



Florida Department of Environmental Protection

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Secretary

CONSOLIDATED JOINT COASTAL PERMIT AND SOVEREIGN SUBMERGED LANDS AUTHORIZATION

PERMITTEE:

Chuck Mopps
Charlotte County Board of County Commissioners
18500 Murdock Circle
Port Charlotte, Florida 33948

AGENT:

Michael Poff
Coastal Engineering Consultants, Inc.
3106 South Horseshoe Drive
Naples, Florida 34104

PERMIT INFORMATION:

Permit Number: 0194790-017-JC

Project Name: Charlotte County Erosion
Control (Restoration,
Nourishment, Groin, and
Stump Pass Maintenance
Dredging)

County: Charlotte

Issuance Date: September 2, 2015

Expiration Date: September 2, 2030

REGULATORY AUTHORIZATION:

This permit is issued under the authority of Chapter 161 and Part IV of Chapter 373, Florida Statutes (F.S.), and Title 62, Florida Administrative Code (F.A.C.). Pursuant to Operating Agreements executed between the Department of Environmental Protection (Department) and the water management districts, as referenced in Chapter 62-113, F.A.C., the Department is responsible for reviewing and taking final agency action on this activity.

This permit **supercedes Permit No. 0194790-012-JM**, and all associated modifications, approved documents and attachments.

PROJECT DESCRIPTION:

The Project authorizes:

1) Periodic inlet maintenance dredging and sand bypassing with beach placement of dredged material onto the northern segment of Knight Island and the North Beach Fill (NBF, R-26 to 1500 feet northward of R-23.3 along the Knight Island Shoreline), and the Manasota Key Beach Fill Berm and Updrift Beach Fill (UBF, R-14.5 to R-21.2);

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2) Beach restoration and periodic beach nourishment using an offshore borrow area (Manasota Key Beach Fill Area and UBF (R-9 to R-21.2); Knight Island Beach Fill Berm and South Beach Fill (SBF, R-26 to R-40.5));

3) Construction of a terminal groin on the south end of Manasota Key (approximately R-21.2) and operation/remediation activities if needed, including adjusting permeability of terminal groin on UBF and/or making minor repairs to the terminal groin if impacted by storms;

4) Placement of material into the ebb shoal reformation area using the offshore borrow areas to supplement the annual growth rate of the shoal to the level that has been maintained between 2003 to 2011; and

5) Other maintenance activities including placement of supplemental beach fill in hotspot areas adjacent to Stump Pass in the event anthropogenic activities result in accelerated erosion in those project areas, maintaining flushing of Rum Cove lagoon in the event project activities preclude natural exchange with the lagoon and transferring sand (within the approved project boundaries) from areas of accretion to other locations in need of sand for hot-spot maintenance.

The elevations of the design beach berms will range from +2.5 feet to +4.0 feet North American Vertical Datum (NAVD). The UBF and NBF will feature berms with variable widths, sloped at 1:200 (vertical:horizontal, V:H). The Manasota Key Beach Fill Berm, the Knight Island Beach Fill Berm and the SBF segment will feature berms with variable widths, sloped at 1:100 (V:H). All fill locations will feature a foreshore slope of 1:15 (V:H). The maximum dredged depths for offshore borrow Subarea A1 will be between -35.5 feet and -37 feet NAVD (i.e., -33.5 feet and -35.0 feet NAVD, plus 2 feet of allowable overdredge). The maximum dredged depths for Subarea A2 will be between -34.5 feet and -35.5 feet NAVD (i.e., -32.5 feet and -33.5 feet NAVD, plus 2 feet of allowable overdredge). The maximum dredged depths for Subarea A3 will be between -34.5 feet and -36.5 feet NAVD (i.e., -32.5 feet and -34.5 feet NAVD, plus 2 feet of allowable overdredge). The maximum dredged depths for Subarea B1 will be between -39.5 feet and -40 feet NAVD (i.e., -37.5 feet and -38 feet NAVD, plus 2 feet of allowable overdredge). The maximum dredged depths for Subarea B2 will be between -41.0 feet and -43.5 feet NAVD (i.e., -39.0 feet and -41.5 feet NAVD, plus 2 feet of allowable overdredge). The maximum dredged depths for the Stump Pass Channel Borrow Area will be between -11 feet and -13 feet NAVD (i.e., -9 feet and -11 feet NAVD, plus 2 feet of allowable overdredge). The terminal groin will be approximately 580 feet in length, and will feature a base width of 81.5 feet and a crest width of 16 feet.

The activity includes consideration of an application for a 15-year sovereign submerged lands public easement (Instrument No. 41764, BOT File No. 080238765) containing 134.06 acres or 5,861,862 square feet, more or less, for Borrow Area A; 48.4 acres or 2,111,398 square feet, more or less, for Borrow Area B; 42.9 acres or 1,866,585 square feet, more or less, for the Stump Pass Channel Borrow Area; and 2.08 acres or 90,560 square feet, more or less, for the terminal groin.

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PROJECT LOCATION:

The Manasota Key Beach Fill Berm is located between DEP Reference Monuments R-9 and R-18, the southern portion of which (R-15.4 to R-18) is located within Stump Pass Beach State Park. The UBF segment is located between R-18 and R-21.2, within Stump Pass Beach State Park, on Manasota Key. The Knight Island NBF segment extends northward from approximately R-23.3 along the Stump Pass shoreline for 1500 feet. The Knight Island Beach Fill Berm is located between R-23.3 and R-31.5. The Knight Island/Don Pedro Island SBF segment is located between R-31.5 and R-40.5. The terminal groin is located on the south end of Manasota Key, at approximately R-21.2. The ebb shoal reformation area is located just offshore of Stump Pass Beach State Park, between R-19 and Stump Pass Channel. These areas are located in Charlotte County, Sections 12 and 13, Township 41 South, Range 19 East, and Sections 18, 19, 20, 28, 29, 32 and 33, Township 41 South, Range 20 East, extending into the Gulf of Mexico, Class III Waters.

The maintenance dredging activity is located in Stump Pass, which extends from Lemon Bay, Class II, partially within Lemon Bay Aquatic Preserve, Outstanding Florida Waters (OFW), to the Gulf of Mexico, Class III Waters, in Charlotte County.

The offshore Borrow Areas are located in the Gulf of Mexico, Class III Waters. Borrow Area A (subareas A1, A2 and A3) is located approximately 3.8 miles offshore of Stump Pass and Borrow Area B (subareas B1 and 2) is located approximately 6.3 miles offshore of Stump Pass.

PROPRIETARY AUTHORIZATION:

This activity also requires a proprietary authorization, as the activity is located on sovereign submerged lands held in trust by the Board of Trustees of the Internal Improvement Trust Fund (Board of Trustees), pursuant to Article X, Section 11 of the Florida Constitution, and Sections 253.002 and 253.77, F.S. The activity is not exempt from the need to obtain a proprietary authorization. The Board of Trustees delegated, to the Department, the responsibility to review and take final action on this request for proprietary authorization in accordance with Section 18-21.0051, F.A.C., and the Operating Agreements executed between the Department and the water management districts, as referenced in Chapter 62-113, F.A.C. This proprietary authorization has been reviewed in accordance with Chapters 253 and 258, F.S., Chapters 18-20, 18-21 and Section 62-330.075, F.A.C., and the policies of the Board of Trustees.

As staff to the Board of Trustees, the Department has reviewed the project described above, and has determined that the placement of sand on the beach qualifies for a Letter of Consent to use sovereign, submerged lands, as long as the work performed is located within the boundaries as described herein and is consistent with the terms and conditions herein. Therefore, consent is hereby granted, pursuant to Chapter 253.77, F.S., to perform the activity on the specified sovereign submerged lands.

As staff to the Board of Trustees, the Department has determined that the borrow areas for the beach fill activities, as well as the terminal groin structure, require a public easement for

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the use of those lands, pursuant to Chapter 253.77, F.S. The Department intends to grant the public easement, subject to the conditions outlined in the previously issued *Consolidated Intent to Issue* and in the Recommended Proprietary Action (entitled *Delegation of Authority*).

The final documents required to execute the easement will be sent to the Department's Division of State Lands. The Department intends to issue the easement upon satisfactory execution of those documents. **You may not begin construction of the borrow areas or the terminal groin on state-owned, sovereign submerged lands until the easement has been executed to the satisfaction of the Department.**

COASTAL ZONE MANAGEMENT:

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

WATER QUALITY CERTIFICATION:

This permit constitutes certification of compliance with state water quality standards pursuant to Section 401 of the Clean Water Act, 33 U.S.C. 1341.

OTHER PERMITS:

Authorization from the Department does not relieve you from the responsibility of obtaining other permits (Federal, State or local) that may be required for the project. When the Department received your permit application, a copy was sent to the U.S. Army Corps of Engineers (Corps) for review. The Corps will issue their authorization directly to you, or contact you if additional information is needed. If you have not heard from the Corps within 30 days from the date that your application was received by the Department, contact the nearest Corps regulatory office for status and further information. Failure to obtain Corps authorization prior to construction could subject you to federal enforcement action by that agency.

AGENCY ACTION:

The above named Permittee is hereby authorized to construct the work that is outlined in the project description and project location of this permit and as shown on the approved permit drawings, plans and other documents attached hereto. This agency action is based on the information submitted to the Department as part of the permit application, and adherence with the final details of that proposal shall be a requirement of the permit. **This permit and authorization to use sovereign submerged lands are subject to the General Conditions, General Consent Conditions and Specific Conditions, which are a binding part of this permit and authorization.** Both the Permittee and their Contractor are responsible for reading and understanding this permit (including the permit conditions and the approved permit drawings) prior to commencing the authorized activities, and for ensuring that the work is conducted in conformance with all the terms, conditions and drawings.

GENERAL CONDITIONS:

1. All activities authorized by this permit shall be implemented as set forth in the plans and specifications approved as a part of this permit, and all conditions and requirements of this permit. The Permittee shall notify the Department in writing of any anticipated deviation from the permit prior to implementation so that the Department can determine whether a modification of the permit is required pursuant to section 62B-49.008, Florida Administrative Code.
2. If, for any reason, the Permittee does not comply with any condition or limitation specified in this permit, the Permittee shall immediately provide the Bureau of Beaches and Coastal Systems and the appropriate District office of the Department with a written report containing the following information: a description of and cause of noncompliance; and the period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.
3. This permit does not eliminate the necessity to obtain any other applicable licenses or permits that may be required by federal, state, local, special district laws and regulations. This permit is not a waiver or approval of any other Department permit or authorization that may be required for other aspects of the total project that are not addressed in this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of sovereignty land of Florida seaward of the mean high-water line, or, if established, the erosion control line, unless herein provided and the necessary title, lease, easement, or other form of consent authorizing the proposed use has been obtained from the State. The Permittee is responsible for obtaining any necessary authorizations from the Board of Trustees of the Internal Improvement Trust Fund prior to commencing activity on sovereign lands or other state-owned lands.
5. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered specifically approved unless a specific condition of this permit or a formal determination under section 373.421(2), F.S., provides otherwise.
6. This permit does not convey to the Permittee or create in the Permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the Permittee. The issuance of this permit does not convey any vested rights or any exclusive privileges.
7. This permit or a copy thereof, complete with all conditions, attachments, plans and specifications, modifications, and time extensions shall be kept at the work site of the

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permitted activity. The Permittee shall require the contractor to review the complete permit prior to commencement of the activity authorized by this permit.

8. The Permittee, by accepting this permit, specifically agrees to allow authorized Department personnel with proper identification and at reasonable times, access to the premises where the permitted activity is located or conducted for the purpose of ascertaining compliance with the terms of the permit and with the rules of the Department and to have access to and copy any records that must be kept under conditions of the permit; to inspect the facility, equipment, practices, or operations regulated or required under this permit; and to sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules. Reasonable time may depend on the nature of the concern being investigated.
9. At least forty-eight (48) hours prior to commencement of activity authorized by this permit, the Permittee shall submit to the Bureau of Beaches and Coastal Systems (JCP Compliance Officer) and the appropriate District office of the Department a written notice of commencement of construction indicating the actual start date and the expected completion date and an affirmative statement that the Permittee and the contractor, if one is to be used, have read the General and Specific Conditions of the permit and understand them.
10. If historic or archaeological artifacts, such as, but not limited to, Indian canoes, arrow heads, pottery or physical remains, are discovered at any time on the project site, the Permittee shall immediately stop all activities in the immediate area that disturb the soil in the immediate locale and notify the State Historic Preservation Officer and Bureau of Beaches and Coastal Systems (JCP Compliance Officer). In the event that unmarked human remains are encountered during permitted activities, all work shall stop in the immediate area and the proper authorities notified in accordance with Section 872.02, F.S.
11. Within 30 days after completion of construction or completion of a subsequent maintenance event authorized by this permit, the Permittee shall submit to the Bureau of Beaches and Coastal Systems (JCP Compliance Officer) and the appropriate District office of the Department a written statement of completion and certification by a registered professional engineer. This certification shall state that all locations and elevations specified by the permit have been verified; the activities authorized by the permit have been performed in compliance with the plans and specifications approved as a part of the permit, and all conditions of the permit; or shall describe any deviations from the plans and specifications, and all conditions of the permit. When the completed activity differs substantially from the permitted plans, any substantial deviations shall be noted and explained on two paper copies and one electronic copy of as-built drawings submitted to the Bureau of Beaches and Coastal Systems (JCP Compliance Officer).

GENERAL CONSENT CONDITIONS:

1. Authorizations are valid only for the specified activity or use. Any unauthorized deviation from the specified activity or use and the conditions for undertaking that activity or use shall constitute a violation. Violation of the authorization shall result in suspension or revocation of the grantee's use of the sovereignty submerged land unless cured to the satisfaction of the Board.
2. Authorizations convey no title to sovereignty submerged land or water column, nor do they constitute recognition or acknowledgment of any other person's title to such land or water.
3. Authorizations may be modified, suspended or revoked in accordance with their terms or the remedies provided in Sections 253.04 and 258.46, F.S., or Chapter 18-14, F.A.C.
4. Structures or activities shall be constructed and used to avoid or minimize adverse impacts to sovereignty submerged lands and resources.
5. Construction, use or operation of the structure or activity shall not adversely affect any species that is endangered, threatened or of special concern, as listed in Rules 68A-27.003, 68A-27.004 and 68A-27.005, F.A.C.
6. Structures or activities shall not unreasonably interfere with riparian rights. When a court of competent jurisdiction determines that riparian rights have been unlawfully affected, the structure or activity shall be modified in accordance with the court's decision.
7. Structures or activities shall not create a navigational hazard.
8. Structures shall be maintained in a functional condition and shall be repaired or removed if they become dilapidated to such an extent that they are no longer functional. This shall not be construed to prohibit the repair or replacement subject to the provisions of Rule 18-21.005, F.A.C., within one year, of a structure damaged in a discrete event such as a storm, flood, accident or fire.
9. Structures or activities shall be constructed, operated and maintained solely for water dependent purposes, or for non-water dependent activities authorized under paragraph 18-21.004(1)(f), F.A.C., or any other applicable law.

SPECIFIC CONDITIONS:

1. All reports or notices relating to this permit shall be electronically submitted to the Department's JCP Compliance Officer (e-mail address: [JCP Compliance@dep.state.fl.us](mailto:JCPCompliance@dep.state.fl.us)) unless otherwise specified in the specific conditions of this permit.

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2. The Permittee shall not store or stockpile tools, equipment, materials, etc., within littoral zones or elsewhere within surface waters of the state without prior written approval from the Department. Storage, stockpiling or access of equipment on, in, over or through beds of submerged aquatic vegetation, wetlands or hardbottom is prohibited unless it occurs within a work area or ingress/egress corridor that is specifically approved by this permit. Anchoring or spudding of vessels and barges within beds of aquatic vegetation or hardbottom is also prohibited.
3. The Permittee shall not conduct project operations or store project-related equipment in, on or over dunes, or otherwise impact dune vegetation, outside the approved staging, beach access and dune restoration areas designated in the permit drawings.
4. Prior to placement of material from the offshore borrow areas within the Manasota Key Beach Fill Berm, from R-9 to R-15.4, an Erosion Control Line (ECL) shall be executed and recorded.
5. ***Notice to Proceed Requirements.*** No work shall be conducted under this permit until the Permittee has received a written notice to proceed from the Department **for each event**. At least 30 days prior to the requested date of issuance of the notice to proceed, the Permittee shall submit a written request for a Notice to Proceed and the following items for review and approval by the Department:
 - a. An electronic copy of detailed ***final construction plans and specifications*** for all authorized activities. The plans and specifications must be consistent with the project description of this permit and the attached permit drawings, and shall also be certified by a professional engineer (P.E.), who is registered in the State of Florida. The plans and specifications shall include a description of the dredging and construction methods to be utilized and drawings and surveys that show all biological resources and work spaces (e.g., anchoring areas, pipeline corridors, staging areas, boat access corridors, etc.) to be used for this project.

For maintenance activities including terminal groin adjustments or repairs, hotspot placement, sand transfer activities and activities authorized to occur in Rum Cove Lagoon in order to maintain the flushing connection, details of the activity (such as restoring the historic connection for Rum Cove Lagoon, or transferring sand from accretional area X to erosional area Y), specific details of construction and construction drawings shall be provided to the Department for review and approval prior to the issuance of the NTP;

- b. ***Biological Opinion.*** In accordance with Section 161.041(5), F.S., no construction that could result in take of threatened and marine turtles shall begin until the federal incidental take authorization is issued in accordance with the federal Endangered Species Act. All terms and conditions and conservation measures in the applicable

- federal incidental take authorization, if not addressed in the existing conditions listed below, shall be incorporated into this permit through a permit modification prior to construction;
- c. **Public Easement.** Documentation that the Public Easement has been executed and recorded to the satisfaction of the Department;
 - d. **Turbidity monitoring qualifications.** Construction at the project site shall be monitored closely by an experienced, independent third party to assure that turbidity levels do not exceed the compliance standards established in this permit. Also, an individual familiar with beach construction techniques and turbidity monitoring shall be present at all times when fill material is discharged on the beach. This individual shall have authority to alter construction techniques or shut down the dredging or beach construction operations if turbidity levels exceed the compliance standards established in this permit. The names and qualifications of those individuals performing these functions along, with 24-hour contact information shall be submitted for approval;
 - e. A **Scope of Work** for the turbidity monitoring to ensure that the right equipment is available to conduct the monitoring correctly at any location, and under any conditions;
 - f. **Biological monitoring qualifications:** Biological monitoring qualifications shall be submitted to the JCP Compliance Officer for review. If additional monitoring team(s) are subcontracted, or new staff is added to the monitoring team, proposed changes and qualifications shall be submitted to the JCP Compliance Officer for review at least 30 days prior the sampling event. The Permittee's selected biological monitoring firm is fully responsible for training of new staff members and subcontractors as well as the QA/QC verification of their work;
 - g. The approved **Physical Monitoring Plan**, as outlined in Specific Condition 26 Any revisions to the plan that are not already approved through a permit modification prior to the NTP request will require review and approval by the Department through a modification;
 - h. The approved sediment **QA/QC** plan (dated September 15, 2014). Any changes to the plan shall be authorized through a permit modification; and
 - i. Documentation that the **Erosion Control Line** (ECL) for the segment from R-9 to R-15.4 (the northern limit of Stump Pass State Park) has been executed and recorded, prior to placement of material from the offshore borrow areas within this segment.

6. ***Pre-Construction Conference.*** The Permittee shall conduct a pre-construction conference to review the specific conditions and monitoring requirements of this permit with Permittee's contractors, the engineer of record, those responsible for turbidity monitoring and the JCP Compliance Officer (or designated alternate). In order to ensure that appropriate representatives are available, at least twenty-one (21) days prior to the intended commencement date for the permitted construction, the Permittee is advised to contact the Department, and the other agency representatives listed below:

JCP Compliance Officer
e-mail: JCPCCompliance@dep.state.fl.us

Imperiled Species Management Section
Florida Fish & Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600
phone: (850) 922-4330
fax: (850) 921-4369 or email: marineturtle@myfwc.com

The Permittee is also advised to schedule the pre-construction conference at least a week prior to the intended commencement date. At least seven (7) days in advance of the pre-construction conference, the Permittee shall provide written notification, advising the participants (listed above) of the **agreed-upon** date, time and location of the meeting, and also provide a meeting agenda and a teleconference number.

7. When discharging slurried sand onto the beach from a pipeline, the Permittee shall employ best management practices (BMPs) to reduce turbidity. At a minimum, these BMPs shall include the following:
- a. Use of shore-parallel sand dike to promote settlement of suspended sediment on the beach before return water from the dredged discharge reenters the Gulf of Mexico; and
 - b. A minimum set-back of 50 feet from open water, or at the landward end of the beach berm (without disturbing the dune), whichever is less, for the pipeline discharge location.
8. Sediment quality shall be assessed as outlined in the Sediment QA/QC Plan dated September 15, 2014 (approved on December 3, 2014). Any occurrences of placement of material not in compliance with the Plan shall be handled according to the protocols set forth in the Sediment QA/QC Plan. The sediment testing results shall be submitted to the JCP Compliance Officer within 90 days following the completion of beach construction. The Sediment QA/QC Plan include the following:

- a. If during construction, the Permittee or Engineer determines that the beach fill material does not comply with the sediment compliance specifications, measures shall be taken to avoid further placement of noncompliant fill, and the sediment inspection results shall be reported to the Department's JCP Compliance Officer.
 - b. The Permittee shall submit post-construction sediment testing results and an analysis report as outlined in the Sediment QA/QC plan to the Department's JCP Compliance Officer within 90 days following beach construction. The sediment testing results shall be certified by a P.E. or professional geologist (P.G.) from the testing laboratory. A summary table of the sediment samples and test results for the sediment compliance parameters as outlined in Table 1 of the Sediment QA/QC plan shall accompany the complete set of laboratory testing results. A statement of how the placed fill material compares to the sediment analysis and volume calculations from the geotechnical investigation shall be included in the sediment testing results report.
 - c. A post-remediation report containing the site map, sediment analysis, and volume of noncompliant fill material removed and replaced shall be submitted to the Department's JCP Compliance Officer within 7 days following completion of remediation activities.
9. **Cultural Resources.** Three locations within the project area have been identified as potential significant cultural resources, and are marked as avoidance areas in the approved permit drawings. Construction activities that include, but are not limited to, anchoring, dredging, spudding, pipeline placement and excavation shall be avoided in these areas.

Fish and Wildlife Protection Conditions

10. In accordance with Sections 161.041 (5) and 379.2431 (1), F.S., no work shall be conducted under this permit until the Biological Opinions from the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (FWS) have been issued and incidental take has been authorized. The activities proposed in this project have been authorized in the U.S. Fish and Wildlife Service (FWS) Incidental Take Authorization and Biological Opinion dated March 6, 2015 (04EF2000-2015-CPA-0030). However, if any modifications to the Biological Opinions require additional Fish and Wildlife Protection Conditions that are not currently listed below, no construction shall begin until the permit has been modified to include those additional conditions.
11. The pre-construction conference held between the contractors, the engineer and staff representative of the Department (see Specific Condition 6 above) shall also include the Marine Turtle Monitor/permit holder, Bird Monitors and staff representatives of the Florida Fish and Conservation Commission (FWC). The purpose of this portion of the

meeting is to ensure that the Permittee/Contractor fully understands the wildlife protection measures and site-specific measures that need to be taken before, during and after construction.

- a. The Permittee/Contractor's Environmental Protection Plan (EPP) shall include details of monitoring for nesting marine turtles and nesting seabirds and shorebirds onsite during construction. The EPP shall be submitted for review and comment to the FWC prior to the pre-construction conference.
- b. The EPP and notification of the pre-construction conference shall be sent to the FWC at least 10 business days before the date of that meeting per the information in the attached FWC contact information exhibit, and also by email to MarineTurtle@myfwc.com.

12. **In-water Activity.** The Permittee shall adhere to the following conditions for all in-water activity:

- a. All personnel associated with the project shall be instructed about the presence of marine turtles and manatees, and the need to avoid collisions with (and injury to) these protected marine species. The Permittee/Contractor shall advise all construction personnel that there are civil and criminal penalties for harming, harassing or killing manatees or marine turtles, which are protected under the Endangered Species Act, the Marine Mammal Protection Act, the Marine Turtle Protection Act and the Florida Manatee Sanctuary Act.
- b. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels shall follow routes of deep water whenever possible.
- c. Siltation or turbidity barriers, if used, shall be made of material in which manatees and marine turtles cannot become entangled, shall be properly secured and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers shall not impede manatee or marine turtle movement.
- d. All on-site project personnel are responsible for observing water-related activities for the presence of marine turtles and manatees. All in-water activities, including vessel operations, shall be shut down if a marine turtle or manatee comes within 50 feet of the activity. Activities shall not resume until the animal(s) has moved beyond a 50-foot radius of the project operation, or until 30 minutes elapses if the animal(s) has not reappeared within 50 feet of the operation. Animals shall not be herded away or harassed into leaving.

- e. Any collision with, or injury to, a marine turtle or manatee shall be reported immediately to the FWC Hotline at 1-888-404-3922, and to FWC at ImperiledSpecies@myFWC.com. Any collision with, and/or injury to, a marine turtle shall also be reported immediately to the Sea Turtle Stranding and Salvage Network (STSSN) at SeaTurtleStranding@myfwc.com.
 - f. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs shall be removed by the Permittee upon completion of the project. Temporary signs that have already been approved for this use by the FWC shall be used. One sign that reads *Caution Boaters: Watch for Manatees* shall 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 shall be posted in a location prominently visible to all personnel engaged in water-related activities. These signs can be viewed at MyFWC.com/manatee. Questions concerning these signs can be sent to FWC at ImperiledSpecies@myFWC.com.
13. **Hopper Dredging.** In the event a hopper dredge is utilized, the following requirements shall be met:
- a. Handling of sea turtles captured during hopper dredging activities shall be conducted only by persons with prior experience and training in these activities and who are duly authorized to conduct such activities through a valid Marine Turtle Permit issued by the FWC, pursuant to Chapter 68E-1, F.A.C.
 - b. Dredging pumps shall be disengaged by the operator, or the draghead bypass valve shall be open and in use when the dragheads are not firmly on the bottom in order to minimize impingement or entrainment of sea turtles within the water column. This precaution is especially important during the cleanup phase of dredging operations.
 - c. A state-of-the-art rigid deflector draghead shall be used on all hopper dredges at all times of the year.
 - d. The STSSN Coordinator shall be notified at 1-904-573-3930 or via e-mail at Allen.Foley@myfwc.com at the start-up and completion of hopper dredging operations. The Permittee shall contact the STSSN at seaturtlestranding@myfwc.com if a sea turtle is captured or sea turtle parts are recovered.
14. **Trawling.** If relocation trawling or non-capture trawling is required, it shall be implemented in accordance with the applicable NMFS Biological Opinion and Incidental Take authorization.

- a. Any activity involving the use of nets to harass and/or to capture and handle marine turtles in Florida waters requires a Marine Turtle Permit from FWC.
- b. The Permittee or their contractor shall e-mail (MTP@MyFWC.com) weekly reports to the Imperiled Species Management Section on Friday of each week that trawling is conducted in Florida waters. These weekly reports shall include the species and number of turtles captured in Florida waters, their general health and release information. A summary (using FWC provided Excel spreadsheet) of all trawling activity (including non-capture trawling), all turtles captured in Florida waters (including all measurements), the latitude and longitude (in decimal degrees) of captures and tow start-stop points and times for the start-stop points of the tows (including those tows on which no turtles are captured) shall be submitted to MTP@myfwc.com by January 15 of the following year or at the end of the project.

15. Beach Related Activities.

- a. *Beach Driving.* All vehicles shall be operated in accordance with the FWC's Best Management Practices for Operating Vehicles on the Beach (<http://myfwc.com/conservation/you- conserve/wildlife/beach-driving/>). Specifically, the vehicle shall be operated at a speed <6 mph and run at or below the high-tide line. All personnel associated with the project shall be instructed about the potential presence of shorebirds and marine turtles and the need to avoid Take of (including disturbance to) these protected species.
- b. *Beach Maintenance.* All derelict concrete, metal, coastal armoring material and other debris shall be removed from the beach to the maximum extent practicable prior to any material placement. If debris removal activities will take place during shorebird or sea turtle nesting seasons, the work shall be conducted during daylight hours only and shall not commence until completion of daily shorebird or sea turtle surveys each day. If flightless shorebird young are present within or adjacent to the work zone or equipment travel corridor, a Shorebird Monitor shall be present during the operation to ensure that equipment does not operate within 300 feet of the flightless young. It is the Permittee/Contractor's responsibility to ensure that no chicks are in the path of the moving vehicles and that the vehicles leave no tracks capable of trapping flightless chicks. All excavations and temporary alteration of beach topography shall be filled or leveled to the natural beach profile prior to 9:00 p.m. each day. The beach surface shall be inspected subsequent to completion of the project, and all tracks or impressions left by project vehicles or heavy equipment shall be removed.
- c. *Equipment Storage and Placement.* Staging areas for construction equipment shall be located off the beach, if off-beach staging areas are available. Nighttime storage of construction equipment not in use shall be located off the beach to minimize disturbance to shorebird and marine turtle nesting and hatching activities. In addition,

all construction pipes that are placed on the beach shall be located as far landward as possible without compromising the integrity of the existing or reconstructed dune system. Pipes placed parallel to the dune shall be 5 to 10 feet away from the toe of the dune. Temporary storage of pipes shall be located off the beach to the maximum extent possible. If it will be necessary to extend construction pipes past a known shorebird nesting site or over-wintering area for piping plovers, then whenever possible, those pipes shall be placed landward of the site before birds are active in that area. No pipe or sand shall be placed seaward of a shorebird nesting site during the shorebird nesting season.

16. **Shorebird Protection Conditions.** Shorebird surveys shall be conducted by trained, dedicated individuals (Bird Monitor) with proven shorebird identification skills and avian survey experience.
- a. *Selection of Bird Monitors.* A list of Bird Monitors with their contact information, summary of qualifications including bird identification skills and avian survey experience shall be provided to the FWC. This information shall be submitted to the FWC Regional Biologist (see Exhibit 1) prior to any construction or shorebird surveys for review and consultation. Bird Monitors shall meet the following minimum qualifications.
- i. Ability to identify all species of beach-nesting birds that nest in the project area by sight and sound.
 - ii. Ability to identify breeding/territorial behaviors and find nests of shorebirds and seabirds that occur in the project area.
 - iii. Ability to identify habitats preferred by shorebirds and seabirds nesting in the project area.
 - iv. Completed full introductory course training (online or webinar) and annually completes refresher course training (online or webinar) on the *Breeding Bird Protocol for Florida's Seabirds and Shorebirds*, including training in data entry. Training resources can be found on the Florida Shorebird Database website (<https://public.myfwc.com/crossdoi/shorebirds/links.html>).
 - v. Familiar with FWC beach driving guidelines: www.myfwc.com/conservation/you-conserve/wildlife/beach-driving.
 - vi. Annually completes refresher course training (online or webinar) for the *Breeding Bird Protocol for Florida's Seabirds and Shorebirds*, including training in data entry.

- vii. Previously participated in beach-nesting bird surveys associated with FWC, Audubon or FWS in Florida (please provide references).
 - viii. Experience posting beach-nesting bird sites, consistent with Florida Shorebird Alliance (FSD) Guidelines (<http://flshorebirdalliance.org/resources/instructions-manuals.aspx>).
 - ix. Registered contributor to the Florida Shorebird Database.
- b. The Bird Monitor(s) shall review and become familiar with the general information on the FWC's Florida Shorebird Database (FSD) website (www.FLShorebirdDatabase.org). They shall use the data collection protocol and implement data entry procedures as outlined on that website. An outline of data to be collected, including downloadable field data sheets, is available on the website.
 - c. Breeding season varies by species. Most species have completed the breeding cycle by September 1, but flightless young may be present through September. The following dates are based on the best available information regarding ranges and habitat use by species for this project: February 15 – September 1.
 - d. Surveys during the breeding season shall begin on the first day of the breeding season, or 10 days before any site work begins, whichever is later. Surveys shall be conducted through August 31, or until all breeding activity has concluded, whichever is later.
 - e. During the breeding season, the Bird Monitor(s) shall survey all potential beach-nesting bird habitats that may be affected by construction or pre-construction activities. The Bird Monitor(s) shall establish one or more shorebird survey routes in the FSD website to cover these areas.
 - f. During the pre-construction and construction phases of the project, the Bird Monitor(s) shall complete surveys on a daily basis to detect breeding activity and the presence of flightless chicks before (1) equipment is moved to the area, (2) vehicles are operated in the area or (3) any other activities occur that have the potential to disrupt breeding behavior or cause harm to the birds or their eggs or young. Once construction is completed, and all personnel and equipment have been removed from the beach, surveys may be conducted at weekly intervals.
 - g. The Bird Monitor(s) shall survey the project area by walking and looking for evidence of (1) shorebirds exhibiting breeding behavior, (2) shorebird chicks or (3) shorebird juveniles, as outlined in the FSD's Breeding Bird Protocol for Shorebirds and Seabirds. The Bird Monitor(s) shall use binoculars for these surveys.

- the ropes shall be at least 2.5 feet above the ground. If pedestrian pathways are approved by the FWC Regional Species Conservation Biologist within the 300-foot buffer zone, these pathways shall be clearly marked. The Bird Monitor(s) shall ensure that the posting is maintained in good repair until breeding is completed or terminated. Although solitary nesters may leave the buffer zone with their chicks, the posted area continues to provide a potential refuge for the family until breeding is complete. Breeding is not considered to be completed until all chicks have fledged.
- d. The Bird Monitor(s) shall ensure that no construction activities, pedestrians, moving vehicles or stockpiled equipment occur within the buffer area. The Bird Monitor(s) shall designate and mark travel corridors outside the buffer areas so as not to cause disturbance to breeding birds. Heavy equipment, other vehicles, or pedestrians may go past breeding areas in these corridors. However, other activities such as stopping or turning heavy equipment and vehicles shall be prohibited within the designated travel corridors adjacent to the breeding site.
 - e. If flightless shorebird young are present within or adjacent to the equipment travel corridor, a Bird Monitor shall be present during the operation to ensure that equipment does not operate within 300 feet of the flightless young. It is the Permittee/Contractor's responsibility to ensure that no chicks are in the path of the moving vehicles and that the vehicles leave no tracks capable of trapping flightless chicks.
 - f. The FWC recommends that some activity in the travel corridor is maintained on a daily basis in order to discourage birds from nesting within the travel corridor. These activities shall not be allowed to disturb shorebirds nesting on site or interfere with sea turtle nesting, especially if the corridors are established before construction has started.
 - g. *Notification.* If the Bird Monitor(s) find that shorebirds are breeding within the project area, he or she shall ensure that an informational bulletin board is placed and maintained in the construction staging area. This bulletin board shall display a location map of the construction site, depict the location(s) of the bird breeding areas and include a clearly visible warning stating: "NESTING BIRDS ARE PROTECTED BY LAW INCLUDING THE FLORIDA ENDANGERED AND THREATENED SPECIES ACT AND THE STATE AND FEDERAL MIGRATORY BIRD ACTS".
18. **Marine Turtle Nest Surveys and Relocation Conditions.**
- For sand placement during marine turtle nesting season: (April 15 – November 15), daily early morning (before 9 a.m.) surveys shall be conducted and eggs shall be relocated per the requirements below until completion of sand placement. (Note: marine turtle

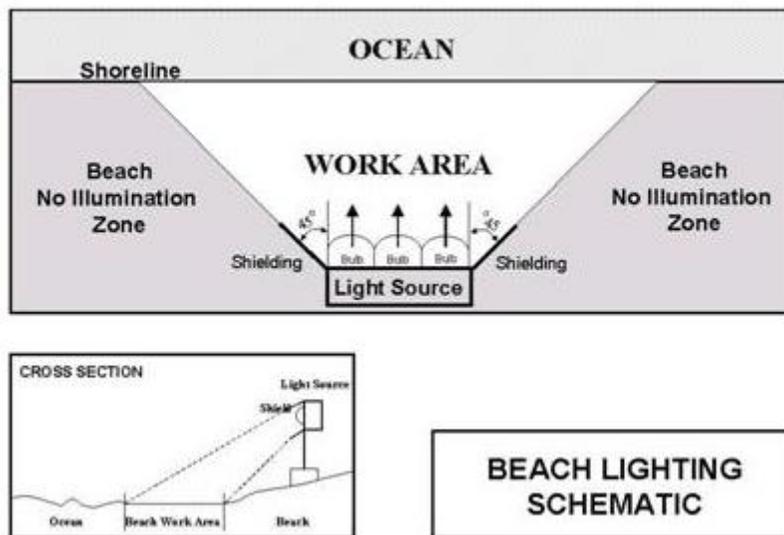
monitors shall not enter posted shorebird buffer areas to conduct monitoring or to relocate nests.) Monitoring and reporting shall continue throughout the nesting season and shall be conducted according to Post-construction Monitoring and Reporting Marine Turtle Protection Conditions included in this document.

- a. Turtle Monitors. Nesting surveys and egg relocations shall only be conducted by persons with prior experience and training in these activities and who are duly authorized to conduct such activities through a valid permit issued by FWC, pursuant to Chapter 68E-1, F.A.C. Please contact FWC's Marine Turtle Management Program in Tequesta at MTP@myfwc.com for information on the permit holder in the project area. It is the responsibility of the Permittee to ensure that nesting surveys are completed by the authorized Marine Turtle Permit Holder. Nesting surveys shall be conducted daily between sunrise and 9 a.m.
- b. Nesting surveys shall be initiated 65 days prior to sand placement activities, or by the beginning of marine turtle nesting season (April 15 – November 15), whichever is later. Nesting surveys shall continue daily through the end of the project, or November 15, or until two weeks after the last crawl in the project area, whichever is earlier. If nests are laid in areas where they may be affected by sand placement activities, eggs shall be relocated per the requirements listed in these conditions. Monitoring shall resume for subsequent nesting seasons according to Post-construction Monitoring and Reporting Marine Turtle Protection Conditions included in this document.
- c. Only those nests in the area where sand placement will occur shall be relocated. Nest relocation shall not occur upon completion of sand placement. Nests requiring relocation shall be moved no later than 9:00 a.m., the morning following deposition, to a nearby self-release beach site in a secure setting, where artificial lighting would not interfere with hatchling orientation. Relocated nests shall not be placed in organized groupings. Relocated nests shall be randomly staggered along the length and width of the beach, in settings that are not expected to experience daily inundation by high tides, that are not known to routinely experience severe erosion and egg loss and that are not subject to artificial lighting. Nest relocations in association with construction activities shall cease when sand placement activities no longer threaten nests.
- d. Nests deposited within areas, where construction activities have ceased or will not occur for 65 days, and nests laid in the nourished berm prior to tilling shall be marked and left in place. The turtle permit holder shall install an on-beach marker at the nest site and/or a secondary marker at a point as far landward as possible to assure that future location of the nest will be possible should the on-beach marker be lost. No activity shall occur within this area, nor shall any activities occur that could result in

- impacts to the nest. Nest sites shall be inspected daily to assure that nest markers remain in place and the nest has not been disturbed by the project activity.
- e. If terminal groin construction, repair or alteration occurs during the sea turtle nesting season, it shall be conducted during daylight hours only, and may proceed only after the FWS has issued an incidental take authorization for that activity, and in accordance with the following requirements:
 - i. Daily early morning surveys shall be conducted within the travel corridor, construction and staging area.
 - ii. A barrier (e.g., hay bales, silt screens) sufficient to prevent adult and hatchling sea turtles from accessing the project site shall be installed in a 100-foot buffer around the perimeter of the project site. The barrier shall be placed parallel to shore, at MHW, as close to the groin as feasible during the period from sunset to sunrise.
 - iii. On-beach access to the construction site shall be restricted to the wet sand below MHW to the maximum extent possible. Travel corridors on the beach to the MHWL shall be delineated. Nests laid within the travel corridor that would impede traffic shall be relocated per the requirements listed above. Nests laid in adjacent areas shall be marked and avoided per the requirements listed below. Staging areas for construction equipment shall be located off the beach to the maximum extent possible.
 - iv. No nighttime construction may occur during the nesting season.
 - v. Material stockpiled on the beach shall only occur within the 200-foot barrier (100-foot area on either side). Construction activities shall not occur in any location prior to completion of the outlined sea turtle protection measures. If any nesting turtles are sighted on the beach, construction activities shall cease immediately until the turtle has returned to the water and the sea turtle permit holder responsible for nest monitoring has marked the nest. All activities shall avoid the marked nest areas.
19. **Marine Turtle or Nest Encounters.** Upon locating a dead or injured sea turtle adult, hatchling or egg that may have been harmed or destroyed as a direct or indirect result of the project, the Permittee shall notify FWC Wildlife Alert at 1-888-404-FWCC (3922). Care shall be taken in handling injured marine turtles or eggs to ensure effective treatment or disposition, and in handling dead specimens to preserve biological materials in the best possible state for later analysis. In the event a sea turtle nest is excavated during construction activities, but not as part of the authorized nest relocation process outlined in these specific conditions, the permitted person responsible for egg relocation

for the project shall be notified immediately so the eggs can be moved to a suitable relocation site.

20. **Project Lighting.** Direct lighting of the beach and nearshore waters during the marine turtle nesting season (April 15 – November 15) shall be limited to the immediate construction area and shall comply with safety requirements. Lighting on offshore or onshore equipment shall be minimized through reduction, shielding, lowering and appropriate placement to avoid excessive illumination of the water's surface and nesting beach, while meeting all Coast Guard, EM 385-1-1 and OSHA requirements. Light intensity of lighting equipment shall be reduced to the minimum standard required by OSHA for General Construction areas, in order to avoid misdirection of sea turtles. Shields shall be affixed to the light housing and be large enough to block light from all lamps from being transmitted outside the construction area (see Figure below).



21. **Fill Restrictions.** During the sea turtle nesting season (April 15 – November 15), the contractor shall not extend the beach fill more than 500 feet along the shoreline between dusk and the following day until the daily nesting survey has been completed and the beach cleared for fill advancement. An exception to this may occur if there is a permitted sea turtle monitor present on-site to ensure no nesting and hatching sea turtles are present within the extended work area. If the 500-foot length limitation is not feasible for the project, an agreed upon distance shall be established during the pre-construction conference. Once the beach has been cleared and the necessary nest relocations have been completed, the contractor shall be allowed to proceed with the placement of fill during daylight hours until dusk, at which time the 500-foot length limitation shall apply.

22. **Compaction Sampling.** Sand compaction shall be monitored in the area of sand placement immediately after completion of each beach placement event and prior to April 15th for three (3) subsequent years, and shall be monitored in accordance with a protocol agreed to by the FWC and the Permittee. The requirement for compaction monitoring can be eliminated if the decision is made to till regardless of post-construction compaction levels. Out-year compaction monitoring and remediation are not required if placed material no longer remains on the beach. At a minimum, the protocol provided under a. and b. below shall be followed. If the average value for any depth exceeds 500 pounds per square inch (psi) for any two or more adjacent stations, then that area shall be tilled immediately prior to the following date listed above. If values exceeding 500 psi are distributed throughout the project area but in no case do those values exist at two adjacent stations at the same depth, then the Permittee shall consult with the FWC to determine if tilling is required. If a few values exceeding 500 psi are present randomly within the project area, tilling shall not be required.
- a. Compaction sampling stations shall be located at 500-foot intervals along the project area. One station shall be at the seaward edge of the dune/bulkhead line (when material is placed in this area), and one station shall be midway between the dune line and the high water line (normal wrack line).
 - b. At each station, the cone penetrometer shall be pushed to depths of 6, 12 and 18 inches three times (i.e., three replicates at each depth). Material may be removed from the hole if necessary to ensure accurate readings of successive levels of sediment. The penetrometer may need to be reset between pushes, especially if sediment layering exists. Layers of highly compact material may lie over less compact layers. Replicates shall be located as close to each other as possible, without interacting with the previous hole and/or disturbed sediments. The three replicate compaction values for each depth shall be averaged to produce final values for each depth at each station. Reports shall include all 18 values for each transect line, and the final 6 averaged compaction values.
 - c. No compaction sampling shall occur within 300 feet of any shorebird nest.
 - d. Any vehicles operated on the beach in association with compaction surveys shall operate in accordance with the FWC's Best Management Practices for Operating Vehicles on the Beach (<http://myfwc.com/conservation/you-protect/wildlife/beach-driving/>).
23. **Tilling Requirements.** If tilling is required, as specified above, the area shall be tilled to a depth of 24 inches. All tilling activity shall be completed prior to the marine turtle nesting season. If tilling occurs during shorebird nesting season, shorebird surveys prior to tilling shall be required per the Shorebird Conditions included within this document. It is the responsibility of the contractors (and ultimately the Permittee) to avoid tilling,

scarp removal or dune vegetation planting in areas where nesting birds are present. Each pass of the tilling equipment shall be overlapped to allow thorough and even tilling. If the project is completed during the marine turtle nesting season, tilling shall not be performed in areas where nests have been left in place or relocated. If compaction measurements are taken, a report on the results of the compaction monitoring shall be submitted electronically to FWC at marineturtle@myfwc.com prior to any tilling actions being taken.

- a. No tilling shall occur within 300 feet of any shorebird nest.
 - b. If flightless shorebird young are present within the work zone or equipment travel corridor, a Bird Monitor shall be present during the operation to ensure that equipment does not operate within 300 feet of the flightless young.
 - c. A relatively even surface, with no deep ruts or furrows, shall be created during tilling. To do this, chain-linked fencing or other material shall be dragged over those areas as necessary after tilling.
 - d. Tilling shall occur landward of the wrack line and all vegetated areas three (3) square feet or greater shall be avoided, and a three (3) foot buffer shall be maintained around the vegetated areas. The slope between the mean high water line and the mean low water line shall be maintained in such a manner as to approximate natural slopes.
 - e. Any vehicles operated on the beach in association with tilling shall operate in accordance with the FWC's Best Management Practices for Operating Vehicles on the Beach (<http://myfwc.com/conservation/you- conserve/wildlife/beach-driving/>).
24. **Escarpment Surveys.** Visual surveys for escarpments along the project area shall be made immediately after completion of sand placement and during March 15 to April 15 for three (3) subsequent years if placed sand still remains on the beach. Escarpments that interfere with sea turtle nesting or that exceed 18 inches in height for a distance of at least 100 feet shall be leveled and the beach profile shall be reconfigured to minimize scarp formation by April 15. Any escarpment removal shall be reported by location. If the project is completed during the sea turtle nesting and hatching season, escarpments may be required to be leveled immediately, while protecting nests that have been relocated or left in place. The Permittee shall contact FWC immediately if subsequent reformation of escarpments occurs during the nesting and hatching season and the escarpments interfere with sea turtle nesting or exceed 18 inches in height for a distance of 100 feet. The FWC would then determine the appropriate action to be taken. If it is determined that escarpment leveling is required during the nesting or hatching season, the FWC shall provide a brief written authorization that describes methods to be used to reduce the likelihood of impacting existing nests. An annual summary of escarpment surveys and actions taken shall be submitted electronically to marineturtle@myfwc.com along with

the annual summary as described below. If escarpment removal occurs during shorebird breeding season, shorebirds surveys shall be required per the Shorebird Conditions included within this document prior to removal. (NOTE: Out-year escarpment monitoring and remediation are not required if placed material no longer remains on the dry beach).

- a. No heavy equipment shall operate within 300 feet of any shorebird nest.
- b. If flightless shorebird young are present within the work zone or equipment travel corridor, a Bird Monitor shall be present during the operation to ensure that equipment does not operate within 300 feet of the flightless young.
- c. Any vehicles operated on the beach in association with escarpment surveys or removal shall operate in accordance with the FWC's Best Management Practices for Operating Vehicles on the Beach (<http://myfwc.com/conservation/you-conserve/wildlife/beach-driving/>).

25. Post-construction Shorebird and Marine Turtle Conditions, Monitoring and Reporting Conditions.

- a. Shorebirds: If beach cleaning will occur on the nourished beach, a minimum of 30% of the biotic material within the wrack line shall be left on the beach post-cleaning at the strand line in a natural configuration to ensure that the nourished beach re-establishes its function as foraging habitat for shorebirds. This shall occur for as long as the placed sand remains on the beach.
- b. Marine Turtles: Reports on all marine turtle nesting activity shall be provided for the initial marine turtle nesting season (April 15 – November 15) and for up to two additional nesting seasons as follows:
 - i. For the remainder of the nesting season immediately following construction, and the following year, the number and type of emergences (nests or false crawls) shall be reported per species in accordance with Table 1 below. An additional year of nesting surveys may be required if nesting success for any species on the nourished beach is less than 40%.
 - ii. For the remainder of the nesting season immediately following construction, reproductive success shall be reported per species in accordance with Table 1 below. Reproductive success shall be reported for all loggerhead, Kemp's ridley, green and leatherback nests.
 - iii. In the event that the reproductive success documented by species meets or exceeds required criteria (outlined in Table 1 below) for each species, monitoring

for reproductive success shall be recommended, but not required for the second year post-construction.

- iv. Monitoring of nesting activity in the seasons following construction shall include daily surveys and any additional measures authorized by the FWC. Summaries shall include all crawl activity, nesting success rates, hatching success of all relocated nests, hatching success of a representative sampling of nests left in place (if any) by species, project name and applicable project permit numbers and dates of construction.
 - v. **Lighting Surveys.** Two lighting surveys shall be conducted of all artificial lighting visible from the restored or nourished berm. The first survey shall be conducted between May 1 and May 15 of the first nesting season following construction or immediately after placement if construction is not completed until after May 15, and a second survey between July 15 and August 1. The survey shall be conducted by the Permittee and shall be conducted to include a landward view from the seaward most extent of the new beach profile. The survey shall follow standard techniques for such a survey and include number and type of visible lights, location of lights and photo documentation. For each light source visible, the Permittee shall document that the property owner(s) have been notified of the problem light and have been provided with recommendations for correcting the light. Recommendations must be in accordance with the Florida Model Lighting Ordinance for Marine Turtle Protection (Chapter 62B-55, F.A.C.) and local lighting restrictions. A report summarizing all lights visible shall be submitted to FWC Imperiled Species Management Section at marineturtle@myfwc.com and copied to JCPCCompliance@dep.state.fl.us by the 1st of the month following survey. A summary report documenting what corrective actions have been taken shall also be submitted by December 15 of that year. After the annual report is completed, a meeting shall be set up with the Permittee or local sponsor, county or municipality and FWC to discuss the survey report as well as any documented sea turtle disorientations in or adjacent to the project area.
- c. Data shall be reported for the nourished areas in accordance with the Table 1 below and shall include number of nests lost to erosion or washed out. Summaries of nesting activity shall be submitted in electronic format (Excel spreadsheets) to the FWC Imperiled Species Management Section at marineturtle@myfwc.com and copied to JCPCCompliance@dep.state.fl.us. All summaries shall be submitted by January 15 of the following year. The FWC Excel spreadsheet is available upon request from marineturtle@myfwc.com.

Table 1. Marine Turtle Monitoring for Beach Placement of Material

Metric	Duration	Variable	Criterion
Nesting Success	Year of construction and one year post construction if placed sand remains on beach. Up to three years if variable does not meet criterion. ^{1 and 2}	Number of nests and non-nesting emergences by day by species	40% or greater
Hatching Success	Year of construction. Additional one to two years post construction if placed sand remains on beach and variable does not meet criterion. ^{1 and 2}	Number of hatchlings by species to completely escape egg	Average of 60% or greater (data must include washed out nests)
Emergence Success	Year of construction. Additional one to two years post construction if placed sand remains on beach and variable does not meet success criterion. ^{1 and 2}	Number of hatchlings by species to emerge from nest onto beach	Average must not be significantly different than the average hatching success
Disorientation	Year of construction and one to three years post construction if placed sand remains on beach. ^{1 and 2}	Number of nests and individuals that misorient or disorient	
Lighting Surveys	Two surveys the year following construction, one survey between May 1 and May 15 and second survey between July 15 and August 1. ^{1 and 2}	Number, location and photographs of lights visible from the nourished berm, corrective actions and notifications made	100% reduction in lights visible from nourished berm within one to two month period
Compaction	Not required if the beach is tilled prior to nesting season each year placed sand remains on beach.	Shear resistance	Less than 500 psi
Escarpment Surveys	Weekly during nesting season for up to three years, each year that placed sand remains on the beach. ²	Number of scarps 18 inches or greater extending for more than 100 feet that persist for more than 2 weeks	Successful remediation of all persistent scarps as needed

Notes: ¹Not required for maintenance dredging.

²Not required if dredged sand is placed in the nearshore swash or littoral zones only.

MONITORING REQUIRED:

26. **Physical Monitoring.** The approved Physical Monitoring Plan can be revised at any later time by written request of the Permittee and with the written approval of the Department. If subsequent to approval of the Monitoring Plan there is a request for modification of the permit, the Department may require revised or additional monitoring requirements as a condition of approval of the permit modification. The Permittee shall conduct the activities and reporting as described in the approved Physical Monitoring Plan dated September 17, 2014, and the additional reporting as described below:
- a. The report shall summarize and discuss the data, the performance of the project (*which includes the performance of the fill placement, terminal groin and the hydraulic monitoring of the Stump Pass Channel*), and identify erosion and accretion patterns within the monitored area. Results shall be analyzed for patterns, trends, or changes between annual surveys and cumulatively since project construction. In addition, the report shall include a comparative review of project performance to performance expectations and identification of adverse effects attributable to the project. The report shall specifically include:
 - i. A record of the volume and location of all beach fill or inlet sand bypassing material placed within the project area;
 - ii. The volume and percentage of advance nourishment lost since the last beach nourishment project as measured landward of the MHW line of the most recent survey;
 - iii. The most recent MHW shoreline positions (feet) in comparison with the design profile at each individual monument location;
 - iv. The MHW shoreline position changes (feet) relative to the pre-construction survey at each individual monument location for all the monitoring periods;
 - v. The total measured remaining volume (cy) in comparison with the total predicted remaining volume (cy) above the MHW line and above the Depth of Closure for the entire project area over the successive monitoring periods; and,
 - vi. Other shoreline position and volumetric analysis the Permittee or engineer deem useful in assessing, with quantitative measurements, the performance of the project.
 - b. A digital copy of the monitoring report and a digital file of the survey data shall be submitted to the JCP Compliance Officer in Tallahassee. Failure to submit reports and data in a timely manner constitutes grounds for revocation of the permit. When

- submitting any monitoring information to the Department's JCP Compliance Officer, please include a transmittal cover letter clearly labeled with the following at the top of each page: **"This monitoring information is submitted in accordance with the approved Monitoring Plan for Permit No. 0194790-017-JC, for the monitoring period [XX]."**
- c. The Permittee shall also conduct all activities of the project in compliance with the Operations, Monitoring and Maintenance Plan (attached).
27. **Biological monitoring.** All submerged aquatic vegetation (SAV) resources within the influence of the project (including the authorized mixing zone) shall be monitored before and after each maintenance dredging event. All monitoring shall be done within the peak SAV growing season (June – September). If dredging occurs during the growing season, then SAV surveys shall be conducted immediately prior to dredging and immediately after dredging has been completed; this will minimize inter-annual variation. However, if dredging occurs outside of the growing season (e.g., winter months), then monitoring shall be done during the peak growing season immediately prior to construction and the growing season immediately following construction; in this scenario, the post-construction survey shall be done as close as possible to the same time of year as the pre-construction survey to avoid seasonal differences. **Specific tasks to be completed during each pre- and post-construction survey include:**
- a. Delineate edges of seagrass patches: Visually locate the edge of the seagrass beds (including sparse beds with density <5%) and record positions using a sub-meter accurate GPS unit. The total acreage of resources within the project area during each survey shall be reported. The post-construction SAV acreage for each patch and for the project area overall should be compared to the acreage of SAV resources documented during the pre-construction survey.
- b. Qualitative assessment: Visually assess species composition, above-ground biomass, epiphyte coverage, and overall condition of each seagrass patch and the project area overall. Provide a detailed description of the current condition of seagrass resources and describe any visually conspicuous changes in the condition of resources compared to previous surveys.
- c. Quantitative survey: Within each patch, document the Braun-Blanquet (BB) cover-abundance scores for SAV within haphazardly placed 0.25m² (0.5 m x 0.5 m) quadrats. Quadrat placement should not be biased (e.g., towards the center of the patches or densest areas) but should be distributed throughout the patch to characterize the cover. The number of quadrats per SAV patch shall be determined during the pre-construction baseline survey and shall depend upon the size of each bed. An area of at least 10% of the total patch size should be sampled in smaller patches. More quadrats (up to 10) will be needed to accurately characterize large

patches. For each patch, the same number of quadrats shall be used during the post-construction survey as was used in the pre-construction survey, even if patch size has declined. A BB score shall be reported for each of the SAV taxa present within quadrats. Additionally, the BB score for total cover of all SAV taxa present within quadrats shall be reported. Note, the total BB score is not the sum of individual taxa BB cover scores; it is a separate measurement. Summary statistics (means and standard deviation values) shall be presented, and the report shall provide a comparison of pre- and post-construction BB cover values for each patch. The monitoring report shall include summary statistics for each patch and for the entire project area. The results section of the monitoring report shall include the frequency of occurrence (proportion of quadrats that contained seagrass), the density (mean BB score for all quadrats sampled), and the abundance (mean BB score for only those quadrats containing seagrass). The report shall include statistical analyses to evaluate whether the cover of SAV changed significantly over time (i.e., statistical comparison of pre- and post-construction BB score data).

28. No impacts to hardbottom are authorized. The following measures shall be taken to avoid impacts to the hardbottom communities located within the pipeline corridor for the offshore borrow areas. Floating pipelines shall be utilized at all locations where hardbottom communities are present within the authorized corridor. In addition, the pipeline anchors shall be set at least 50 feet away from any hardbottom communities. The pipeline shall be visually inspected at least once daily or more frequently if visual observations of turbidity indicate that a rupture or leak may have occurred.

A biological survey shall be conducted before and after each construction event that involves the utilization of pipelines within 1000' of hardbottom resources. Surveys shall characterize the condition of resources and document the spatial extent (acreage) and severity (functional loss) of any potential project related impacts. During each survey, hardbottom boundaries shall be delineated, and a qualitative description of the site shall be provided; additionally quantitative information on relief, abundance and distribution of sediments, and percent cover by benthic taxa shall be surveyed using standard procedures (e.g., line-intercept surveys and interval sediment depth measurements).

If at any time the pipeline ruptures or any materials are determined to have leaked from the pipeline, then hardbottom areas shall be surveyed within 24 hours to document and quantify impacts (i.e., acreage and severity of lost function). If hardbottom resources are damaged, the Department shall be notified immediately and damage shall be remediated as soon as possible; in the event of hardbottom impacts, mitigation and / or additional monitoring may be required.

29. Raw data shall be submitted to the Department no later than 45 days after each survey. Raw data submittals shall include scanned copies (pdfs) of datasheets with field data. Additionally, raw data shall be provided in Excel format; all data shall be checked for

accuracy prior to submittal. A report describing field methods and summarizing monitoring results (see above for details regarding each of the tasks) shall be submitted to the Department no later than 90 days after each survey.

30. **Water Quality Monitoring.** Turbidity shall be monitored as follows:

Units: Nephelometric Turbidity Units (NTUs).

Frequency: Three times daily, at least four (4) hours apart, during all dredging and filling operations. Sampling shall be conducted **while the highest project-related turbidity levels are crossing the edge of the mixing zone**. Since the turbidity levels can be related to pumping rates, the dredge pumping rates shall be recorded, and provided to the Department upon request. The compliance samples and the corresponding background samples shall be collected at approximately the same time, i.e., one shall immediately follow the other.

Location: Background: At surface and mid-depth, clearly outside the influence of any artificially generated turbidity plume or the influence of an outgoing inlet plume, coincidental with compliance measurements.

Dredge Sites: Samples shall be collected at surface and mid-depth, at least 500 meters upcurrent from the dredge site and clearly outside the influence of any turbidity generated by the project.

Beach Site: Samples shall be collected at surface and mid-depth, at a point approximately 500 meters upcurrent from any portion of the beach that has been, or is being, filled during the current construction event, at the same distance offshore as the compliance station, clearly outside of any turbidity plume generated by the project.

Terminal Groin: Samples shall be collected at surface and mid-depth, at least 500 meters upcurrent from the groin construction site, at the same distance offshore as the compliance station, clearly outside of any turbidity plume generated by the project.

Ebb shoal reformation area: Samples shall be collected at surface and mid-depth, at least 500 meters upcurrent from the dredge or offloading sites and clearly outside the influence of any turbidity generated by the project.

Compliance: Three times daily at least four (4) hours apart during dredging and fill placement activity, at surface and mid-depth, while the densest

turbidity plume is crossing the edge of the mixing zone. **Note:** If the plume flows parallel to the shoreline, the densest portion of the plume may be close to shore, in shallow water, and may cross the edge of the mixing zone less than 150 meters offshore. In that case, it may be necessary to access the sampling location from the shore, in water that is too shallow for a boat.

Dredge Sites: Samples shall be collected 150 meters down-current from the dredge head in the downcurrent direction **and** from any other source of turbidity generated by the dredge, in the densest portion of any visible turbidity plume. If no plume is visible, follow the likely direction of flow.

Beach Site: Samples shall be collected where the densest portion of the turbidity plume crosses the edge of the mixing zone, which measures 150 meters in radius from the point where the return water from the dredged discharge reenters the Gulf of Mexico.

Terminal Groin: Samples shall be collected where the densest portion of the turbidity plume crosses the edge of the mixing zone, which measures 150 meters in radius from the groin construction site.

Ebb shoal reformation area: Samples shall be collected where the densest portion of the turbidity plume crosses the edge of the mixing zone, which measures 150 meters in radius from the source of turbidity generated by the dredge or offloading activities. If no plume is visible, follow the likely direction of flow.

Calibration: The instruments used to measure turbidity shall be fully calibrated with primary standards within one month of the commencement of the project, and at least once a month throughout the project. Calibration with secondary standards shall be verified each morning prior to use, after each time the instrument is turned on, and after field sampling using two secondary turbidity “standards” that that bracket the anticipated turbidity samples. If the post-sampling calibration value deviates more than 8% from the previous calibration value, results shall be reported as estimated and a description of the problem shall be included in the field notes.

The monitoring requirements for the type of activity and location of the sampling site shall be reflected on the monitoring report forms.

Analysis of turbidity samples shall be performed in compliance with DEP-SOP-001/01 FT 1600 Field Measurement of Turbidity:

<http://publicfiles.dep.state.fl.us/dear/sas/sopdoc/2008sops/ft1600.pdf>

If the turbidity monitoring protocol specified above prevents the collection of accurate data, the person in charge of the turbidity monitoring shall contact the JCP Compliance Officer to establish a more appropriate protocol. Once approved in writing by the Department, the new protocol shall be implemented through an administrative permit modification.

31. The compliance locations given above shall be considered the limits of the temporary mixing zone for turbidity allowed during construction. If monitoring reveals turbidity levels at the compliance sites that are greater than 29 NTUs above the corresponding background turbidity levels, or 4.1 NTUs above background within OFW, construction activities shall **cease immediately** and not resume until corrective measures have been taken and turbidity has returned to acceptable levels.

Any project-associated turbidity source other than dredging or fill placement for beach nourishment (e.g., scow or pipeline leakage) shall be monitored as close to the source as possible. If the turbidity level exceeds 29 NTUs above background, or 4.1 NTUs above background within OFW, the construction activities related to the exceedance shall **cease immediately** and not resume until corrective measures have been taken and turbidity has returned to acceptable levels. This turbidity monitoring shall continue every hour until background turbidity levels are restored or until otherwise directed by the Department. The Permittee shall notify the Department's JCP Compliance Officer, by separate email to the JCP Compliance Officer, of such an event within 24 hours of the time the Permittee first becomes aware of the discharge. The subject line of the email shall state "OTHER PROJECT-ASSOCIATED DISCHARGE, TURBIDITY EXCEEDANCE".

When reporting a turbidity exceedance, the following information shall also be included:

- a. The Project Name;
- b. The Permit Number;
- c. Location and level (NTUs above background) of the turbidity exceedance;
- d. The time and date that the exceedance occurred; and
- e. The time and date that construction ceased.

Prior to re-commencing the construction, a report shall be emailed to the Department's JCP Compliance Officer with the same information that was included in the "Exceedance Report", plus the following information:

- a. Turbidity monitoring data collected during the shutdown documenting the decline in turbidity levels and achievement of acceptable levels;
 - b. Corrective measures that were taken; and
 - c. Cause of the exceedance.
32. **Turbidity Reports:** All turbidity monitoring data shall be submitted within one week of analysis. The data shall be presented in tabular format, indicating the measured turbidity levels at the compliance sites for each depth, the corresponding background levels at each depth and the number of NTUs over background at each depth. Any exceedances of the turbidity standard (29 NTUs above background, or 4.1 NTUs above background within OFW) shall be highlighted in the table. In addition to the raw and processed data, the reports shall also contain the following information:
- a. Time of day samples were taken;
 - b. Dates of sampling and analysis;
 - c. GPS location of sample;
 - d. Depth of water body;
 - e. Depth of each sample;
 - f. Antecedent weather conditions, including wind direction and velocity;
 - g. Tidal stage and direction of flow;
 - h. Water temperature;
 - i. A map, overlaid on an aerial photograph, indicating the sampling locations, dredging and discharge locations, and direction of flow. A sample map shall reviewed and approved by the Department prior to construction;
 - j. A statement describing the methods used in collection, handling, storage and analysis of the samples;
 - k. A statement by the individual responsible for implementation of the sampling program concerning the authenticity, precision, limits of detection, calibration of the meter, accuracy of the data and precision of the GPS measurements;

1. When samples cannot be collected, an explanation in the report shall be included. If unable to collect samples due to severe weather conditions, include a copy of a current report from a reliable, independent source, such as an online weather service.

Monitoring reports shall be submitted by email to the Department's JCP Compliance Officer. In the subject line of the reports, include the Project Name, Permit Number and the dates of the monitoring interval. Failure to submit reports in a timely manner constitutes grounds for revocation of the permit. When submitting this information to the Department's JCP Compliance Officer, on the cover page to the submittal and at the top of each page, please state: "This information is provided in partial fulfillment of the monitoring requirements in Permit No. 0194790-017-JC, for the Charlotte County Erosion Control (Restoration, Nourishment, Groin, and Stump Pass Maintenance Dredging).

33. If the Permittee is unable to complete two maintenance events within the 15-year life of the permit, the Permittee may request (prior to the expiration date of the permit), and the Department shall grant, an extension of the permit expiration date in order to allow completion of the second maintenance event. The extension would be documented through an administrative modification.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



Lainie Edwards, Ph.D.
Program Administrator
Beaches, Inlets and Ports Program

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to Section 120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.



Deputy Clerk

09/02/15

Date

**Joint Coastal Permit
Charlotte County Erosion Control (Restoration, Nourishment, Groin, and Stump Pass
Maintenance Dredging)
File No. 0194790-017-JC
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Prepared by Chiu Cheng.

Attachments: Approved Permit Drawings (28 pages)
FWC Regional Biologist Contact Information
Operations, Monitoring and Maintenance Plan (Attachment 23C, RAI Response)
Approved Physical Monitoring Plan (dated September 17, 2014)
Approved QA/QC Plan (dated September 15, 2014)