattress. Excavation will be to depths no greater than 15 feet from the existing seafloor.

c. Placement of the marine mattress will expand the footprint of the jetty be approximately 80 feet in total.

The Corps determined that the proposed project may affect, but is not likely to adversely affect (MANLAA): Eastern black rail (*Laterallus jamaicensis jamaicensis*), Florida scrub-jay (*Aphelocoma coerulescens*), piping plover (*Charadrius melodus*), Florida bonneted bat (*Eumops floridanus*), Florida manatee (*Trichechus manatus latirostris*), tricolored bat (*Perimyotis subflavus*), eastern indigo snake (*Drymarchon couperi*), hawksbill sea turtle (*Eretmochelys imbricata*), and Kemp's ridley sea turtle (*Lepidochelys kempii*). The Corps has also determined that the proposed project may affect and is likely to adversely affect (MALAA): green sea turtle (*Chelonia mydas*), leatherback sea turtle (*Dermochelys coriacea*), and loggerhead sea turtle (*Caretta caretta*). The project is not likely to adversely modify (NLAM) designated critical habitat for loggerhead sea turtle or piping plover, and is NLAM proposed critical habitat for green sea turtle.

Details on the proposed project will be available in the EA, which is available for review on the Jacksonville District's Environmental Planning website, under Martin County:

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

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

COORDINATION. The Fish and Wildlife Coordination Act (FWCA; 16 U.S.C. 661 et seq., March 10, 1934, as amended 1946, 1958, and 2019) 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, as amended 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983,1984, 1986, 1988, 1990, 2000, 2002, 2003, 2008, 2014, and 2022). 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 SEA.

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 (m), 1502.25, 1506.4, and is consistent with Presidential Executive Order No. 13563 for Improving Regulation and Regulatory Review, released January 18, 2011.

Jose Rivera Division Manager, Environmental Review North Florida Ecological Services Field Office	Gretchen S. Ehlinger, Ph.D. Chief, Environmental Branch

FLORIDA DEPARTMENT of STATE

RON DESANTIS
Governor

CORD BYRD
Secretary of State

Department of the Army
Corps Of Engineers, Jacksonville District
701 San Marco Boulevard
Jacksonville, Florida 32207-8175

August 22, 2025

RE: DHR Project File No.: 2025-5508; Received by DHR: July 30th, 2025
Application No.:
Project: USACE St Lucie Inlet South Jetty Rehabilitation, Martin County, Florida
County: Martin

To Whom It May Concern:

The Florida State Historic Preservation Officer reviewed the referenced project for possible effects on historic properties listed, or eligible for listing, on the *National Register of Historic Places.* The review was conducted in accordance with Section 106 of the *National Historic Preservation Act of 1966*, as amended, and its implementing regulations in *36 CFR Part 800: Protection of Historic Properties*.

It is the opinion of this office that the proposed project is unlikely to affect historic properties. However, the permit, if issued, should include the following special condition regarding unexpected discoveries:

- If prehistoric or historic artifacts, such as pottery or ceramics, projectile points, dugout canoes, metal implements, historic building materials, or any other physical remains that could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, the permitted project shall cease all activities involving subsurface disturbance in the vicinity of the discovery. The applicant shall contact the Florida Department of State, Division of Historical Resources, Compliance and Review Section at (850)-245-6333. Project activities shall not resume without verbal and/or written authorization. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, *Florida Statutes*.

If you have any questions, please contact Danica Vasic, Historic Sites Specialist, by email at Danica.Vasic@dos.fl.gov , or by telephone at 850.245.6368 or 800.847.7278.

Sincerely,

Kelly L Chase
For

Alissa Lotane
Director, Division of Historical Resources
& State Historic Preservation Officer

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207

July 30, 2025

Planning and Policy Division
Environmental Branch

Dr. Savannah Waters
Tribal Historic Preservation Officer
Muscogee Nation
P.O. Box 580
Okmulgee, Oklahoma 74447

Subject: St Lucie Inlet South Jetty Rehabilitation, Martin County, Florida

Dear Dr. Waters:

The U.S. Army Corps of Engineers, Jacksonville District (Corps) is studying the environmental effects associated with proposed rehabilitation efforts for the south jetty of St. Lucie Inlet in Martin County, Florida. The south jetty is located at 27.1637303 Latitude and -80.1597694 Longitude (see Figure 1). The existing south jetty construction was completed in 1982 by the Corps, at an approximate length of just over 1,300 feet. The current work is focused on repairing the jetty (see Figure 2).

Pursuant to Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108) and its implementing regulations (36 C.F.R. § 800.16(y)), the rehabilitation of the jetty constitutes an undertaking and the existing easement and associated staging and access areas represent the area of potential effects (APE). The Corps is initiating Section 106 consultation with your office. The Corps values your input and welcomes input about study objectives and information about cultural resources and important features within the study area. Should you have comments at this stage, please respond in writing within 30 days of receipt of this letter to Dr. Zuzana Chovanec, Archeologist at 904-232-2176 or by email at Zuzana.Chovanec@usace.army.mil within 30 days of the date of this letter.

Sincerely,

Meredith A. Moreno, M.A., RPA
Cultural Resources Chief
Deputy, Environmental Branch

Enclosure(s)

cc:

Dr. Savannah Waters, THPO, swaters@muscogeenation.com

Ms. RaeLynn Butler, Secretary of Cultural and Humanities, raebutler@muscogeenation.com

Muscogee Nation Section 106, Section106@muscogeenation.com

Figure 1: St. Lucie Inlet, South Jetty Rehabilitation, APE

Figure 2: Close up view of the St. Lucie South Jetty Head

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207

July 30, 2025

Planning and Policy Division
Environmental Branch

Mr. Jason Daniel
Tribal Historic Preservation Officer
Miccosukee Tribe of Indians of Florida
P.O. Box 440021
Tamiami Station Miami, Florida 33144

Subject: St Lucie Inlet South Jetty Rehabilitation, Martin County, Florida

Dear Mr. Daniel:

The U.S. Army Corps of Engineers, Jacksonville District (Corps) is studying the environmental effects associated with proposed rehabilitation efforts for the south jetty of St. Lucie Inlet in Martin County, Florida. The south jetty is located at 27.1637303 Latitude and -80.1597694 Longitude (see Figure 1). The existing south jetty construction was completed in 1982 by the Corps, at an approximate length of just over 1,300 feet. The current work is focused on repairing the jetty (see Figure 2).

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Sincerely,

Meredith A. Moreno, M.A., RPA
Cultural Resources Chief
Deputy, Environmental Branch

Enclosure(s)

cc:

Mr. Jason Daniel, THPO, JasonD@miccosukeetribe.com

Figure 1: St. Lucie Inlet, South Jetty Rehabilitation, APE

Figure 2: Close up view of the St. Lucie South Jetty Head

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207

July 30, 2025

Planning and Policy Division
Environmental Branch

Ms. Alissa Slade Lotane
State Historic Preservation Officer
Division of Historical Resources
500 South Bronough Street
R.A. Gray Building, Room 305
Tallahassee, FL 32399-0250

Subject: St Lucie Inlet South Jetty Rehabilitation, Martin County, Florida

Dear Ms. Lotane:

The U.S. Army Corps of Engineers, Jacksonville District (Corps) is studying the environmental effects associated with proposed rehabilitation efforts for the south jetty of St. Lucie Inlet in Martin County, Florida. The south jetty is located at 27.1637303 Latitude and -80.1597694 Longitude (see Figure 1). The existing south jetty construction was completed in 1982 by the Corps, at an approximate length of just over 1,300 feet. The current work is focused on repairing the jetty (see Figure 2).

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Sincerely,

Meredith A. Moreno, M.A., RPA
Cultural Resources Chief
Deputy, Environmental Branch

Enclosure(s)

cc:

Ms. Alissa Slade Lotane, DHR, SHPO, alissa.lotane@dos.myflorida.com

Ms. Kelly Chase, DHR, Supervisor of Compliance Review, kelly.chase@dos.myflorida.com

Mr. Ethan Putman, DHR, Compliance Reviewer, ethan.putman@dos.myflorida.com

DHR, Compliance Review, CompliancePermits@dos.myflorida.com

Figure 1: St. Lucie Inlet, South Jetty Rehabilitation, APE

Figure 2: Close up view of the St. Lucie South Jetty Head

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207

July 30, 2025

Planning and Policy Division
Environmental Branch

Mr. Jeff Harjo
Tribal Historic Preservation Officer
Seminole Nation of Oklahoma
P.O. Box 1498
Wewoka, Oklahoma 74884

Subject: St Lucie Inlet South Jetty Rehabilitation, Martin County, Florida

Dear Mr. Harjo:

The U.S. Army Corps of Engineers, Jacksonville District (Corps) is studying the environmental effects associated with proposed rehabilitation efforts for the south jetty of St. Lucie Inlet in Martin County, Florida. The south jetty is located at 27.1637303 Latitude and -80.1597694 Longitude (see Figure 1). The existing south jetty construction was completed in 1982 by the Corps, at an approximate length of just over 1,300 feet. The current work is focused on repairing the jetty (see Figure 2).

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Sincerely,

Meredith A. Moreno, M.A., RPA
Cultural Resources Chief
Deputy, Environmental Branch

Enclosure(s)

cc:

Mr. Jeff Harjo, Tribal Historic Preservation Officer, Harjo_Je@sno-nsn.gov

Figure 1: St. Lucie Inlet, South Jetty Rehabilitation, APE

Figure 2: Close up view of the St. Lucie South Jetty Head

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207

July 30, 2025

Planning and Policy Division
Environmental Branch

Ms. Tina Osceola
Tribal Historic Preservation Officer
Seminole Tribe of Florida
Ah-Tah-Thi-Ki Museum
30290 Josie Billie Hwy, PMB 1004
Clewiston, Florida 33440

Subject: St Lucie Inlet South Jetty Rehabilitation, Martin County, Florida

Dear Ms. Osceola:

The U.S. Army Corps of Engineers, Jacksonville District (Corps) is studying the environmental effects associated with proposed rehabilitation efforts for the south jetty of St. Lucie Inlet in Martin County, Florida. The south jetty is located at 27.1637303 Latitude and -80.1597694 Longitude (see Figure 1). The existing south jetty construction was completed in 1982 by the Corps, at an approximate length of just over 1,300 feet. The current work is focused on repairing the jetty (see Figure 2).

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Sincerely,

Meredith A. Moreno, M.A., RPA
Cultural Resources Chief
Deputy, Environmental Branch

Enclosure(s)

cc:

Ms. Tina Osceola, Tribal Historic Preservation Officer, TinaOsceola@semtribe.com

Ms. Danielle Simon, Compliance Manager, DanielleSimon@semtribe.com

Ms. Victoria Menchaca, Compliance Analyst II, VictoriaMenchaca@semtribe.com

Seminole Tribe of Florida, THPO Compliance, THPOCompliance@semtribe.com

Figure 1: St. Lucie Inlet, South Jetty Rehabilitation, APE

Figure 2: Close up view of the St. Lucie South Jetty Head

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207

July 30, 2025

Planning and Policy Division
Environmental Branch

Mr. David Frank
Tribal Historic Preservation Officer
Thlopthlocco Tribal Town
P.O. Box 188
Okemah, Oklahoma 74447

Subject: St Lucie Inlet South Jetty Rehabilitation, Martin County, Florida

Dear Mr. Frank:

The U.S. Army Corps of Engineers, Jacksonville District (Corps) is studying the environmental effects associated with proposed rehabilitation efforts for the south jetty of St. Lucie Inlet in Martin County, Florida. The south jetty is located at 27.1637303 Latitude and -80.1597694 Longitude (see Figure 1). The existing south jetty construction was completed in 1982 by the Corps, at an approximate length of just over 1,300 feet. The current work is focused on repairing the jetty (see Figure 2).

Pursuant to Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108) and its implementing regulations (36 C.F.R. § 800.16(y)), the rehabilitation of the jetty constitutes an undertaking and the existing easement and associated staging and access areas represent the area of potential effects (APE). The Corps is initiating Section 106 consultation with your office. The Corps values your input and welcomes input about study objectives and information about cultural resources and important features within the study area. Should you have comments at this stage, please respond in writing within 30 days of receipt of this letter to Dr. Zuzana Chovanec, Archeologist at 904-232-2176 or by email at Zuzana.Chovanec@usace.army.mil within 30 days of the date of this letter.

Sincerely,

Meredith A. Moreno, M.A., RPA
Cultural Resources Chief
Deputy, Environmental Branch

Enclosure(s)

cc:

Mr. David Frank, Tribal Historic Preservation Officer, thpo@tttown.org

Figure 1: St. Lucie Inlet, South Jetty Rehabilitation, APE

Figure 2: Close up view of the St. Lucie South Jetty Head

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207

August ##, 2026

Mr. Dennis Klemm
Assistant Regional Administrator for Protected Resources
National Marine Fisheries Service, Southeast Regional Office
263 13th Avenue South
Saint Petersburg, Florida 33701
Re: Request for Initiation of Expedited Informal Consultation under section 7(a)(2) of the Endangered Species Act for St. Lucie Inlet South Jetty Rehabilitation in Martin County, Florida project.

Dear Mr. Klemm:

The U.S. Army Corps of Engineers, Jacksonville District (Corps) proposes to carry out the St. Lucie Inlet South Jetty Rehabilitation project (project) as described below. We request initiation of informal consultation under section 7(a)(2) of the Endangered Species Act (ESA) for the project. We have determined that the proposed activity may affect, but is not likely to adversely affect, the ESA-listed species and critical habitat included in the table(s) below. Our supporting analysis is provided below. We request your written concurrence with our determinations.

Pursuant to our request for expedited informal consultation, we are providing, enclosing, or otherwise identifying the following information:

- A description of the action to be considered;
- A description of the action area;
- A description of any listed species or critical habitat that may be affected by the action; and
- An analysis of the potential routes of effect on any listed species or critical habitat.

Proposed Action

This proposed project is intended to reduce the risk of damages from waves, erosion, and storm surge to the St. Lucie Inlet Preserve State Park and to reduce the risks to navigation from shoaling of the federal channel and inlet. We expect work to commence in winter 2027, and extend through winter 2029. The 2020 South Atlantic Regional Biological Opinion for Dredging and Material Placement Activities in the Southeast United States (2020 SARBO) does not address jetty repair or rehabilitation, nor does it include consideration of the queen conch.

The Corps is developing a draft EA, which will be available for review on the Corps' Environmental website: https://www.saj.usace.army.mil/About/Divisions-Offices/Planning/Environmental-Branch/Environmental-Documents/. (Click "+Martin County" and scroll to the project name.) The project and project area are located at the northern tip of Jupiter Island, just south of the St. Lucie Inlet, along the St. Lucie Inlet Preserve State Park at the

south jetty. The proposed project will rehabilitate the seaward 400-500 feet of the jetty head, including excavation of material below the existing seafloor in order to place a marine mattress, expanding the jetty footprint by approximately 80 feet in total. Details on the proposed project are described in Chapter 3 of the draft EA.

Rehabilitation will consist of:

- 9-to-15-ton granite armor stone
- 1600 to 3200 pounds core stone
- 1.5 to 4 inch fill stone encased in geotextile, creating an approximately 1-foot-thick mattress
- Excavation to depths no greater than 15 feet below existing seafloor

ESA Section 7 consultation has not been completed for the existing south jetty structure as the project was authorized prior to the establishment of the ESA and NEPA. As such, the proposed project has not been covered by prior consultations nor is it eligible for coverage by the 2020 SARBO as jetty repair/rehabilitation is not included within the actions described in the 2020 SARBO.

Pre- and Post-Construction Physical Monitoring

Physical monitoring via bathymetric surveys for both the beach and jetty structure will be conducted prior to construction to determine a baseline, immediately after construction, and at fixed intervals (likely annually) after construction for a period of years. The surveys will be used to monitor the condition of the structures and determine their effects on the adjacent shoreline. If the effect is not as desired, then the structures may be modified. The Corps will notify NMFS of any modifications to determine if re-initiation of ESA consultation is necessary. The specific criteria for success and failure of the structure is expected to include beach shoreline and volume change within the structure field and along the downdrift beach.

Coastal Structure Design

Rehabilitation will focus on the seaward head of the south jetty, the seaward-most 400 to 500-ft, by restabilizing the structure foundation and placing a second layer of large armor stone, bringing the structure up to current design standards per Engineer Manual (EM) 1110-2-1100 Coastal Engineering Manual, 2011. Armor stone would be 9-to-15-ton granite, and existing stones within the jetty footprint would be reused whenever practicable. Additional core stone that is not able to be recycled from within the existing footprint will be brought in as needed and would weigh between 1600 and 3200 pounds. The marine mattress will be comprised of fill stone between 1.5 and 4 inches in size that is enveloped in geotextile, creating an approximately 1-foot-thick mattress. To place the mattress, the existing stone will need to be removed and the sandy bottom will be excavated to depths no greater than 15 feet from the existing seafloor. Placement of the marine mattress will expand the footprint of the jetty by approximately 80 feet in total in order to provide a more stable base for the structure. Once the mattress is placed, the core will be constructed using existing and new stone as necessary, with 2 layers of armor stone placement following the core construction. Design plans are demonstrated in Attachment 1, Figures 3 through 8.

Construction methodology expected:
Structure construction activities are expected to be conducted primarily from the land and with the use of a crane trestle, shallow-draft barge, cofferdam, and/or land-based heavy equipment. Construction methodology will be determined as preferred by the Contractor, though requests for information from construction contractors have indicated the use of a cofferdam is the most likely option based on water depths, wave energy, limited land available for staging and access, and materials to be brought in for rehabilitation. The NFS is responsible for providing staging/access and the beachside areas needed, and these areas have been identified through collaboration and coordination with USFWS, FDEP, and the State Park. Additional off-beach staging may be required or the stockpiling of stone and assembly of marine mattresses. The Corps' construction contract requires pre-project documentation and post-construction restoration of all staging/access areas to their pre-project condition. Rehabilitation would occur during daylight hours only and following beach nourishment being completed by Martin County.

- Cofferdam(s) may be used by the contractor in order to complete rehabilitation
    - This may include pile driving of sheet pile or similar material to create a temporary barrier between the ocean and the construction zone
    - Approximately 2.5 acres is expected to be contained within the cofferdam, if utilized by the contractor
    - If cofferdam is utilized, it is expected to be in-water from winter 2027 through winter 2029, dependent upon construction progress and contractor plans
- Trestle may be used by the contractor in order to complete rehabilitation
    - This may include pile driving of sheet pile or similar material to create a trestle bridge along the northern side of the jetty to use heavy equipment and bring in materials (see Table 1)
    - Use of trestle is expected to require less area if utilized by the contractor
    - If a trestle is utilized, it is expected to be in-water from winter 2027 through winter 2029, dependent upon construction progress and contractor plans
- Excavation is expected to be completed through use of a clamshell dredge, or land-based excavator
    - Material is expected to be less than 10,000 cubic yards (CY) of sand and rock material
    - After the marine mattress has been placed and the excavated material has been processed on-land to remove debris, the remaining sand will be replaced on top of the marine mattress.
- Stone, other construction materials, and equipment for rehabilitation may be transported to the project area by barge at the discretion of the contractor
    - If utilized, barge is expected to be anchored within the proposed staging areas, away from ESA-listed species, hardbottom, and seagrasses
- Work will be completed in daylight hours only utilizing land-based equipment and access wherever possible and practicable to limit in-water work activities
    - No dredging of a new channel, or deepening of the existing channel, will occur in order to bring in vessels for the rehabilitation effort

Table 1. Pile Installation

Pile Type and Material	*Concrete, Square*	*Wood, Round*	*Pre-cast Concrete Panels*
Pile Diameter (inches)	*24-in*	*12-in*	*NA*
Number of Piles Total	*Unknown*	*Unknown*	*Unknown*
Installation Method	*Impact*	*Vibratory*	*Jetting*
Number of Strikes per Pile (if using impact hammer) or Number of Seconds of Vibration per Pile (if using vibratory hammer)	*NA*	*NA*	*NA*
Number of Piles Installed per Day (if using impact or vibratory hammer)	*Unknown*	*Unknown*	*NA*
Duration of pile driving activity (days)	*Unknown*	*Unknown*	*Unknown*
Substrate and water depth in pile installation area	*Sand/Silt, 10 ft*	*Sand, 3 ft*	*Sand/Mud, at MHW*
Confined Space or Open Water?	*Confined Space*	*Confined Space*	*Confined Space*
Noise abatement used	*Nylon cushion block*	*None*	*None*

Conservation Measures and BMPs

The Corps will conduct the excavation of the sandy bed in compliance with the 2020 SARBO by adhering to the pertinent PDCs. The Corps will include applicable reasonable and prudent measures (RPMs) and terms and conditions (T&Cs) of the 2020 SARBO in the project plans and specifications to ensure protection of the species during construction activities. The Corps will also implement the Protected Species Construction Conditions NOAA Fisheries Southeast Regional Office[1] (NMFS May 2021).

The Corps will include the following minimization measures in its construction contracts:

a. All construction personnel associated with the project will be instructed of the potential presence of endangered species and the need to avoid collisions with them. All construction personnel are responsible for observing water-related activities for the presence of sea turtles.

b. All construction personnel will be advised that there are civil and criminal penalties for harming, harassing, or killing listed species or marine mammals.

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

1

d. Operations of moving equipment will cease if a protected species is observed within 150 feet of operations. Activities will not resume until the protected species has departed the project area of its own volition (e.g., species was observed departing or 20 minutes have passed since the animal was last seen in the area

e. Turbidity curtains, if used, will be made of material in which protected species cannot become entangled and be regularly monitored to avoid protected species entrapment. All turbidity curtains and other in-water equipment will be properly secured with materials that reduce the risk of protected species entanglement and entrapment..

f. Any collision with and/or injury to a sawfish or sea turtle will be reported immediately to the National Marine Fisheries Service's Protected Resources Division and the local authorized sea turtle stranding/rescue organization.

Any interaction with a protected species will be reported immediately to NOAA Fisheries SERO PRD and the local authorized stranding/rescue organization. To report to NOAA Fisheries SERO PRD, send an email to takereport.nmfsser@noaa.gov. Please include the species involved, the circumstances of the interaction, the fate and disposition of the species involved, photos (if available), and contact information for the person who can provide additional details if requested. Please include the project's Environmental Consultation Organizer (ECO) number and project title in the subject line of email reports. To report the interaction to the local stranding/rescue organization, please see the following website for the most up to date information for reporting sick, injured, or dead protected species: Reporting Violations–To report an ESA or MMPA violation, call the NOAA Fisheries Enforcement Hotline. This hotline is available 24 hours a day, 7 days week for anyone in the United States. NOAA Fisheries Enforcement Hotline (800) 853-1964

Vessels–For projects requiring vessels, the action agency, and any permittee will ensure conditions in the Vessel Strike Avoidance Measures are implemented as part of the project/permit issuance (https://www.fisheries.noaa.gov/southeast/consultations/regulations-policies-andguidance).

g. Water quality (turbidity) will be monitored at the construction sites in compliance with the requirements of the 401 Water Quality Certification obtained from FDEP. If turbidity values at the construction site exceed State Water Quality Standard for turbidity (29 NTU above background per 62-302, F.A.C.) at the edge of the permitted mixing zone (150 meters), construction activities will be suspended and will not continue until water quality meets state standards.

i. This project is substantially similar to the existing BEC&HP work, and USACE will conduct the beach nourishment and dredging of sand borrow areas in compliance with the SARBO by adhering to the pertinent PDCs.

j. USACE will implement NMFS' 2021 Protected Species Construction Conditions.

k. Jetty rehabilitation will occur during daylight hours.

Description of the Action Area

The *action area* is all areas to be affected by the Federal action and not merely the immediate area involved in the action (50 CFR 402.02). *Effects of the action* are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. The action area is distinct from and can be larger than the project footprint because some elements of the project may affect listed species or critical habitat some distance from the project footprint. The action area, therefore, extends out to a point where no effects from the project are expected to occur.

For this project, the action area includes selected staging, access, and construction areas within approximately 85 acres at the northern tip of Jupiter Island, within the St. Lucie Inlet Preserve State Park, north of Hobe Sound National Wildlife Refuge. The project area is just south of St. Lucie Inlet and includes the Atlantic Ocean and St. Lucie River channel as it extends through the inlet. The easternmost point of the action area lies at approximately latitude 27.163039N, longitude 80.157024W and the westernmost point lies at approximately latitude 27.163724N, longitude 80.173327W. The action area lies just north of FDEP range monument R-45. See Attachment 1, Figures 1 and 2 for approximate layout of the action area.

Area affected by pile driving and construction associated noise:

- Limited to area adjacent to construction area.
- Area includes extent of jetty, cofferdam or trestle bridge (if utilized), and adjacent body of water.

Area affected by vessel traffic:

- Support vessels (tugs, transport, etc.).
- Shallow-draft barge (if utilized).

Habitat within the action area:

- The rehabilitated jetty structure will not extend into hardbottom, nor will cofferdam or trestle bridge (if utilized).
- Nearshore soft bottom (or surf zone) comprises sedimentary habitat within the shoreline project area.
- Softbottom along the project shoreline is the spatially dominant feature in the nearshore.
- Seagrasses are extremely limited within the action area and will be avoided during construction activities.

Water quality varies seasonally due to changes in winds, tides, and currents, as well as storms which may, among other effects, suspend large quantities of sand, particularly in the nearshore environment.

Salinity in the project area is relatively consistent at marine levels but may temporarily fall due to freshwater discharges from St. Lucie River, particularly during the summer rainy season.

General water depths within the action area are below 5 feet, and there are mangroves on the landward side of the jetty structure further along the trunk of the jetty, towards the west.

Potentially Affected NMFS ESA-Listed Species and Critical Habitat

The Corps has assessed the listed species that may be present in the action area and the Corps' determination of the project's potential effects to species is shown in Table **2** below.

Please note abbreviations used in **Table *2***: E = endangered; T = threatened; NLAA = may affect, not likely to adversely affect; NE = no effect; N/A = not applicable

Table 2. ESA-listed Species in the Action Area and Effect Determination(s)

Species	ESA Listing Status	Listing Rule/Date	Most Recent Recovery Plan/Outline Date	Effect Determination (Species)
Sea Turtles				
Green (North Atlantic [NA] distinct population segment [DPS])	T	81 FR 20057/ April 6, 2016	October 1991	NLAA
Green (South Atlantic [SA] DPS)	T	81 FR 20057/ April 6, 2016	October 1991	NLAA
Kemp's ridley	E	35 FR 18319/ December 2, 1970	September 2011	NLAA
Leatherback	E	35 FR 8491/ June 2, 1970	April 1992	NLAA
Loggerhead (Northwest Atlantic [NWA] DPS)	T	76 FR 58868/ September 22, 2011	December 2008	NLAA
Hawksbill	E	35 FR 8491/ June 2, 1970	December 1993	NLAA
Fish				
Smalltooth sawfish (U.S. DPS)	E	68 FR 15674/ April 1, 2003	January 2009	NLAA
Mollusks				
Queen Conch (*Aliger gigas*)	T	89 FR 11208/ February 14, 2024	N/A	NLAA

We have assessed the critical habitats that overlap with the action area and our determination of the project's potential effects to them as shown in Table **3** below.

Please note abbreviations used in Table **3**: NLAA = may affect, not likely to adversely affect; NE = no effect

Table 3. Critical Habitat(s) in the Action Area and Effect Determination(s)

Species	Critical Habitat in the Action Area	Critical Habitat Rule/Date	Effect Determination (Critical Habitat)
Sea Turtles			
Loggerhead sea turtle (Northwest Atlantic Ocean DPS)	LOGG-N-18 Reproductive and Migratory	79 FR 39856/ July 10, 2014	NLAA

During the February 26, 2026 interagency site visit, NMFS and the Corps discussed potential presence of ESA-listed corals and their DCH. Since the site visit, the Corps has further reviewed the location of hardbottoms and potential for presence of corals. The closest hardbottom habitat (and mountainous star coral DCH) lies at least 2,000 feet outside of the expanded jetty footprint and nearshore areas. It is not expected to be affected by rehabilitation activities; however, the Corps will include that no anchoring or spudding within hardbottom habitat will be permitted in the project specifications. Multiple surveys (e.g., queen conch, seagrass, hardbottom, etc.) have not documented presence of ESA-listed corals; however, the Corps will conduct pre-construction surveys to confirm there are no individuals on the jetty structure and within the area of construction. If ESA-listed corals are located, the Corps will coordinate with NMFS to determine if collection/relocations are needed.

Effects of the Action

ROUTE(S) OF EFFECT TO ESA-LISTED SPECIES:

Rehabilitation of the jetty will occur primarily from land using heavy equipment for the placement of the large stones within the new design template for the jetty, plus approximately 80 feet in expanded footprint for the placement of new marine mattress. Swimming sea turtles could be present in the project vicinity at any time for foraging, breeding, migrating, etc. Effects to sea turtles include risk of injury from interaction with heavy equipment or support vessels during construction, as well as avoidance of construction areas due to increased activity and related noise or vibrations. If a cofferdam or trestle bridge is utilized for construction, presence of the temporary structure may cause confusion or act as a deterrent for female turtles on their way to the shoreline for nesting and/or they may become an obstacle for hatchlings. Construction of the temporary trestle bridge or cofferdam may also present risk of injury from interaction with heavy equipment, construction materials, and support vessels, as well as avoidance of construction areas due to noise and vibrations. The Corps determined these effects to be insignificant as direct, physical injury is not anticipated since sea turtles are highly mobile and able to easily avoid the area. Implementation of NMFS' 2021 Protected Species Construction Conditions will also minimize risk of impacts to the species.

Smalltooth sawfish are being recorded via acoustic tag data and verified public reports in their historic nursery range in limited portion of the Indian River Lagoon and St. Lucie River, and

they are therefore potentially may occur within the range of the project and could interact with construction equipment. However, these are highly mobile species that are able to easily avoid the area and injury is not anticipated. Implementation of NMFS' 2021 Protected Species Construction Conditions will also minimize risk of impacts to the species.

In a survey completed in 2024, queen conch were recorded on the northside of the inlet within and around the St. Lucie Inlet Impoundment Basin and north jetty. Per discussions during the February 26, 2026 interagency site visit, NMFS confirmed that due to high wave energy in the inlet, especially around the south jetty, queen conch are not expected to be present within the construction area. As queen conch are not highly mobile, avoidance of the area is unlikely, pre-construction surveys will be completed to identify any individuals within the area. If queen conch are found, the individuals will be relocated prior to the start of work.

ROUTES OF EFFECT TO CRITICAL HABITAT

The project is also located within the boundary of Designated Critical Habitat (DCH) for loggerhead sea turtles (LOGG-N-18) and more than 2000 feet from mountainous star coral (Florida area, OFAV-1). The final ruling for DCH states the following:

> *"This unit contains nearshore reproductive habitat and constricted migratory habitat. The unit contains a portion of the Florida constricted migratory corridor, which is located in the nearshore waters from the MHW line to the 30 m depth contour off Floridana Beach to the Martin County/Palm Beach County line. This overlaps with two nearshore reproductive habitat areas. The first nearshore reproductive area includes nearshore areas from Floridana Beach to the south end of Indian River Shores (crossing Sebastian Inlet) from the MHW line seaward1.6 km. The second nearshore reproductive habitat area includes nearshore areas from Fort Pierce inlet to Martin County/Palm Beach County line (crossing St. Lucie Inlet) from the MHW line seaward 1.6 km."*

The south jetty is an existing permanent feature in the project area that creates a physical barrier in the water. Rehabilitation of the jetty will extend the physical structure footprint by an additional 80 feet. This DCH is nearshore reproductive critical habitat and constricted migratory habitat. The Primary Constituent Elements (PCE) in LOGG-N-18 which could be affected by the proposed rehabilitated structure are described below:

PCEs of nearshore reproductive habitat:

> *(1) Nearshore waters directly off the highest density nesting beaches and their adjacent beaches as identified in 50 CFR 17.95(c) to 1.6 km (1 mile) offshore;*
>
> *(2) Waters sufficiently free of obstructions or artificial lighting to allow transit through the surf zone and outward toward open water; and*
>
> *(3) Waters with minimal manmade structures that could promote predators (i.e., nearshore predator concentration caused by submerged and emergent offshore*

structures), disrupt wave patterns necessary for orientation, and/or create excessive longshore currents.

PCEs of constricted migratory habitat:

(1) Constricted continental shelf area relative to nearby continental shelf waters that concentrate migratory pathways; and

(2) Passage conditions to allow for migration to and from nesting, breeding, and/or foraging areas.

While rehabilitation of the structure increases the physical footprint, the Corps does not believe the essential features will be substantively affected by the proposed action. Three species of sea turtles, the loggerheads, greens, and leatherbacks, are known to nest on Martin County beaches. Female sea turtles will rely on nearshore waters off nesting beaches to rest and to transit between the beach and open water, as well as movement up and down (i.e., parallel to) the shoreline. Inclusion of the jetty in close proximity to nesting beaches (e.g., in or near the surf zone) to mitigate erosion and shoaling of the inlet could prevent transit to/from the beach by nesting female sea turtles. However, the Corps determined that impacts to these habitat functions will be extremely unlikely to occur given the availability of refuge and forage habitat in the adjacent areas and limited in-water footprint. Should design change or construction necessitate design changes, the Corps will notify NMFS of any modifications to determine if re-initiation of ESA consultation is necessary.

Conclusion

The Corps has reviewed the proposed project for its effects to ESA-listed species and their critical habitat. Based on the analysis above, we have determined that the rehabilitation of the St. Lucie Inlet South Jetty including the expansion of the jetty footprint for placement of the marine mattress in Martin County, Florida is not likely to adversely affect any listed species or critical habitat under NMFS's jurisdiction. We have used the best scientific and commercial data available to complete this analysis. We request your concurrence with this determination.

Sincerely,

Gretchen S. Ehlinger, Ph.D.
Chief, Coastal and Navigation
Environmental Branch

Literature Cited

National Marine Fisheries Service (NMFS). 2021. Protected Species Construction Conditions, NOAA Fisheries Southeast Regional Office. https://media.fisheries.noaa.gov/2021-06/Protected_Species_Construction_Conditions_1.pdf. Website accessed 28 May 2026.

National Marine Fisheries Service (NMFS). 2020. South Atlantic Regional Biological Opinion for Dredging and Material Placement Activities in the Southeast United States (SARBO). NOAA Fisheries Southeast Regional Office. https://media.fisheries.noaa.gov/dam-migration/sarbo_acoustic_revision_6-2020-opinion_final.pdf. Website accessed 28 May 2026.

National Marine Fisheries Service (NMFS). "Endangered and Threatened Species: Critical Habitat for the Northwest Atlantic Ocean Loggerhead Sea Turtle Distinct Population Segment (DPS) and Determination Regarding Critical Habitat for the North Pacific Ocean Loggerhead DPS." *Federal Register*, 10 July 2014, www.federalregister.gov/documents/2014/07/10/2014-15748/endangered-and-threatened-species-critical-habitat-for-the-northwest-atlantic-ocean-loggerhead-sea#h-32. Accessed 28 May 2026.

Attachment 1

Figure 1: Overview of action area at northern tip of Jupiter Island within St. Lucie Inlet Preserve State Park just south of St. Lucie Inlet

Figure 2: Close Up overview of action area at northern tip of Jupiter Island within St. Lucie Inlet Preserve State Park, just south of St. Lucie Inlet and just north of FDEP range monument R-45

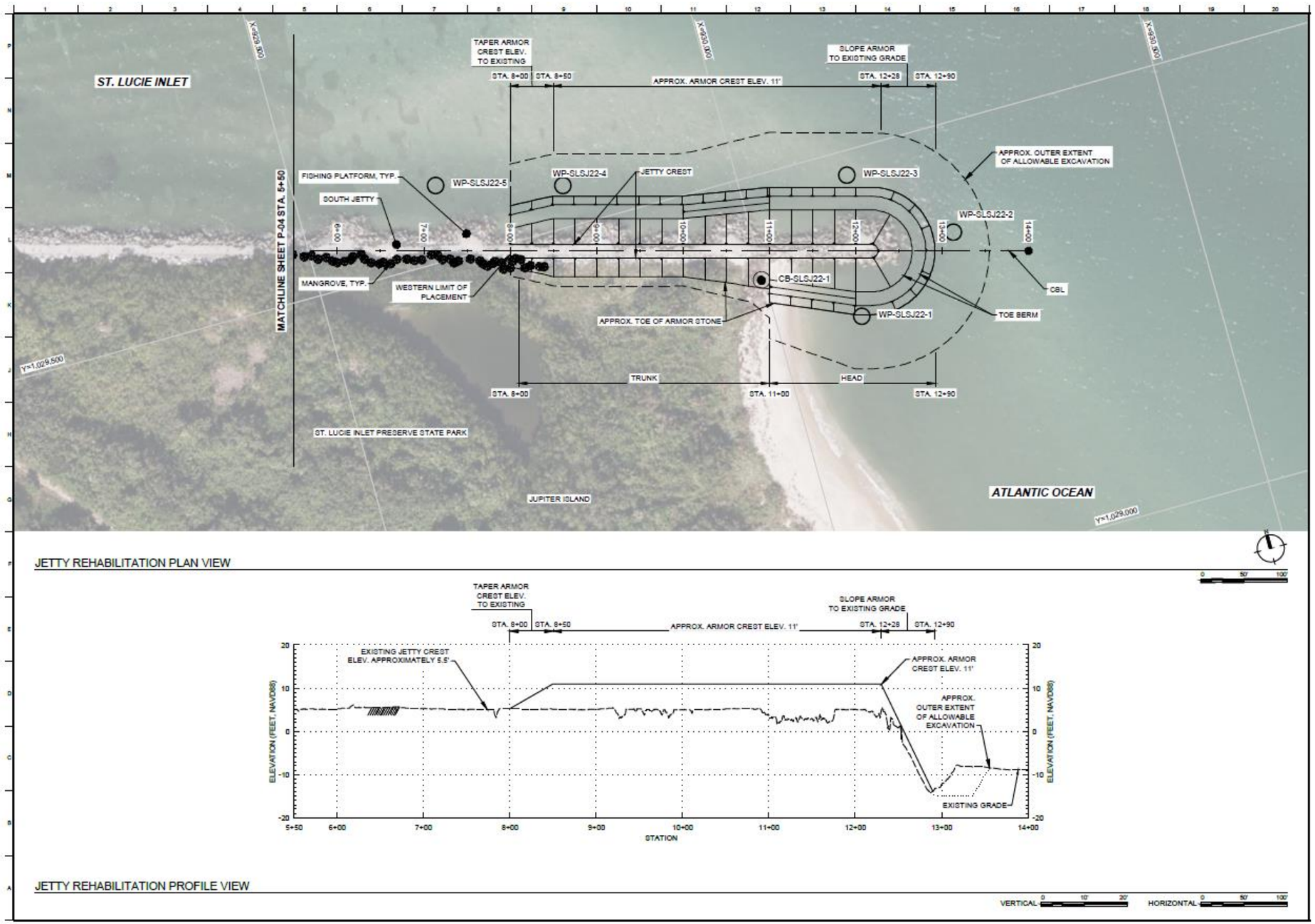

Figure 3: Jetty head rehabilitation plan showing approximate outer extent of excavation and armor stone placement

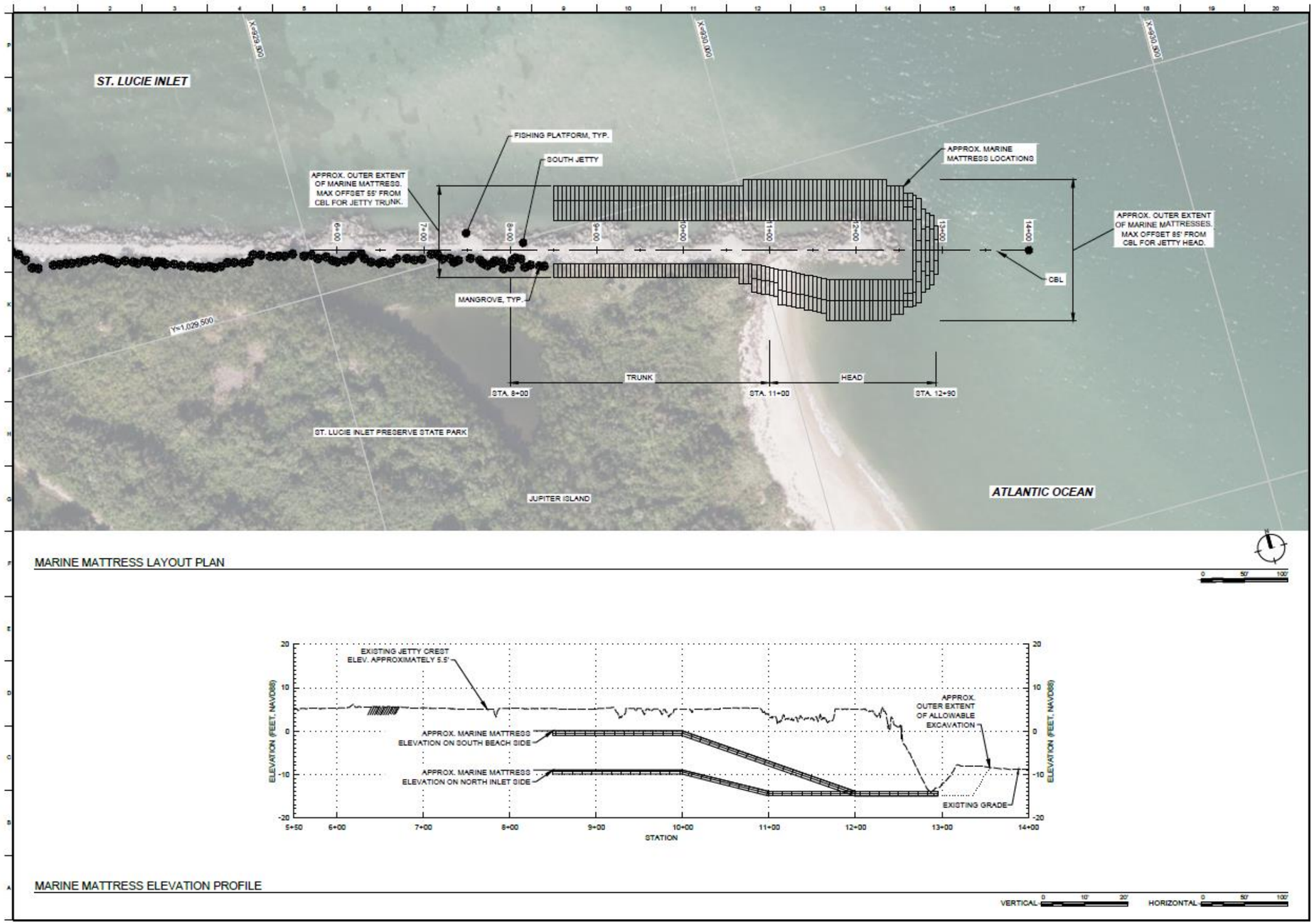

Figure 4: Marine mattress layout plan showing approximate locations and outer extent of mattress

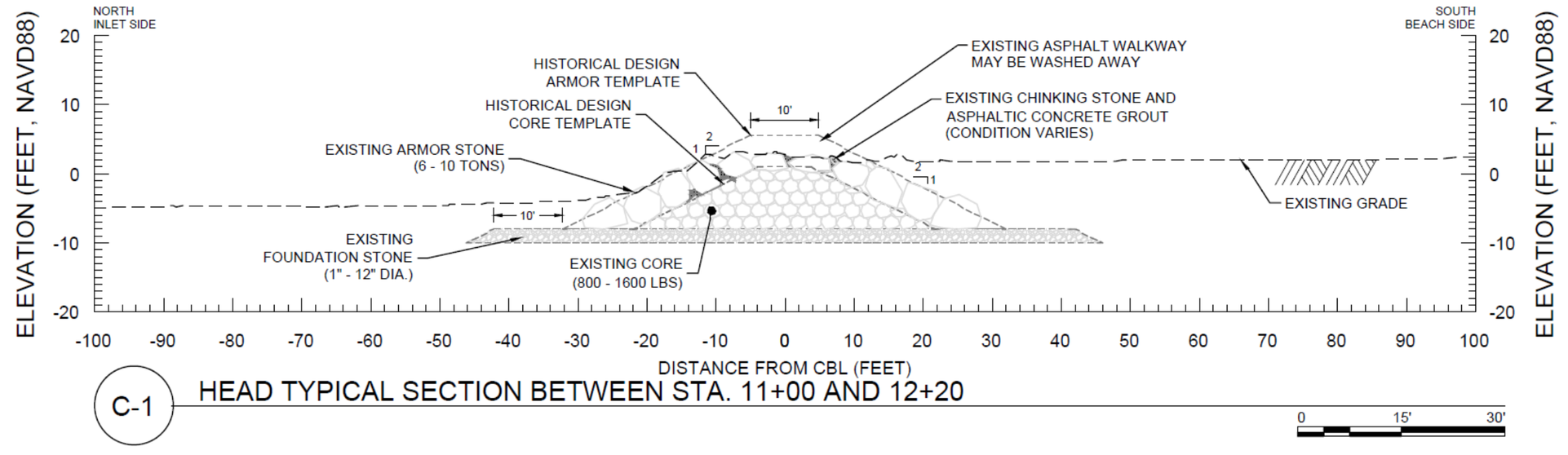

Figure 5: Proposed design of jetty head rehabilitation compared to the historical design template of the existing jetty, indicating the additional height and width of the rehabilitated structure due to the addition of the second layer of armor stone.

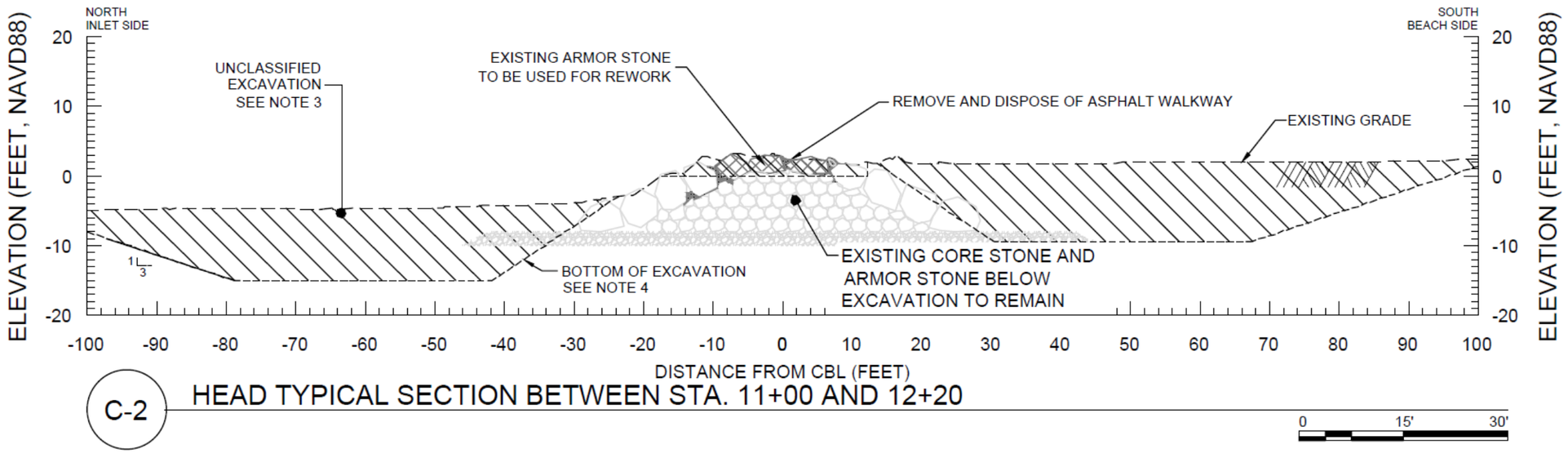

Figure 6: Proposed design of the jetty head rehabilitation excavation effort required to place the marine mattress for the rehabilitated structure.

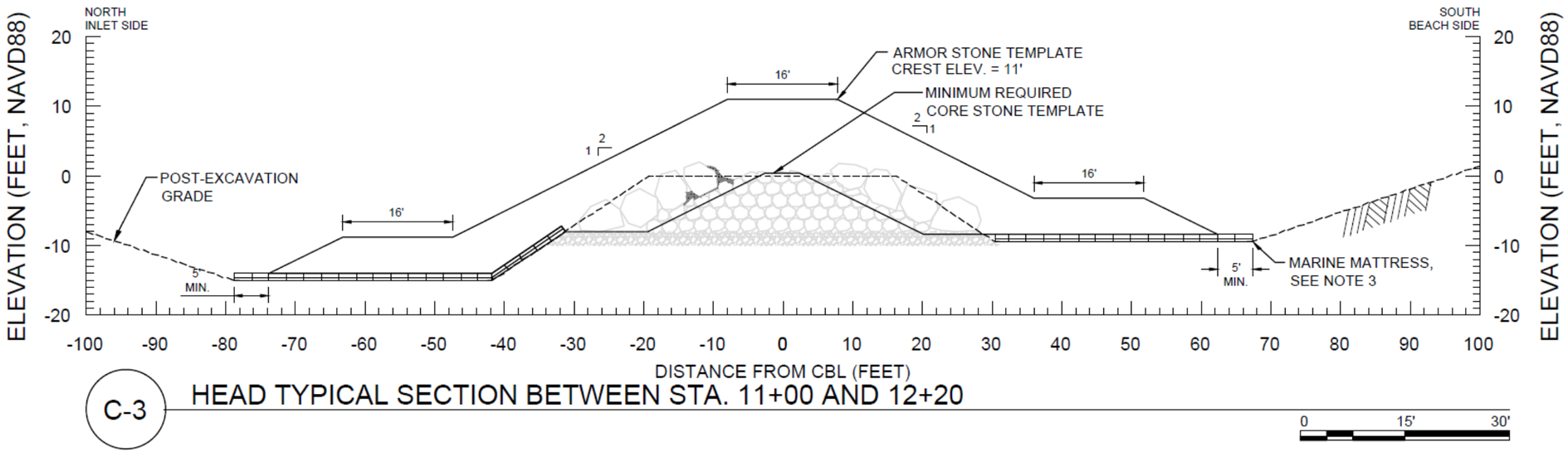

Figure 7: Proposed design of the jetty rehabilitation showing the height, width, slope, and elevation of the structure. The new design expands the footprint of the structure by approximately 80ft in total.

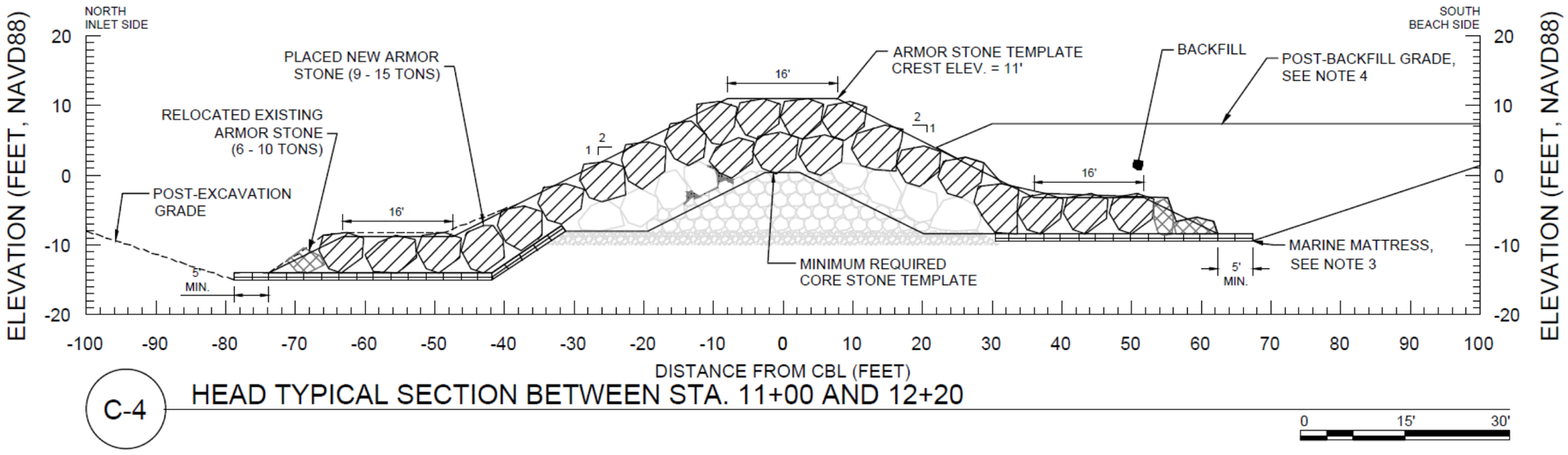

Figure 8: Proposed design of the jetty rehabilitation showing the placement of armor stones, backfill of sand, and marine mattress.

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207

August ##, 2026

Dr. Pace Wilber
Assistant Regional Administrator for Habitat Conservation Division
Atlantic and Caribbean Branch Chief
National Marine Fisheries Service, Southeast Regional Office
263 13th Ave South
Saint Petersburg, Florida 33701

Dear Dr. Wilber,

Pursuant to the National Environmental Policy Act of 1969, as amended (NEPA), and the U.S. Army Corps of Engineers, Jacksonville District (Corps) Regulation (33 CFR 230), this letter constitutes the Notice of Availability of the Environmental Assessment (EA), proposed Finding of No Significant Impact (FONSI), and associated appendices for the St. Lucie Inlet South Jetty Rehabilitation (NEPA ID: EAXX-202-00-K3P-1742397469). The purpose of this project is to address degradation to the existing jetty structure via rehabilitation to maintain safe and efficient navigation throughout the federal channel and inlet.

In addition, the Corps is initiating coordination with the National Marine Fisheries Service (NMFS) under the Essential Fish Habitat (EFH) provisions of the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA). Per the 2019 Findings between NMFS' Southeast Regional Office and South Atlantic Division Corps, the EFH assessment for the project was integrated within the draft EA. Per 50 CFR 600.920(e)(3), an EFH assessment must include specific items. Each item will be addressed in the table below with a reference to where the information is located in the EA.

EFH Required Item	**EA Location(s)**
Description of the Proposed Action	What is the action? - *Section 1 Introduction* - *Section 3 Alternatives* - *Section 5 Preferred Alternative* What is the purpose of the action? - *Section 1.4 Purpose and Need* How, when, and where will it be undertaken? - *Section 1 Introduction* - *Section 1.2 Project Location* - *Section 3 Alternatives*

	What will be the result of the action? - *Section 4 Environmental Effects* - *Section 5 Preferred Alternative*
Analysis of the potential adverse effects (individual and cumulative) of the action on EFH and the managed species	What EFH will be affected by the action? - *Section 2.4 Essential Fish Habitat* - *Section 4.4 Essential Fish Habitat* What are the adverse effects to EFH that could occur as a result of this action? - *Section 4.4 Essential Fish Habitat* - *Appendix G, Section 6.2.18 MSFCMA* How would they impact managed species? - *Section 4.4 Essential Fish Habitat* What would be the magnitude of effects? - *Section 4.4 Essential Fish Habitat* What would the duration be? - *Section 3 Alternatives* - *Section 4.4 Essential Fish Habitat*
The Federal agency's conclusions regarding the effects of the action on EFH	- *Section 4.4 Essential Fish Habitat* - *Appendix G, Section 6.2.18 MSFCMA*
Proposed Compensatory Mitigation	*N/A*
Avoidance and Minimization	*N/A*

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 EA:

EFH Additional Information Item	**Draft EA Location(s)**
Results of on-site studies to evaluate the habitat and/or site-specific effects of the project	- *Section 4.4 Essential Fish Habitat*
Review of pertinent literature and related information	- *Literature cited throughout the draft EA*

The Corps has determined that the potential effects of the Preferred Alternative may have temporary adverse impacts to EFH and no adverse effects on federally managed fish species. The magnitude of the potential impacts is minor and insignificant.

Additional details on the Preferred Alternative are contained in the draft EA, which can be located at this website under Martin County: https://www.saj.usace.army.mil/About/Divisions-Offices/Planning/Environmental-Branch/Environmental-Documents/.

The Corps respectfully requests all comments under NEPA and the MSFCMA for the EA and proposed FONSI be submitted within 30 days of receipt of this letter. The Corps appreciates the collaboration and input provided by NMFS on this project. Any questions regarding this consultation should be directed to Ms. Katie Lebow, via electronic mail at Kathryn.E.Lebow@usace.army.mil or via telephone at 904-232-2030.

Sincerely,

Gretchen Ehlinger, Ph.D.
Chief, Environmental Branch

Enclosure

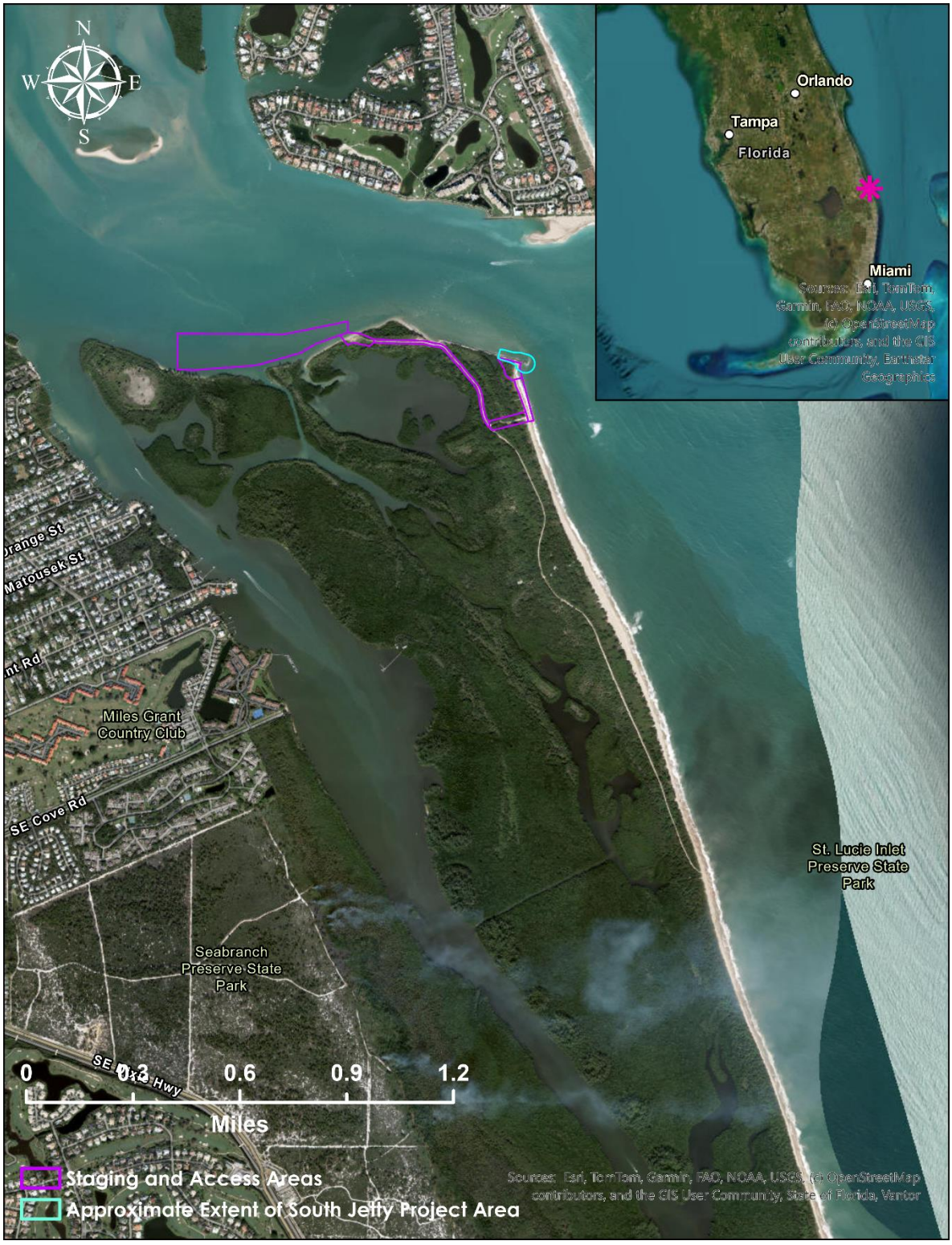

Figure 1: Preferred Alternative includes rehabilitation of the existing jetty structure with excavation to place marine mattress and expansion of the current jetty footprint.

Figure 2: Close Up Overview of Project Area

ENDANGERED SPECIES ACT

USFWS BIOLOGICAL ASSESSMENT

ST. LUCIE INLET, FLORIDA PROJECT – SOUTH JETTY REHABILITATION

ST. LUCIE INLET, MARTIN COUNTY, FLORIDA

JUNE 2026

U.S. Army Corps of Engineers
JACKSONVILLE DISTRICT

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Attachment 1: USFWS Official IPAC Species List

ST. LUCIE INLET, FLORIDA PROJECT – SOUTH JETTY REHABILITATION
ST. LUCIE INLET, MARTIN COUNTY, FLORIDA
ENDANGERED SPECIES ACT
BIOLOGICAL ASSESSMENT
JUNE 2026

1 Introduction

The purpose of a Biological Assessment (BA) is to evaluate the potential effects of a federal action on: (1) U.S. Fish and Wildlife Service's (USFWS) species listed as threatened and endangered (T&E) under the Endangered Species Act of 1973, as amended (ESA); (2) species proposed for listing, including their designated and proposed critical habitat; and (3) whether the continued existence of the species would be in jeopardy as a result of the federal action. The federal action analyzed in this BA is the rehabilitation of the south jetty at St. Lucie Inlet in Martin County, Florida. The U.S. Army Corps of Engineers, Jacksonville District (Corps), is conducting this project under Section 201 of the Flood Control Act of 1965 (Pub, L. 89-298) as amended by Section 131 of the 1976 Water Resources Development Act, in accordance with the Chief's Report as authorized by House Document Number 93-294, 93rd Congress. The non-federal sponsor (NFS) for the effort is Martin County.

1.1 Project Background and History

In the St. Lucie Inlet, there are several components of the Federal project including the north jetty, north jetty extension, an offshore breakwater, the Federal navigation channel, the St. Lucie Inlet Impoundment Basin, and the south jetty. Prior to 1974, the authorized project at the inlet consisted of a north jetty that had been constructed by local interests in 1928, and a Federal navigation channel.

Initial construction of the St. Lucie Inlet Federal project was authorized in Section 201 of the Flood Control Act of 1965 and initial construction was completed in 1982. Congress directed the Corps to construct and maintain a new south jetty with a walkway for fishermen at a length of 1,200 feet with an additional 1,200 feet for deferred construction. The existing south jetty construction was completed, at an approximate length of just over 1,300 feet with the remaining length deferred indefinitely.

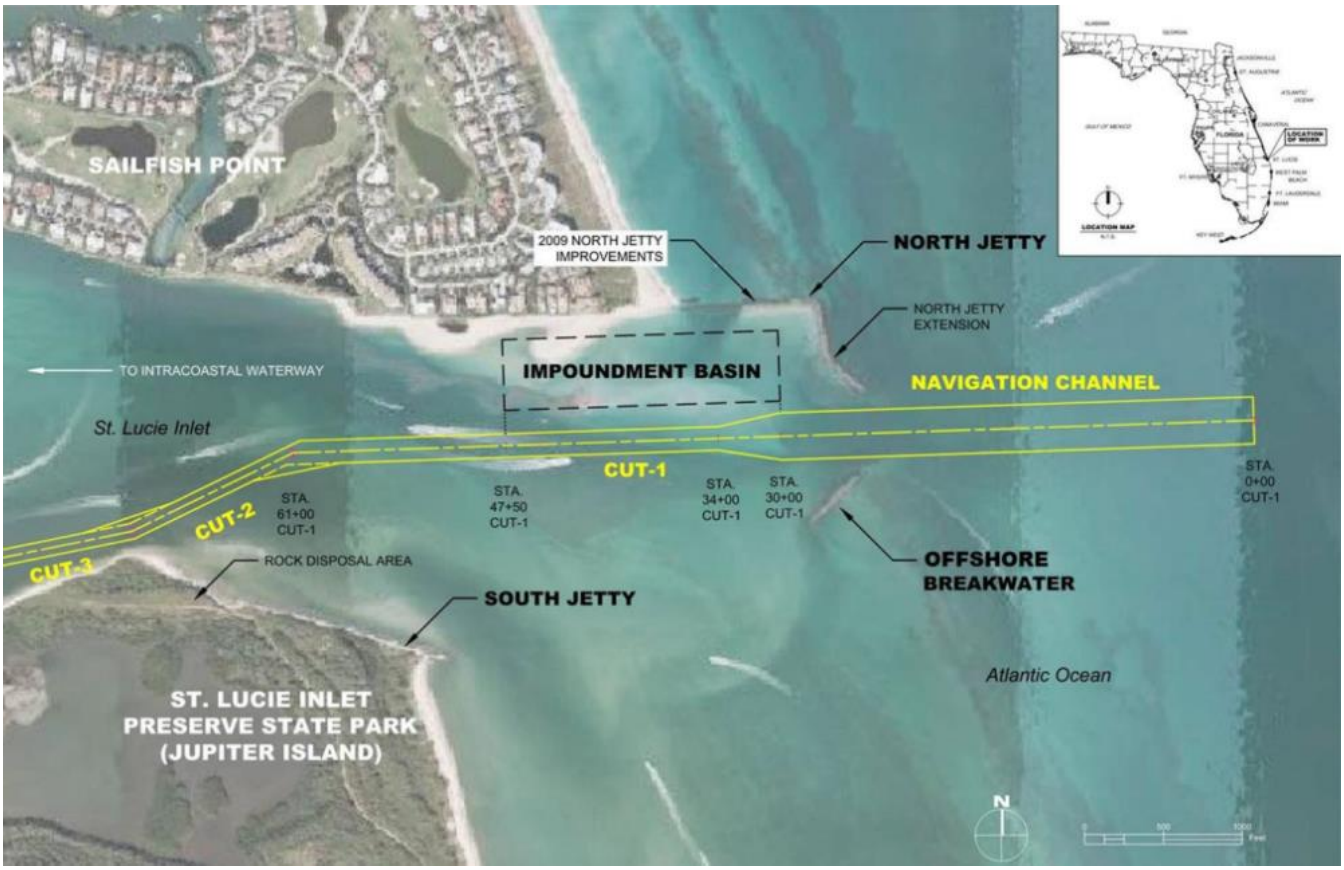

Figure 1-1: The St. Lucie Inlet, Florida, Project

1.2 Consultation History and Summary

There is no current analysis of the effects of rehabilitation of the jetty structure on the natural environment, nor was an analysis completed for the initial construction of the jetty as its original authorization pre-dates the National Environmental Policy Act (NEPA). Though initial construction of the south jetty was completed in 1982, following the enactment of the NEPA, no additional analysis or consultation was completed for the construction activity at the time. Therefore, there is no existing consultation history for the south jetty.

1.3 Purpose and Need

The purpose of the proposed action is to rehabilitate the south jetty in order to ensure it meets its mission of maintaining safe and efficient vessel navigation through the inlet, and to prevent erosion and shoaling of the inlet. This project will address navigation concerns by rehabilitating the south jetty. Details on the proposed design for the rehabilitated structure are provided in Section 2 of this BA.

2 Description of Proposed Action and Action Area

2.1 Proposed Action

The proposed project is for the rehabilitation of the seaward head of the south jetty, specifically the seaward-most 400-500 feet by restabilizing the structure foundation and reinforcing the structure by adding a second layer of large armor stone. The armor

stone would be 9-to-15-ton granite, and existing stones within the jetty footprint would be reused whenever practicable. Additional core stone will be imported as needed and will be a weigh between 1600 and 3200 pounds. Rehabilitation would extend the jetty's footprint by approximately 80 ft to provide a more stable base for the structure. Detailed construction methodology and figures are provided in section 2.3.3.

2.2 Action Area

The action area for the proposed work is the north end of St. Lucie Inlet Preserve State Park (Park) at the St. Lucie Inlet south jetty, nearby staging and access areas, and the Park beach between Florida Department of Environmental Protection (FDEP) Range (R) monuments R-44.5 and R-76. The Hobe Sound National Wildlife Refuge (Refuge) begins at approximately R-58 and extends throughout the remaining action area (see **Figure 2-1**).

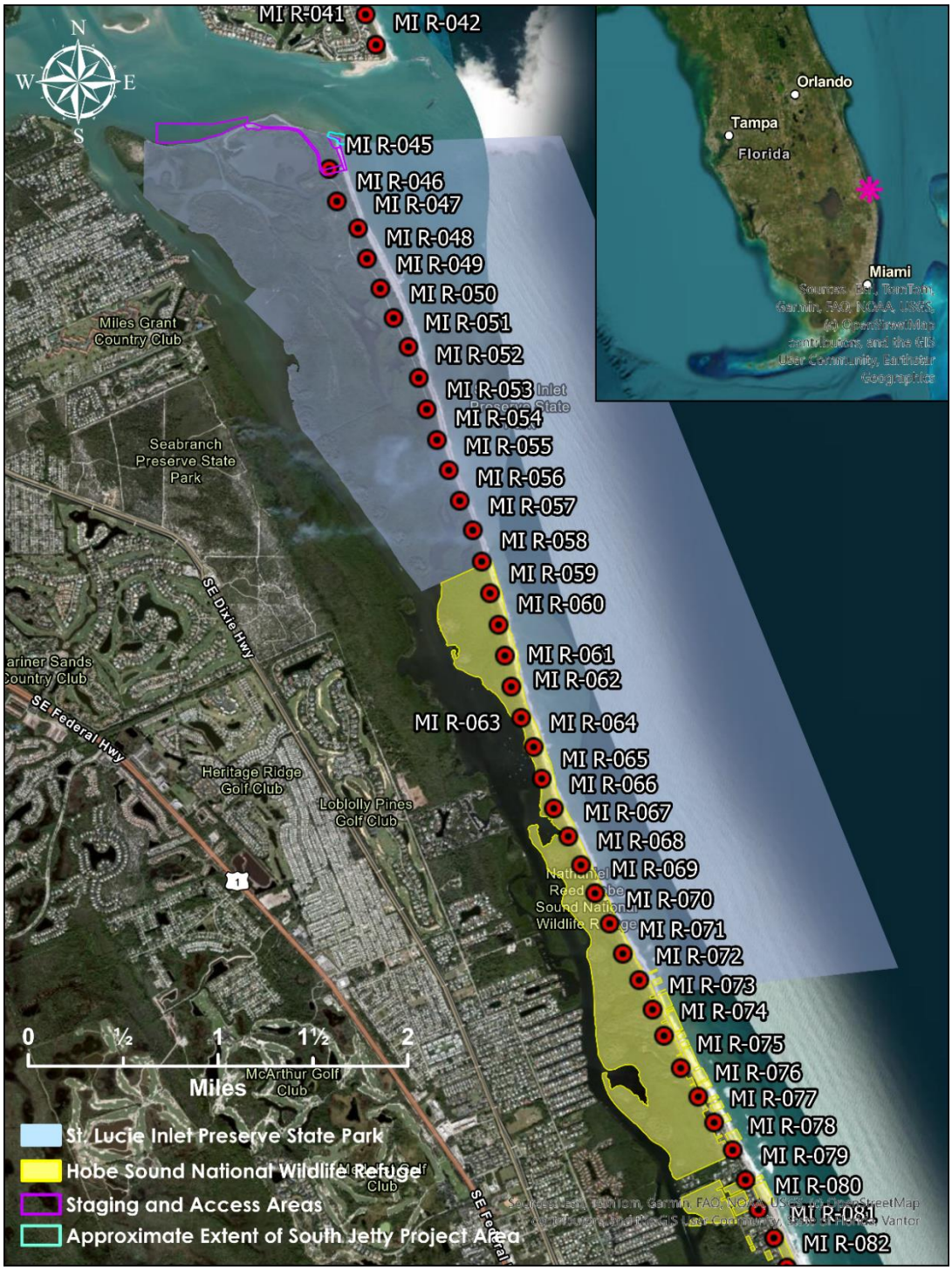

Figure 2-1: St. Lucie Inlet Preserve State Park and Hobe Sound National Wildlife Refuge

2.3 Modeling, Design, and Methodology

2.3.1 Pre-Construction Engineering and Design (PED) Modeling

The Pre-construction Engineering and Design (PED) phase was completed during the development of the February 2025 Major Maintenance Report (MMR) in order to

optimize the layout and design that will best meet the goals of the project. This biological assessment presents the maximum anticipated footprint based on the preliminary design from the 2025 MMR. Changes proposed by the Contractor may result in less impacts than what is described (e.g., amount of stone, footprint, etc.). The Corps will notify USFWS if any modifications may introduce effects which are new or greater than those analyzed in this BA to determine if re-initiation of ESA consultation is necessary.

2.3.2 Pre- and Post- Construction Physical Monitoring

Physical monitoring of the beach within the project area will be conducted prior to construction to determine a baseline, immediately after construction, and at fixed intervals (likely annually) after construction. The surveys will be used to determine if the rehabilitated structure is having the desired effect on the adjacent shoreline. If the effect is not as desired, the structure may be modified to address those concerns. The jetty structure itself is not regularly monitored; however, it is surveyed during site inspections following intense storm activity by the county if deemed necessary. The results of those surveys will be used to determine if the rehabilitated structure is in need of additional repairs or modifications. The Corps will notify USFWS of any modifications to determine if re-initiation of ESA consultation is necessary.

2.3.3 Coastal Structure Design

The proposed jetty structure consists of rubble mound armor stone on a marine mattress foundation. The proposed design includes an approximately 11’ armor crest elevation NAVD83, with a 10 foot wide jetty top. Armor stones will slope down to the sea bottom on a 2H:1V slope. The proposed marine mattress will expand the footprint of the jetty by approximately 80 feet in total in order to provide a more stable base for the structure. Two layers of armor stone will be placed in order to comply with current engineering design standards for jetties. Typical plan and cross sectional views are provided in ***Figure* 2-2, *Figure* 2-3, *Figure* 2-4, *Figure* 2-5, *Figure* 2-6**, and ***Figure 2-7*** below.

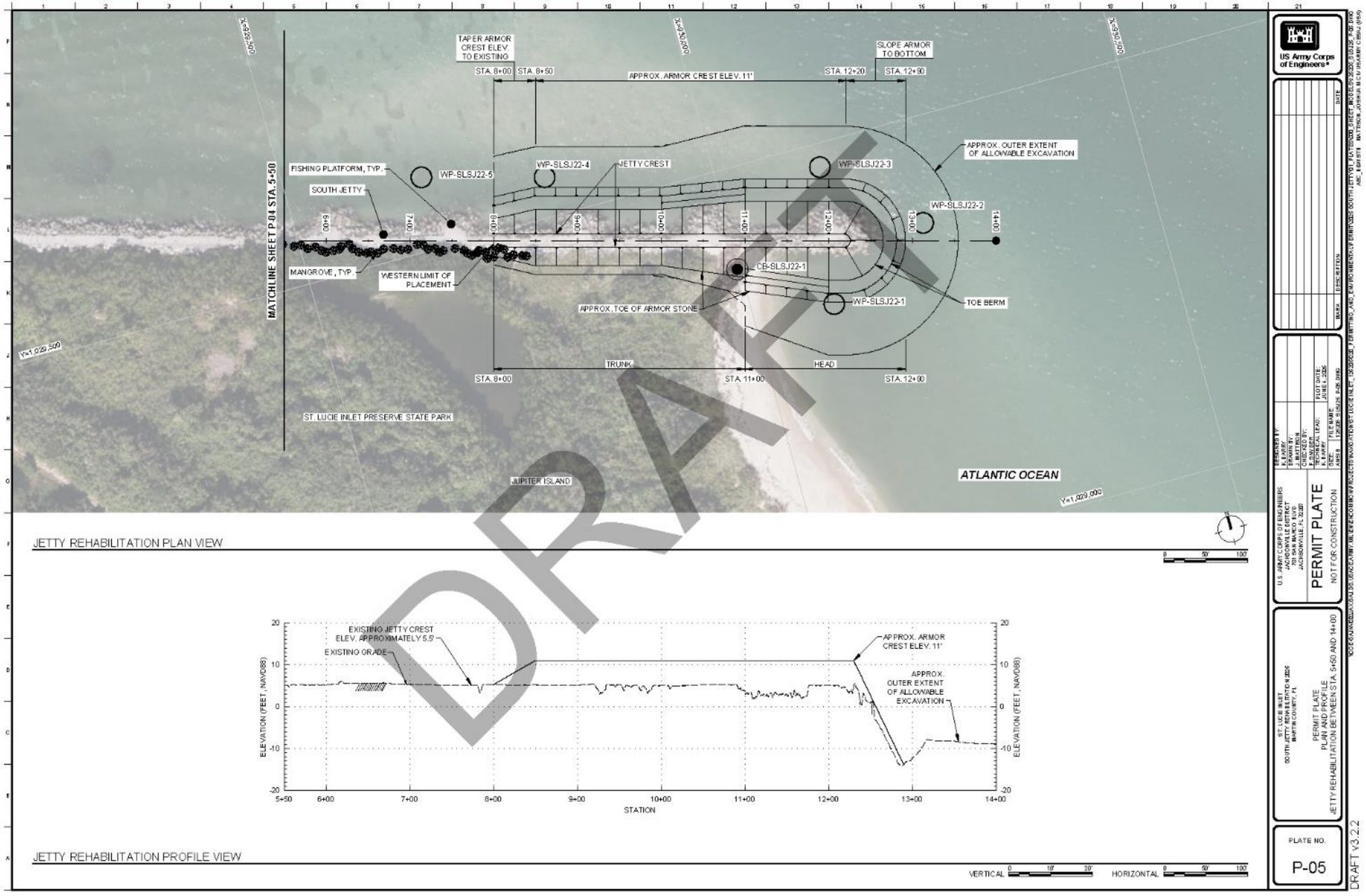

Figure 2-2: Jetty head rehabilitation plan showing approximate outer extent of excavation and armor stone placement

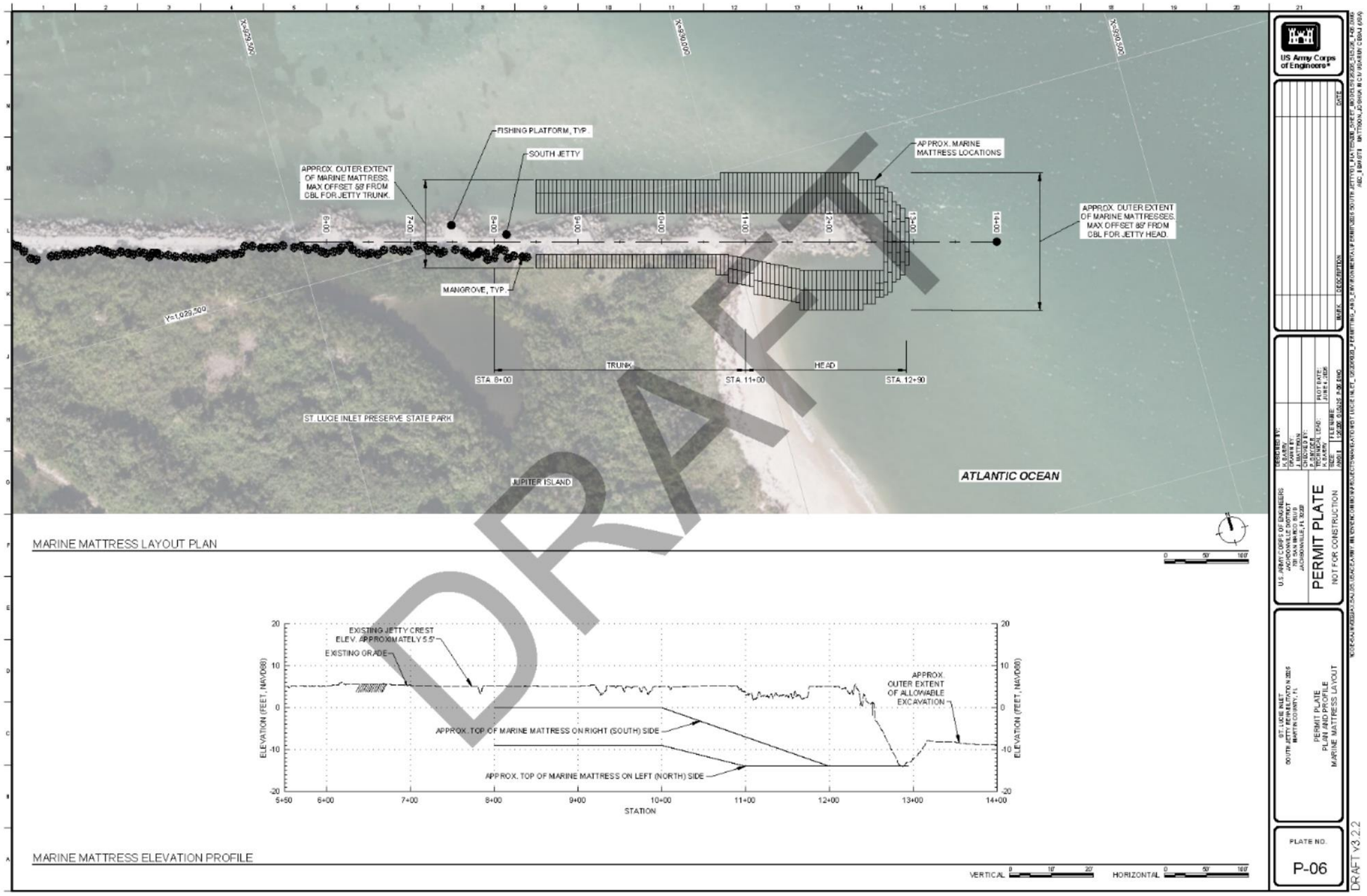

Figure 2-3: Marine mattress layout plan showing approximate locations and outer extent of mattress

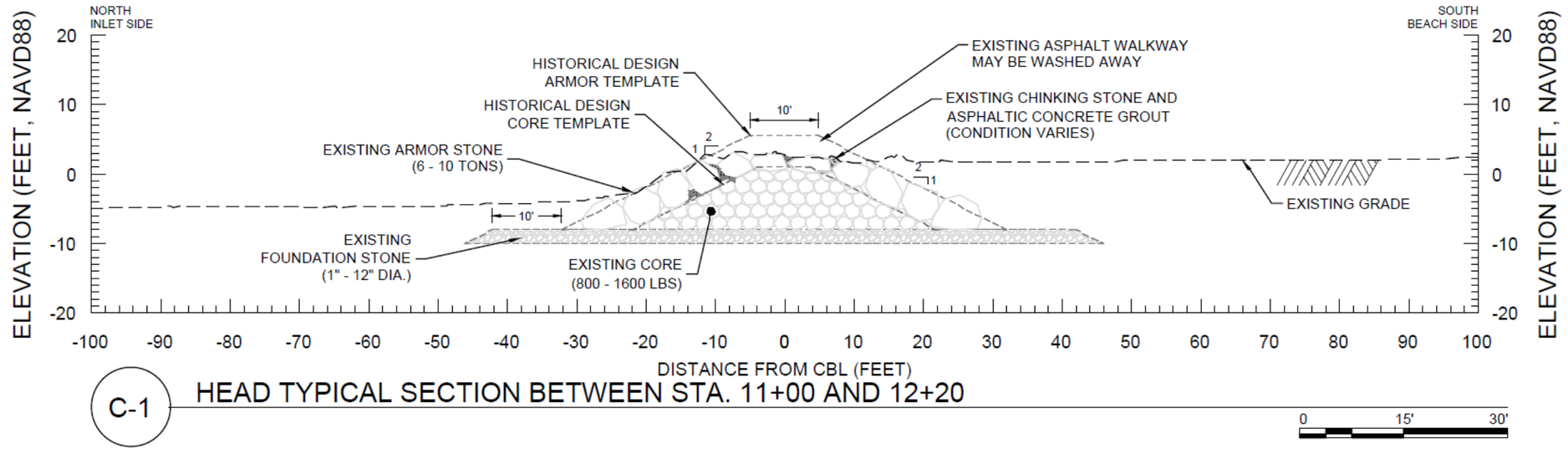

Figure 2-4: Proposed design of jetty head rehabilitation compared to the historical design template of the existing jetty, indicating the additional height and width of the rehabilitated structure due to the addition of the second layer of armor stone.

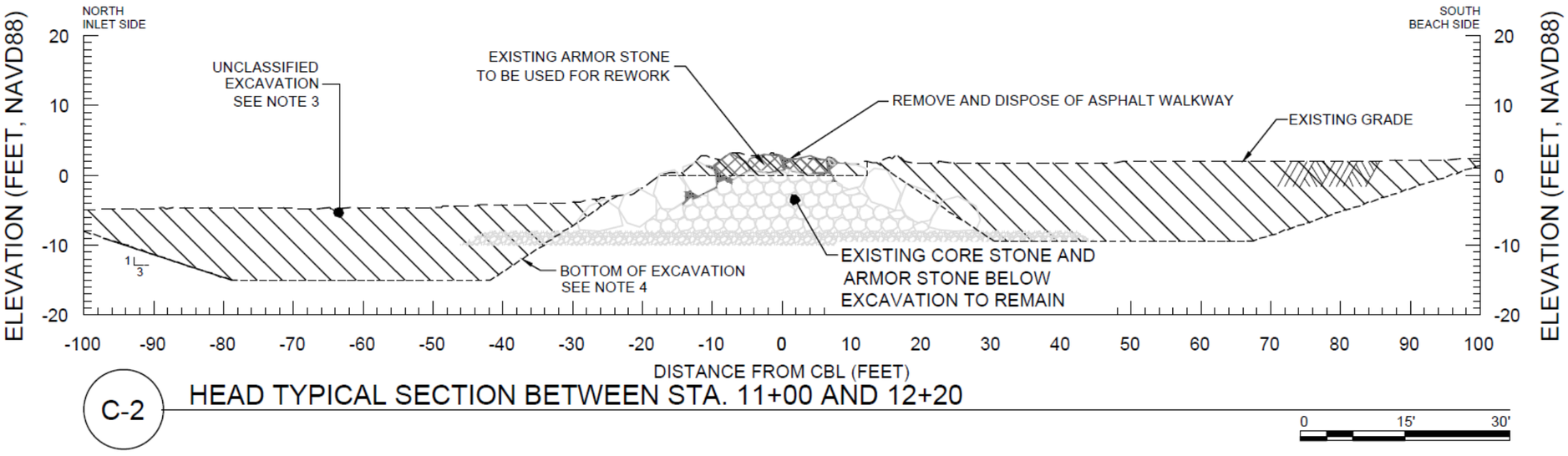

Figure 2-5: Proposed design of the jetty head rehabilitation excavation effort required to place the marine mattress for the rehabilitated structure.

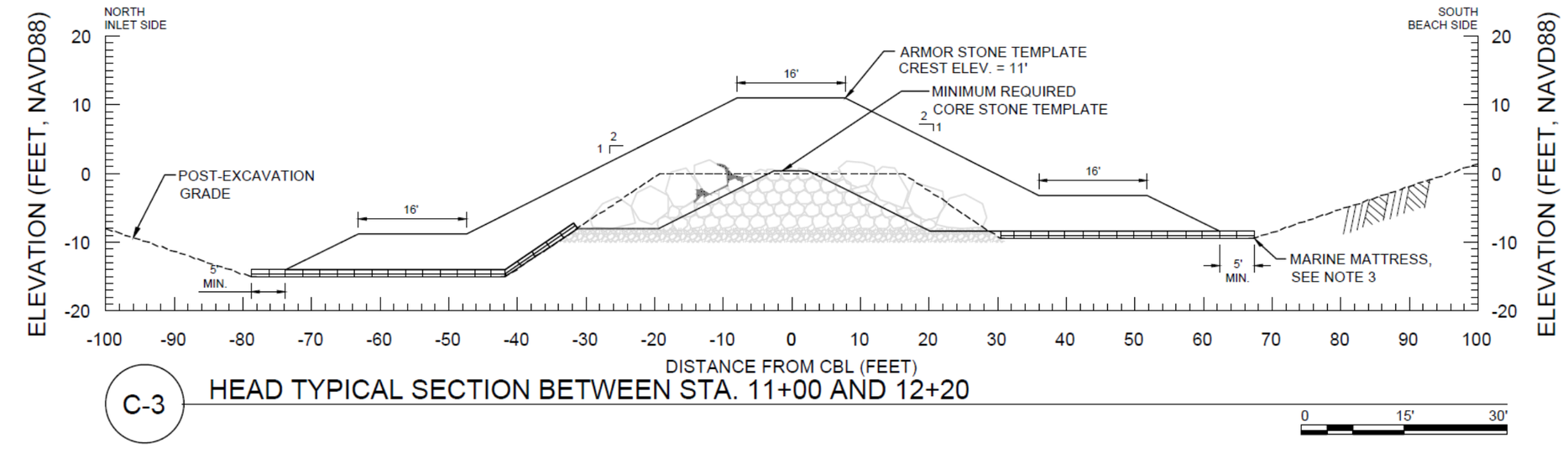

Figure 2-6: Proposed design of the jetty rehabilitation showing the height, width, slope, and elevation of the structure. The new design expands the footprint of the structure by approximately 80ft in total.

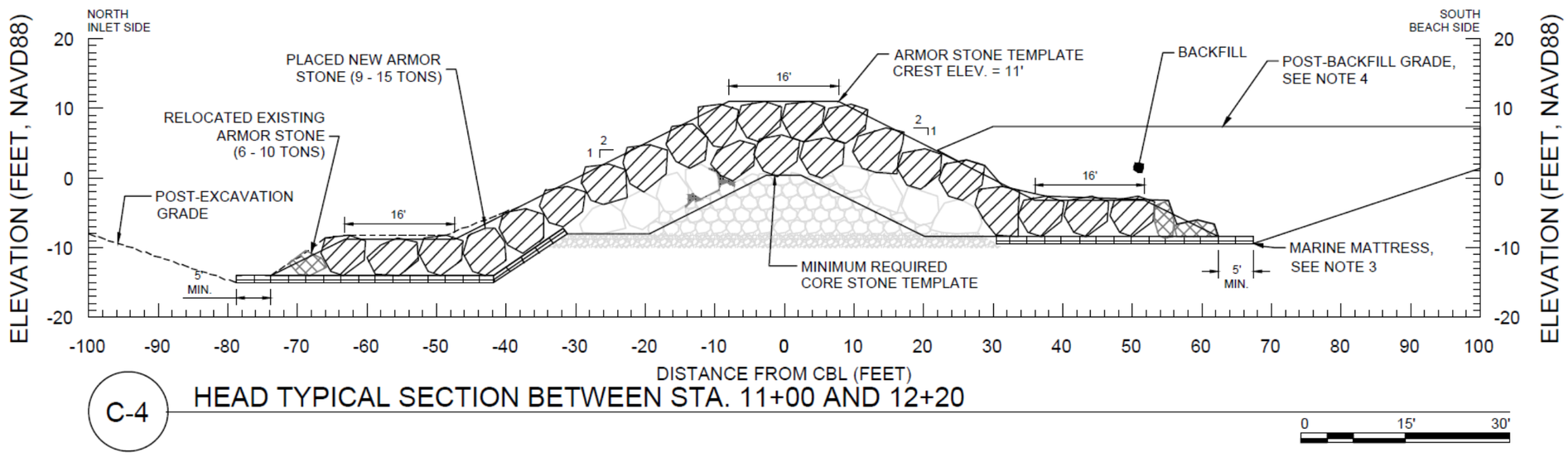

Figure 2-7: Proposed design of the jetty rehabilitation showing the placement of armor stones, backfill of sand, and marine mattress.

2.3.4 Construction Methodology

The NFS is responsible for providing staging and access, and these areas have been identified through coordination with the NFS, the Park, FDEP, and USFWS. The Corps' construction contract requires pre-project documentation and post-construction restoration of all staging and access areas to their pre-project condition.

Construction activities are expected to be conducted primarily from the land and may include the use of a coffer dam or crane trestle. In-water work may also be performed by barge-mounted crane or similar due to water depths or as preferred by the Corps' contractor. In order to complete the rehabilitation, the existing stone will be lifted out of place, and the material below will be excavated to depths no greater than 15 feet below the current seafloor. The current grade of the seafloor around the jetty is approximately 5.5 feet NAVD83 but varies around the existing structure. An estimated 10,000 cubic yards of fine to medium-grained sand-size quartz and carbonate sands with little silt material will be excavated via clamshell bucket from the barge in order to place the marine mattress. Shell fragments and limestone fragments are also present in the material to be excavated. Excavated material will be processed in order to remove debris such as stone that has shifted from the existing structure, wood, or trash.. After processing, excavated material will be placed back in the water around the rehabilitated structure. The excavated material may also be used for beach fill just south of the jetty structure.

Once excavation is complete, an approximately 1-foot-thick marine mattress will be placed. The marine mattress will be comprised of fill stone between 1.5 and 4 inches in size that is enveloped in geotextile. Placement of the marine mattress will expand the footprint of the jetty by approximately 80 feet in total in order to provide a more stable base for the structure. Once the mattress is placed, the core of the jetty will be constructed using existing and new stone as necessary, with two layers of armor stone placement following core construction. Construction of the jetty would occur following completion of the NFS' beach renourishment project, which is anticipated to be complete in spring 2027.

The Corps' environmental commitments are described in Section 6 of this BA and include applicable Reasonable and Prudent Measures (RPMs) and Terms and Conditions (T&Cs) of the 2015 Shore Protection Activities along the Coast of Florida Statewide Programmatic Biological Opinion (SPBO) and 2013 Programmatic Piping Plover Biological Opinion (P3BO). These commitments will be included in the project plans and specifications to avoid and/or minimize potential adverse effects to listed species during construction activities.

3 ESA-Listed Species

An official species list for USFWS managed species was obtained from the IPAC website on March 19, 2026 (Attachment A). There are 21 ESA-listed species under the purview of the USFWS, 3 designated critical habitats (DCH), and 1 proposed critical habitat (PCH) in the project area. (See **Table 1**). Project effect determinations have been made for each species and are discussed in Sections 3.1 and 3.2.

Table 1: ESA-Listed Species and Critical Habitat Potentially within the Project Area.

Common Name	Scientific Name	Federal Status
Eastern Black Rail	*Laterallus jamaicensis jamaicensis*	Threatened
Everglade Snail Kite	*Rostrhamus sociabilis plumbeus*	Endangered
Florida Scrub-jay	*Aphelocoma coerulescens*	Threatened
Piping Plover[D]	*Charadrius melodus*	Threatened
Florida Bonneted Bat	*Eumops floridanus*	Endangered
Southeastern Beach Mouse	*Peromyscus polionotus niveiventris*	Threatened
West Indian (Florida) Manatee[D]	*Trichechus manatus latirostris*	Threatened
Tricolored Bat	*Perimyotis subflavus*	Proposed
Florida Panther	*Puma concolor coryi*	Threatened
American Alligator	*Alligator mississippiensis*	Threatened
American Crocodile	*Crocodylus acutus*	Threatened
Eastern Indigo Snake	*Drymarchon couperi*	Threatened
Green Sea Turtle[P]	*Chelonia mydas*	Threatened
Hawksbill Sea Turtle	*Eretmochelys imbricata*	Endangered
Kemp's Ridley Sea Turtle	*Lepidochelys kempii*	Endangered
Leatherback Sea Turtle	*Dermochelys coriacea*	Endangered
Loggerhead Sea Turtle[D]	*Caretta caretta*	Threatened
Beach Jacquemontia	*Jacquemontia reclinata*	Endangered
Four-Petal Pawpaw	*Asimina tetramera*	Endangered
Tiny Polygala	*Polygala smallii*	Endangered
Monarch Butterfly	*Danaus plexippus*	Proposed
Florida Perforate Cladonia	*Cladonia perforate*	Endangered

[D] Designated Critical Habitat; [P] Proposed Critical Habitat

3.1 Rationale for Eliminating USFWS ESA-Listed Species & DCH from Further Consideration

The following species were eliminated from further consideration due to the Corps' determination that the species are not likely to be found in the project area, therefore, the project would have no effect on the species. More detailed rationale can be found in **Table 2**.

Table 2: ESA-Listed Species Eliminated from Further Consideration.

Common Name	"No Effect" Determination Rationale
Everglade Snail Kite	Typically found in freshwater marshes and lakes (FWC 2026); project not located within DCH.
Florida Panther	Prefers mature upland forests; unlikely to be found in beach habitat (NPS 2016).
American Alligator	Listing is based on similarity to American Crocodile which are not likely within the project area (USFWS 2026).
American Crocodile	Unlikely to be found in beach habitat (USFWS 2026); project is not located within DCH.
Monarch Butterfly	Unlikely to be found in beach habitat (USFWS 2026).
Florida Perforate Cladonia	Found along the southeastern coast of Martin County and is an extremely rare lichen; unlikely to be found in project vicinity (USFWS 2026).

3.2 ESA-Listed Species & DCH Considered in this Biological Assessment

Listed species under the purview of the USFWS which may occur in the vicinity of and may be affected by the project include: eastern black rail, Florida scrub-jay, piping plover, Florida bonneted bat, tricolored bat, Florida manatee, eastern indigo snake, nesting sea turtles (green, hawksbill, kemp's ridley, leatherback, and loggerhead), beach jacquemontia, four-petal pawpaw, and tiny polygala. DCH considered in this assessment includes nesting loggerhead sea turtle, piping plover, and Florida manatee. PCH considered in this assessment includes nesting green sea turtles. Details on the species and critical habitats are provided in Section 4, and the project effect determinations and rationale are provided in Section 5.

4 Environmental Baseline Conditions

Within the action area, there are beaches and fishing platforms with general public access. The Park is also home to some trails and camping areas for public use. These beaches are used year-round, though they are only accessible via water. Recreational boaters, jet skiers, and kayakers land at the beaches along the Park and Refuge for sunbathing, relaxing, wildlife watching, and swimming. The jetty is an existing structure within the action area, and the beaches within the area have been renourished consistently since 1979, which is accounted for in the analysis provided in Section 5 of this BA.

4.1 Shorebirds

There are three ESA-listed species of bird that have been identified as potentially occurring within the project area and vicinity, and more details are included in the following subsections for each of these species. These birds may be present within the project area, primarily in and around staging areas and access routes, though none are expected to be nesting on the beach. In-person communications with the Park and USFWS have indicated very little bird nesting activity within the project area and along the shoreline is known to occur.

4.1.1 Eastern Black Rail

Eastern Black Rail (*Laterallus jamaicensis jamaicensis*) were listed as threatened under the ESA on November 9, 2020. They are found in marsh habitats and are very small, sparrow-sized birds that forage on aquatic beetles, spiders, snails, and small crustaceans. These birds prefer dense vegetative cover that allows for movement beneath the canopy for foraging. Based on these characteristics, the Eastern Black Rail may be present within the project vicinity, though it has not been sighted and recorded in eBird (USFWS 2026) (eBird 2026).

4.1.2 Florida Scrub-jay

The Florida Scrub-jay (*Aphelocoma coerulescens*) was listed as threatened under the ESA on June 3, 1987. The Florida Scrub-jay is the only species of bird that is endemic to Florida and inhabits sand pine, xeric oak scrub, and scrubby flatwoods, old sand dunes along the coast, and sandy deposits along rivers within the interior of the state. Scrub-jays are known to inhabit the Refuge, therefore, these birds may be present within the project vicinity (USFWS 2026) (FWC 2011).

4.1.3 Piping Plover

The piping plover (*Charadrius melodus*) were listed as threatened under the ESA on December 11, 1985 for the Atlantic Coast and Northern Great Plains populations. The piping plover is a migratory shorebird that overwinters in Florida, though they do not breed in the state. They inhabit sandy beaches, sand flats, and mudflats along coastal areas. The USFWS designated critical habitat (DCH) for the wintering piping plover on July 10, 2001, and the project area overlaps unit FL-33 of this DCH, as shown in **Figure 4-1**. Piping plover have only been sighted twice in the project area in the past decade. (USFWS 2026) (FWC 2026) (eBird 2026) (USFWS 2007).

Figure 4-1: Piping Plover Designated Critical Habitat within the Project Vicinity

4.2 Nesting Sea Turtles

According to the nesting records for the project area over the past 10 years (2016 through 2025), there has been nesting by loggerhead, leatherback, and green sea turtles. There have been no documented hawksbill or Kemp's ridley nests within that time (**Table 3**). The FWC Florida Sea Turtle Nesting Beach Monitoring Program classifies overall sea turtle nesting areas by density and divides them into categories of low, medium, and high. The highest category is the top 75% of values, medium is the density between 75 to 25% and low is below 25% density. The program identifies the project area nesting density as medium for loggerhead and green turtles, and high for leatherback turtles (FWC 2011). Ecological Associates, Inc. (EAI) has conducted marine turtle nest monitoring for the project area since the 1990s. Daily nest monitoring begins on March 1st of each year and continues until the evaluation of the last marked nest is complete, typically in mid-to-late September of each year.

Loggerhead sea turtles were listed as threatened throughout their worldwide range under the ESA on July 28, 1978. The range was broken into 9 Distinct Population Segments (DPS) in 2011 with some listed as endangered and some as threatened. The Northwest Atlantic Ocean DPS was listed as threatened. In 2014, the National Marine Fisheries Service (NMFS) designated critical habitat for the Northwest Atlantic Ocean DPS (79 Fed. Reg. 39856).

Green sea turtles were listed as threatened throughout their worldwide range under the ESA on July 28, 1978. The range was broken into 11 DPS in 2016 with some listed as endangered and some as threatened. The North Atlantic DPS was listed as threatened and critical habitat was proposed for the North Atlantic DPS in 2023 (88 Fed. Reg. 46376).

Leatherback sea turtles were listed as endangered throughout their worldwide range on June 2, 1970. Unlike loggerhead and green sea turtles, range for leatherbacks was not broken into DPSs.

Table 3: Sea Turtle Nesting data within 2016 through 2025 survey timeframe.

	False crawl apex above high tide line	False crawl apex below or at high tide line	Nest laid above high tide line	Missed nest laid above high tide line, no previous record of a crawl	Nest laid below high tide line	Nest laid above high tide line, originally recorded as a false crawl
Leatherback	17	4	179	0	1	1
Loggerhead	4069	452	3799	0	15	0
Green	3619	137	2204	1	7	4

The USFWS designated the critical habitat for the loggerhead sea turtle in 2014 (79 Fed. Reg. 39856), which overlaps the project area with the nearshore reproductive unit

LOGG-N-18 and the constricted migratory unit LOGG-N-18, as shown in **Figure 4-2**. The USFWS proposed critical habitat (PCH) for green sea turtle in 2023 (88 Fed. Reg. 46376), which overlaps the project area with the unit FL-06, as shown in **Figure 4-3**.

Figure 4-2: Maps showing the designated critical habitat within the project vicinity for the loggerhead sea turtle; Left shows the constricted migratory DCH, while Right shows the nearshore reproductive DCH.

Figure 4-3: Map showing the PCH within the project vicinity for the green sea turtle.

4.3 Florida Manatee

The Florida manatee is a subspecies of the West Indian Manatee (*Trichechus manatus latirostris*) and can be found throughout the southeastern United States. Manatees are large, plant-eating aquatic mammals 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 they feed

underwater, manatees frequently rest just below the water surface with only their snout above water.

St. Lucie Inlet is a portion of the Indian River Lagoon system, an area of significance for manatees that come to forage on seagrasses. The lagoon is home to manatees year-round; however, it is also a central point along the migration route for manatees along the Atlantic Coast. (Indian River County, 2004).

Between December 1, 2020 and April 30, 2022, an Unusual Mortality Event (UME) for manatees along the Atlantic Coast occurred and was determined to be due to a loss of seagrasses causing starvations from lack of forage available within the Indian River Lagoon. This UME was closed on March 14, 2025 as mortalities from starvation in the area were no longer documented following the supply of at least 600,000 pounds of leafy greens to manatees at a supplemental feeding site (FWC 2020) (MMC 2024).

The Florida Fish and Wildlife Conservation Commission (FWC) completed aerial distribution surveys to identify seasonal distribution of manatees in the Indian River Lagoon from 2021 to 2025. These surveys demonstrate a presence of manatees in the project vicinity along the intracoastal waterway and throughout the Indian River Lagoon system, as shown in **Figure 4-4** (FWC 2021).

On September 24, 2024, the UFSWS proposed to revise the DCH for the Florida manatee (89 Fed. Reg. 78134). The PCH, Unit FL-09, includes the waters in the project area (**Figure 4-5**). Unit FL-09 consists of 37,829 acres and includes manatee-accessible waters below the MHW line. As of the writing of this BA, the PCH has not yet been finalized. Current existing DCH for the manatee extends throughout the Indian River Lagoon area and Martin County (42 Fed. Reg. 47840) (**Figure 4-5**) (USFWS 1977).

Manatees were listed as threatened under the ESA on March 11, 1967 (32 Fed. Reg. 4001). Additionally, the Florida manatee is protected by the state of Florida under the Florida Manatee Sanctuary Act § 379.2431(2), Fla. Stat., and Chapter 68C-22, Florida Admin. Code. Under the Florida Marine Sanctuary Act, the state provided further protection by designating Florida as a manatee sanctuary and providing signage and speed zones in Florida's waterways. Martin County overlaps the FWC Manatee Protection Zone, as shown in **Figure 4-6**.

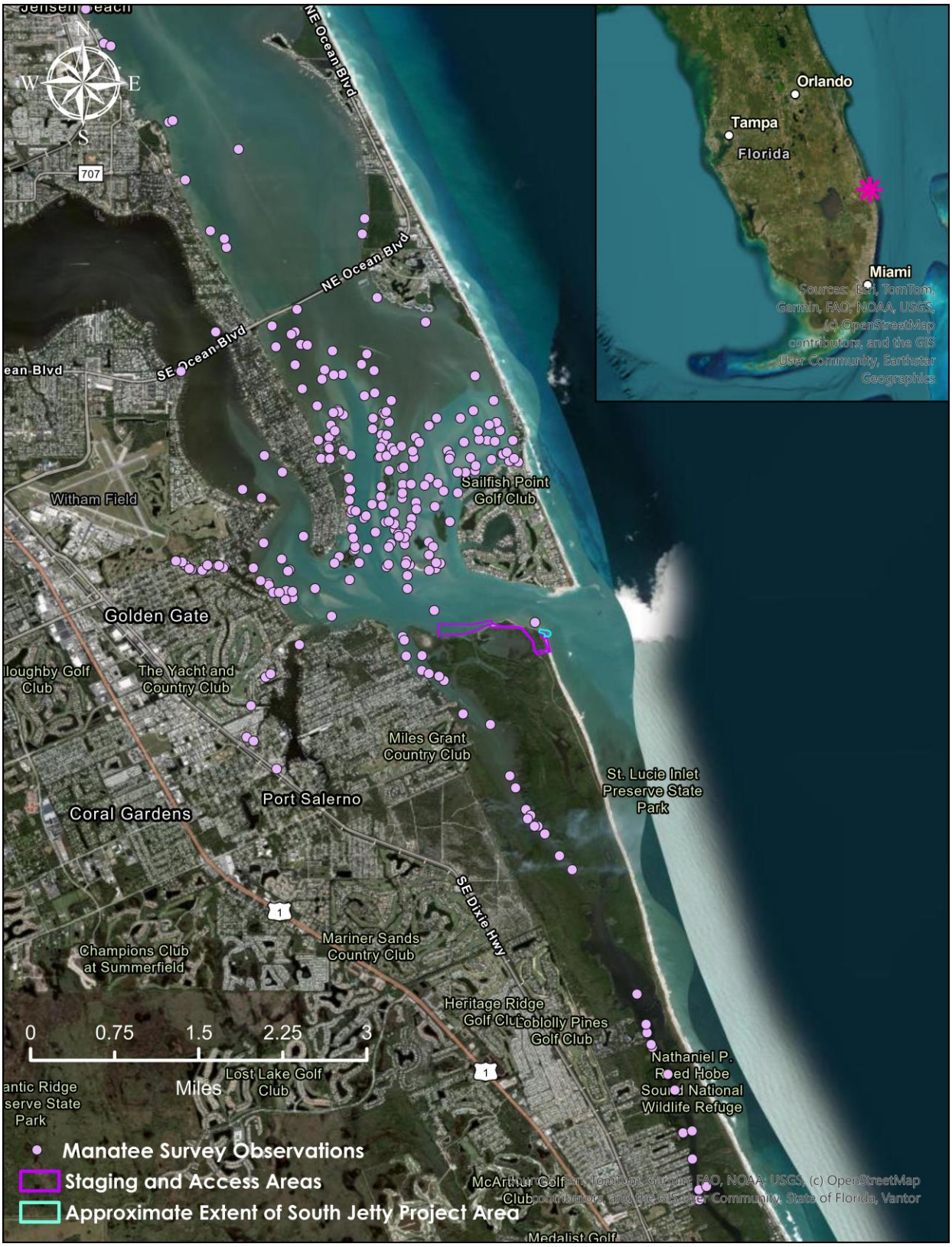

Figure 4-4: Manatee survey observations in the project vicinity between 2021 and 2025 (FWC).

Figure 4-5: Manatee Critical Habitat within the Project Vicinity.

Figure 4-6: Manatee Protection Zones within Project Vicinity

4.4 Florida Bonneted Bat

Florida Bonneted Bat (*Eumops floridanus*) were listed as endangered under the ESA on November 1, 2013. The bonneted bat is the largest bat in Florida and are among the largest in the United States with a wingspan of up to 20 inches. They are endemic to the portion of Florida south of Orlando to Miami, along both coasts (USFWS 2026). These bats breed year-round, with peak breeding activity occurring in the spring. Critical habitat was designated for the Florida bonneted bat on April 8, 2024, though it does not overlap the project area (89 CFR 16624). Martin County is included in the range of the bonneted bat, and the project area does have the appropriate characteristics for foraging habitat (USFWS 2026). These characteristics include open fresh water, permanent and seasonal freshwater wetlands, upland forests, and upland shrub (USFWS 2026), which are present along the staging and access areas proposed for the rehabilitation. Due to the presence of these characteristics, the USFWS indicated that the bonneted bat needed to be included in this BA (In-person communications February 2026). Conversations with the Park rangers indicate that no bat colonies have been sighted in the area in recent years, if ever (In person communications February 2026).

4.5 Tri-Colored Bat

Tricolored Bat (*Perimyotis subflavus*) were proposed for listing under the ESA as endangered by the USFWS on September 13, 2022. As of the writing of this BA, this listing has not been finalized. The range for the Tricolored bat extends into the Park and the Refuge, and the project area does have the appropriate characteristics for foraging habitat (USFWS 2026). These characteristics include presence of Spanish moss, trees, waterways, and forest edges (USFWS 2026), as are found along the staging and access areas proposed for the rehabilitation. Due to the presence of these characteristics, the USFWS indicated that the tri-colored bat needed to be included in this BA (in-person communications February 2026). The FWC Long-Term Bat Monitoring Program has recorded tricolored bats within the neighboring county to the north, St. Lucie County. The closest monitoring quadrant to the project area is approximately 25 miles to the northwest, just west of the Fort Pierce South area (FWC 2018 and 2026). In person communications with the preserve state park demonstrate that no bat colonies are expected within the project area and haven’t been sighted in recent years, if ever (In-person communications February 2026).

4.6 Eastern Indigo Snake

The Eastern Indigo Snake (*Drymarchon couperi*) was listed as threatened under the ESA on March 3, 1978. The snake inhabits portions of Florida and southeastern Georgia in longleaf pine sandhills, scrub, pine flatwoods, tropical hardwood hammocks, and coastal dunes. Often, the Eastern indigo snake relies on the burrows of gopher tortoises for shelter. Gopher tortoises are known to occur within the project vicinity and have burrows within the Park. The Eastern indigo snake preys on turtles, lizards, frogs, toads, fish, small birds, mammals, and eggs. They will also eat other snakes, including venomous ones, as they are immune to the venom of the North American rattlesnakes (USFWS 2026). According to the NatureServe Explorer, the Eastern indigo snake has been documented in the Refuge (NatureServe 2026).

4.7 Southeastern Beach Mouse

Southeastern beach mouse (*Peromyscus polionotus niveiventris*) was listed as threatened under the ESA on May 12, 1989 (54 FR 20598). Martin County falls within the historic range of the Southeastern beach mouse; however, the mouse is no longer present in the southern portion of its range (USFWS 2026). Based on current trends, the mouse is not expected to be present within the project area. The beach mouse is primarily found within Brevard and Volusia counties in Florida, more than 100 miles north of the project area (USFWS 2026). Conversations with the Park rangers indicate that there have been no sightings of the beach mouse within the project vicinity (In-person communications February 2026).

4.8 Plants

4.8.1 Beach Jacquemontia

Beach jacquemontia *(Jacquemontia reclinata)* was listed as endangered under the ESA on November 24, 1993, throughout its range (58 Fed. Reg. 62046). The vine is native to coastal barrier islands in southeast Florida from Martin through Miami-Dade counties (Weakley 2025). The beach jacquemontia occurs in dunes, coastal strands, and coastal scrub, often with sea grape and sand spurs (NatureServe 2026). The plant is quite rare, and though it is said to exist in Martin County, it is unlikely to be present within the project area due to such a low number of individual plants throughout its range (FSUS 2022). There are no known sightings of the plant in the project area or vicinity from the Florida Natural Areas Inventory (FNAI 2025).

4.8.2 Four-Petal Pawpaw

Four-petal pawpaw *(Asimina tetramera)* was listed as endangered under the ESA on September 26, 1986, throughout its range (51 Fed. Reg. 34415). The shrub is native to sand pine scrub habitat on the coastal dune system in Martin and Palm Beach Counties (USFWS 2022). As is the case with the beach jacquemontia, the four-petal pawpaw is quite rare. The four-petal pawpaw does exist in Martin County, however, due to the low number of individual plants throughout its range, it is unlikely to occur within the project area and has not been sighted within recent surveys (USFWS 2022).

4.8.3 Tiny Polygala

Tiny polygala *(Polygala smallii)* was listed as endangered under the ESA on July 18, 1985, throughout its range (50 Fed. Reg. 29345). As of the 2021 five-year review by USFWS, the annual herb is known to occur within 6 populations in St. Lucie, Martin, Palm Beach, and Miami-Dade counties (USFWS 2021). The tiny polygala is also quite rare and though it does exist in Martin County, due to the low number of individual plants throughout its range, it is unlikely to occur within the project area (USFWS 2021).

5 Effects of the Action

5.1 Action Area

Construction activities would temporarily impact water quality during construction due to localized disturbance caused by any excavation and/or placement of stone or marine mattress. Turbidity associated with jetty rehabilitation would likely be smaller in

magnitude compared to inlet operations, maintenance dredging activities, and/or beach nourishment. The rehabilitation of the south jetty will slow the shoaling of the inlet and federal channel, keeping the inlet navigable for both commercial and recreational boaters.

Rehabilitation of the jetty as proposed may affect listed species and their critical habitat in the action area if they are temporarily unable to use the site for foraging or nesting habitat due to avoidance of construction activities and related noise, vibrations, and presence of equipment. It is possible that there may be effects to listed species and their critical habitat along the staging and access areas proposed for the project due to presence or use of geomats, large scale construction equipment and machinery, silt fences, and other materials. Effects to specific species and applicable critical habitats are discussed in the sections below.

5.2 Shorebirds

The Corps determined that the proposed rehabilitation may affect, but is not likely to adversely affect, eastern black rail, Florida scrub-jay, and piping plover. Rehabilitation of the jetty is expected to increase foraging and potential nesting habitat as the shoreline is stabilized and protected from erosion. Direct effects to the birds from project construction are anticipated to be negligible and temporary as birds are mobile and can avoid construction activities. These impacts include displacement and disturbance from the presence of machinery, noise, and vibrations, as well as human disturbance during construction. Habitat exists outside of and adjacent to the project area with similar characteristics that may be used by displaced species while construction activities are underway. The prey base, which includes the benthic organisms, may be temporarily reduced in the footprint of the jetty and construction area. This effect would be short-term as recovery of these organisms is expected to occur quickly.

Unit FL-33 of piping plover DCH may be temporarily impacted by construction activities, due to excavation, driving on the beach, and transport/staging of materials such as armor stone; however, these effects are expected to cease with completion of the rehabilitation. The Corps has determined that DCH is not likely to be adversely modified by rehabilitation of the jetty as less than 1% of Unit FL-33 (approximately 0.03%) would be temporarily affected during construction. A temporary effect to less than 1% of Unit FL-33 would not appreciably diminish the value of the DCH. It is anticipated that the DCH may be improved by the shoreline stabilization and protection from erosion afforded by the rehabilitated structure.

The Corps' environmental commitments described in Section 6 of the BA include applicable RPMs and T&Cs of the P3BO. These commitments will be included in the project plans and specifications to avoid and/or minimize potential adverse effects to shorebirds to the maximum extent practicable.

5.3 Nesting Sea Turtles

The Corps determined that the proposed rehabilitation may affect green, loggerhead, and leatherback nesting sea turtles and hatchlings. As Kemp's ridley and hawksbill turtles have not nested in the project area in the period between 2016-2025 as described in Section 4, the Corps determined effects to these species from jetty

rehabilitation, while possible, are unlikely. While the rehabilitation of the jetty in this area is expected to be beneficial in restoring nesting sea turtle habitat through reduced erosion, there is also the potential to have negative impacts on nesting and hatchling sea turtles, specifically the green, loggerhead, and leatherbacks.

Potential effects from construction 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 equipment (e.g. silt fencing, coffer dam, etc.). 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. Although sea turtles will be temporarily unable to access the construction areas, these effects will be insignificant given the project's limited footprint and availability of similar habitat nearby. Elevated turbidity levels from the excavation of material and/or placement of stone for rehabilitation may impact swimming sea turtles as they navigate murkier waters near the structure, however, turbidity levels will be reduced through the implementation of environmental commitments. These effects are expected to be temporary and minor and would cease with completion of construction. Any disturbances to species would be temporary, after which the animals will be able to return to the site. Additionally, these animals are highly mobile organisms and beaches with similar habitat are nearby, it is reasonable to expect that the adjacent sites would provide foraging and nesting habitat.

There are not expected to be effects to nesting sea turtles following rehabilitation construction activities as the structure is already existing. It is possible that the expanded footprint may reduce the ability of female turtles to nest closer to the jetty structure, however, this is expected to be insignificant as little nesting has been indicated within this area immediately adjacent to the landward side of the jetty. The expansion of the rehabilitated jetty's footprint constitutes the loss of approximately 0.20 acres of LOGG-N-18 (total of 36,386 acres for the unit) of DCH for the loggerhead sea turtle due to the marine mattress placement, which is less than 1% (approximately 0.000005%) of LOGG-N-18. This also constitutes the loss of approximately 0.20 acres of FL-06 (total of 324 acres for the unit) of PCH for the green sea turtle, which is less than 1% (approximately 0.0006%) of FL-06. These effects to less than 1% of LOGG-N-18 and FL-06 would not appreciably diminish the value of the DCH or PCH.

Although a nesting survey and nest marking program would reduce the potential for nests to be impacted by construction activities, nests may be inadvertently missed (when crawls are obscured by rainfall, wind, and/or tides) or misidentified as false crawls during daily patrols. Even under the best conditions, about seven percent of the nests can be misidentified as false crawls by experienced sea turtle nest surveyors (Schroeder 1994). Besides the potential for missing nests during a nest relocation program, there is a potential for eggs to be damaged by their movement, particularly if eggs are not relocated within 12 hours of deposition (Limpus et al. 1979). Nest relocation can have adverse impacts on incubation temperature (and hence sex ratios), gas exchange parameters, hydric environment of nests, hatching success, and hatchling emergence (Limpus et al. 1979, Ackerman 1980, Parmenter 1980, Spotila et al. 1983, McGehee 1990). Relocating nests into sands deficient in moisture or oxygen can result in mortality, morbidity, and reduced behavioral competence of hatchlings.

Water availability is known to influence the incubation environment of the embryos and hatchlings of turtles with flexible-shelled eggs, which has been shown to affect nitrogen excretion (Packard et al. 1984), mobilization of calcium (Packard and Packard 1986), mobilization of yolk nutrients (Packard et al. 1985), hatchling size (Packard et al. 1981, McGhee 1990), energy reserves in the yolk at hatching (Packard et al. 1988), and locomotory ability of hatchlings (Miller et al. 1987).

Effects to sea turtles from artificial lighting are possible as well. When artificial lighting is present on or near the beach, it can misdirect hatchlings once they emerge from their nests and prevent them from reaching the ocean (Mann 1977). In addition, a significant reduction in sea turtle nesting activity has been documented on beaches illuminated with artificial lights (Witherington 1992). Therefore, construction lights along the project's beach area, staging and access areas, and any support vessels or equipment may deter females from coming ashore to nest, misdirect females trying to return to the surf after a nesting event, and misdirect emergent hatchlings from adjacent non-project beaches. Any sources of bright lighting can profoundly affect the orientation of hatchlings, both during the crawl from the beach to the ocean and once they begin swimming offshore. Hatchlings attracted to light sources on vessels or barges may not only suffer from interference in migration by may also experience higher probabilities of predation by predatory fishes that are also attracted to the lights. This impact could be reduced by using the minimum amount of light necessary (may require shielding) or low-pressure sodium lighting during project construction. Construction only during daylight hours will reduce the need for artificial lighting to be used at night. If lights are necessary for staging and access areas during nighttime hours, shielding or low-wattage bulbs may be used in order to reduce potential impacts to nesting turtles and/or hatchlings as well.

Due to the availability of similar habitat nearby, the Corps determined that the proposed rehabilitation will not jeopardize the continued existence of the listed species of sea turtles utilizing the beach and a mitigation plan for the loss of sea turtle nesting habitat is not required. Although the expansion of the rehabilitated jetty's footprint will result in a loss of approximately 0.20 acres of LOGG-N-18 and FL-06, this is expected to be insignificant as the structure is currently existing, little nesting has occurred in the area immediately adjacent to the landward side of the jetty, and the total loss of DCH is less than 1% (approximately 0.000005% and 0.0006%. respectively), which does not appreciably diminish the value of the DCH.

The Corps' environmental commitments described in Sections 6 of the BA include applicable RPMs and T&Cs of the SPBO. These commitments will be included in the project plans and specifications to avoid and/or minimize potential adverse effects to the maximum extent practicable.

5.4 Florida Manatee

The Corps determined that the proposed rehabilitation may affect, but is not likely to adversely affect, Florida manatees. Impacts include interaction with construction equipment, disturbance from increases in noise or vibration and elevated turbidity levels. Turbidity levels will be reduced with the implementation of environmental commitments and risk of vessel strike to marine mammals is reduced through

implementation of the USFWS 2011 Standard Manatee Conditions for In-water Work, which will be included in the project's contract specifications. These effects are expected to be temporary and minor and would cease with completion of construction.

Since the jetty is an existing structure, the rehabilitation activities are not expected to have lasting adverse effects on manatee DCH or PCH. Construction activities may have temporary and minor adverse impacts on DCH and PCH due to the presence and use of equipment, vessels, and the materials necessary to complete construction; however, these effects would cease following completion of construction. Construction activities are not expected to appreciably diminish the value of the DCH or PCH.

5.5 Bats

The Corps determined that the proposed rehabilitation may affect, but is not likely to adversely affect, the Florida bonneted or tricolored bats. Bats would be affected by noise and vibrations in much the same way birds are, so these effects are expected to be negligible and temporary. However, in order to access the staging areas and jetty structure, clearing and grubbing of the staging and access areas is expected to be necessary. Due to this, it is possible that tree-roosting bats or bat colonies occupying the surrounding trees may be temporarily disturbed. Rehabilitation of the jetty is expected to reduce erosion and storm-related impacts at the Park, which would maintain existing bat habitat and roosting opportunities in the project area. As DCH for the Florida bonneted bat does not overlap the project area, no effects to DCH are expected.

5.6 Eastern Indigo Snake

The Corps determined that the proposed rehabilitation may affect, but is not likely to adversely affect, eastern indigo snake. Clearing and grubbing of the staging and access areas, as well as potential use of geomats during construction, may have temporary and minor effects on the eastern indigo snake. Presence of equipment, noise, and vibrations may disturb eastern indigo snakes within the project area and along staging and access areas. As these are highly mobile animals, they may traverse to adjacent habitat during construction activities in order to avoid the area. Implementation of the USFWS' 2024 Standard Protection Measures for Eastern Indigo Snake will reduce potential effects to snakes and will be included in the project's contract specifications.

5.7 Southeastern Beach Mouse

The Corps determined that the proposed rehabilitation would have no effect to the ESA-listed beach mouse. As described in Section 4.7, these mice are no longer present within this southern portion of their historic range and are only found more than 100 miles north of the project vicinity. Therefore, the mice are not likely to occur within the project area, including the proposed staging and access areas.

5.8 Plants

The Corps determined that the proposed rehabilitation would have no effect to the ESA-listed plant species beach jacquemontia, four-petal pawpaw, and tiny polygala. As described in the subsections of Section 4.8, these are rare plants and are unlikely to occur within the project area, including the proposed staging and access areas.

6 Environmental Commitments

Efforts to eliminate or significantly reduce the potential impacts associated with construction and maintenance of the proposed rehabilitated jetty, as well as avoidance and minimization measures for listed species, were derived from RPM and T&Cs included in the SPBO, P3BO, Standard Protection Measures for Eastern Indigo Snake, and Standard In-Water Manatee Protection Measures, as well as other best management practices. These commitments will be included in the project's plans and specifications and include the following:

6.1 General

a. A pre-construction meeting will be conducted to inform supervisors and employees about the conservation of protected species, as well as penalties for harassing or harming such species.

b. Prior to the commencement of construction activities, the contractor will instruct all personnel associated with the project on which endangered species may be in the area, and on the civil and criminal penalties for harming, harassing, or killing them.

c. The contractor will instruct all personnel associated with the project of the potential presence of these species and the need to avoid collisions with them. All construction personnel are responsible for observing water-related activities for the presence of sea turtles and manatees.

d. Any incident involving the death or injury of any listed T&E species will be immediately reported to the Corps and USFWS.

e. Construction access and staging areas will be identified in contract plans and specifications. Contractor vehicles, construction equipment, and storage facilities will be required to stay within the identified construction area.

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

g. If needed, siltation or turbidity barriers will be made of material in which listed species cannot become entangled, will be properly secured, and will be regularly monitored to avoid entanglement or entrapment. Barriers must not impede listed species movement, entry to or exit from the area.

h. In the event that a coastal structure fails or begins to disintegrate, all debris and structural material must be removed from the nesting beach area and deposited off-beach immediately.

6.2 Nesting Sea Turtle Specific Commitments

Nesting commitments

a. If construction will be conducted during the period from March 1 through May 30, daily surveys for nesting green, loggerhead, and leatherback sea turtles must be conducted. If the nests occur in the area of the beach where work is or will be occurring, the eggs must be relocated. If construction will be conducted during the period from November 1 through November 30, surveys for late nesting sea turtles must be conducted. If nests occur in the area of beach where work is or will be occurring, the eggs must be relocated.

b. During the early and late portions of the nesting season, construction equipment and materials must be stored in a manner that will minimize impacts to sea turtles to the maximum extent practicable.

c. Any known nests recorded just prior to the beginning of nesting season monitoring will be relocated if it will be impacted by the construction activity or marked and avoided if feasible. Any late season sea turtle nests (i.e., occurring after the monitoring period ends) would be marked and avoided. The Corps would notify USFWS of the nest and coordinate to ensure an appropriate buffer distance is placed around the nest to protect it from construction activities until hatching is complete.

Lighting

a. During the early and late portions of the nesting season, lighting associated with the project must be minimized to reduce the possibility of disrupting and misdirecting nesting and/or hatchling sea turtles.

b. No permanent lighting will be installed. All temporary, safety lighting must be reduced to the minimum standard required by Occupational Safety and Health Administration (OSHA) and Corps Engineering Manual 385-1-1 to reduce the possibility of disrupting or disorienting nesting or hatchling sea turtles. Temporary lighting will be downward directed, full cut-off and fully shielded, and will utilize long wavelength light sources.

Surveys and Monitoring

a. Following construction, daily nesting surveys will be conducted for two nesting seasons, specifically from March 1st through October 31st for Martin County (per the SPBO Table 18). Year one surveys will record the number of nests, nesting success, reproductive success, disorientations, and lost nests due to erosion and/or inundation. Year two surveys will record the number of nests, nesting success, and disorientations.

b. The contractor will be responsible for ensuring sea turtle nesting monitoring and avoidance activities are conducted. Prior to the start of any work on the beach

each morning the contractor will coordinate with the sea turtle nest monitor to ensure all nests are marked for avoidance.

c. Daily early morning surveys will be required and will be initiated 65 days prior to the start of work or by the beginning of nesting season monitoring. Nesting surveys will continue through the end of the nesting season monitoring October 31st (per the SPBO Table 18) and relocations will continue through the end of construction. All surveys and relocation activities will be conducted as described in the SPBO.

d. Visual weekly surveys for escarpments along the project area will be conducted immediately after rehabilitation of the jetty and within 30 days prior to the start of the next three nesting seasons (March 1st, per the SPBO Table 18). Escarpments will be leveled as described and required by the SPBO to reduce the likelihood of nesting sea turtles or hatchlings.

Construction

a. If a sea turtle is seen within 100 yards of the active construction or vessel movement, all appropriate precautions will be implemented to ensure its protection. These precautions will include cessation of operation of any moving equipment closer than 50 feet of a sea turtle. Operation of any mechanical construction equipment will cease immediately if a sea turtle is seen within a 50-ft radius of the equipment. Activities will not resume until the sea turtle has departed the project area of its own volition.

b. A barrier will be installed around the perimeter of the jetty work area sufficient enough to prevent adult and hatching sea turtles from accessing the project site.

c. Equipment and materials will be stored in a manner that minimizes any potential impacts to sea turtles to the maximum extent practicable.

d. To the maximum extent practicable within the travel corridor, all ruts will be filled in or leveled to the natural beach profile prior to the completion of daily construction.

Collision, Injury or Entrapment

a. Any collision with and/or injury to a swimming sea turtle will be reported immediately to the Corps, National Marine Fisheries Service's Protected Resources Division (727-824-5312), and the local authorized sea turtle stranding/rescue organization at seaturtlestranding@myFWC.com. Any collision with and/or injury to a sea turtle on the beach will be reported immediately to the Corps, USFWS Vero Beach Field Office (772-562-3909), and the local authorized sea turtle stranding/rescue organization at seaturtlestranding@myFWC.com.

b. If entrapment of sea turtles occurs in the jetty post-construction, the Corps will meet with USFWS to discuss a possible solution prior to the next nesting season.

6.3 Manatee Specific Commitments

a. The project will comply with the USFWS Standard Manatee Conditions for In-Water Work (USFWS 2011). All personnel associated with the project will be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with manatees. Construction personnel will be advised that there are civil and criminal penalties for harming, harassing, or killing manatees, which are protected under the Marine Mammal Protection Act and the Endangered Species Act.

b. 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 and 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 or the presence of manatee(s). All in-water operations, including vessels, must be shut down if a manatee comes within 50 feet of the operation. Activities will not resume until the manatee has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.

e. Temporary signs concerning manatees will 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. One sign which reads *Caution: Manatee Habitat* must be posted. A second sign measuring at least 8 ½" by 11" explaining the requirements for "Idle Speed/No Wake" and the shutdown of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities.

f. Any collision with or injury to a manatee will be reported immediately to the FWC Manatee Hotline (1-844-404-FWCC (3922)) and imperiledspecies@myFWC.com and the USFWS Vero Beach Field Office (772-562-3909).

6.4 Shorebird Specific Commitments

a. One pre-construction piping plover survey will be conducted within a 10-day timeframe beginning the first Friday in February, as outlined in the Florida Shorebird Alliance's Winter Shorebird Survey (https://flshorebirdalliance.org). If the February pre-construction survey is not possible, two pre-construction piping plover surveys will be conducted at least 15 days apart. The following information will be collected, mapped, and reported:

1. Date, location, time of day, weather, and tide cycle when the survey was conducted.
2. Latitude and longitude of observed piping plover locations (decimal degrees preferred).
3. Any color bands observed on piping plovers.
4. Behavior of piping plovers (e.g. foraging, roosting, preening, bathing, flying, aggression, walking, etc.).
5. Landscape features where piping plovers are located (e.g. inlet spit, tidal creeks, shoals, lagoon shoreline, etc.).
6. Habitat features used by piping plovers when observed (e.g. intertidal, fresh wrack, old wrack, dune, mid-beach, vegetation, etc.).
7. Substrata used by piping plovers (e.g. sand, mud/sand, mud, algal mat, etc.).
8. The amount and type of recreational use (e.g. people, dogs on or off leash, vehicles, kite-boarders, jet skiers, etc.).
9. All other shorebirds/waterbirds seen within the survey area.

b. Prior to construction, the contractor will delineate preferred piping plover habitat (intertidal portions of ocean beaches, ephemeral pools, washover areas, wrack lines) outside of the project footprint but potentially impacted by the construction activity. Obvious identifiers will be used (for example, pink flagging on metal poles) to clearly mark the beginning and end points to prevent accidental impacts to use areas.

c. Piping plover habitat delineated outside of the footprint will be avoided to the maximum extent practicable when staging equipment and establishing travel corridors.

d. Driving on the beach for construction will be limited to the minimum necessary within the designated travel corridor, which will be established just above or just below the primary “wrack” line.

e. Predator-proof trash receptacles will be installed and maintained during construction at all beach access points used for the project construction to minimize the potential for attracting predators of piping plovers. Workers will be briefed on the importance of not littering and keeping the project area trash and debris free. (Examples of suitable receptacles can be found in Appendix B of the P3BO or Appendix D of the SPBO).

Educational signs will be installed at public access points within the project area with emphasis on the importance of the beach habitat and wrack for piping plovers. When the project area has a pet or dog regulation, the provisions of the regulation will be included on the educational signs.

6.5 Bat Specific Commitments

a. Prior to construction, one pre-construction roosting survey will be completed to identify trees used for roosting activities by bats.

b. Obvious identifiers will be used (for example, pink flagging) to clearly mark the trees used for roosting to prevent accidental impacts to use areas.

c. Staging and access areas will avoid roosting trees to the maximum extent practicable.

6.6 Eastern Indigo Snake Commitments

a. All project personnel will be notified about the potential presence and appearance of the Eastern indigo snake.

b. All project personnel will be advised that there are civil and criminal penalties for harassing, harming, pursuing, hunting, shooting, wounding, killing, capturing, or collecting the species, in knowing violation of the ESA.

c. Educational posters in the construction office and throughout the construction site will be posted. Posters will be clearly visible to all construction staff and will be posted in a conspicuous location in the field office until project construction has been completed.

d. Prior to the onset of construction activities, a meeting will be conducted with all construction staff (annually for multi-year projects) to discuss identification of the snake, its protected status, what to do if a snake is observed in the project area, and applicable penalties that may be imposed if state and/or federal regulations are violated.

e. Each day, prior to the commencement of construction activities, a thorough inspection of all worksite equipment for the species will be performed.

f. If an eastern indigo snake (alive, dead or skin shed) is observed on the project site during construction activities, all such activities are to cease until notification of the appropriate USFWS Office has occurred.

g. During initial site clearing activities, an onsite observer is recommended to determine whether habitat conditions suggest a reasonable probability of a snake sighting.

h. Periodically during construction activities, the condition of the posters and signage will be observed and replaced as needed.

i. A monitoring report will be submitted to the appropriate USFWS field office within 60 days of project completion, whether snakes are observed during construction activities or not.

7 Conclusions

In summary, due to the inclusion of the environmental commitments described in Section 6, the Corps determined that the rehabilitation and maintenance of the proposed jetty may affect, but is not likely to adversely affect, the Eastern black rail, Florida scrub-jay, piping plover, Florida bonneted bat, Florida manatee, Eastern indigo snake, hawksbill sea turtle, and Kemp's ridley sea turtle, and may affect the green, leatherback, and loggerhead sea turtles. The project is not likely to adversely modify DCH for the piping plover, Florida manatee, or loggerhead sea turtle, nor is it likely to adversely modify the PCH for the green sea turtle.

The Corps requests USFWS concur with the "may affect, not likely to adversely affect" and the "may affect" determinations and confirm and/or update the commitments described in Section 6 through the issuance of the project-specific Biological Opinion.

8 References

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