



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Noah Valenstein
Secretary

CONSOLIDATED JOINT COASTAL PERMIT AND SOVEREIGN SUBMERGED LANDS AUTHORIZATION

PERMITTEE:

Brevard County
2725 Judge Fran Jamieson Way, Bldg A
Viera, Florida 32940

AGENT:

Kevin R. Bodge, Ph.D., P.E.
Olsen Associates, Inc.
2618 Herschel Street
Jacksonville, Florida 32204

PERMIT INFORMATION:

Permit Number: 0137212-016-JC

Project Name: Brevard County Shore Protection
Project; South Reach

County: Brevard

Issuance Date: June 12, 2017

Expiration Date: June 12, 2032

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.

PROJECT DESCRIPTION:

This permit authorizes periodic beach and dune nourishment along approximately 3.8 miles of the Atlantic Ocean shoreline in Brevard County, between Department reference monuments R-118.3 and R-139 using two borrow sources, Canaveral Shoals I and II. Each nourishment event will involve placement of approximately 750,000 cubic yards of dredged, breach-compatible material onto beach locations within the permitted template.

The dune feature will have a minimum construction crest elevation of +12 feet NAVD'88 and a landward slope of approximately 1 vertical (V): 2 horizontal (H) terminating at the landward limit of vegetation. The dune feature will slope seaward from approximately 1V: 1.5H to 1V:4H to the existing beach berm elevation of +8.7 feet NAVD'88. The upper flat portion of the beach berm, constructed at a maximum elevation of +8.7 feet NAVD'88, will have a variable length of up to approximately 80 feet. Seaward thereof, the construction berm will slope seaward

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at approximately 1V:35H to an elevation of +6.7 feet, thence sloping at approximately 1V:15H to the intersection with the existing seabed.

The authorized activity also includes use of the 2,450 by 4,500 foot South Reach Nearshore Disposal and Sand Rehandling Area (SR-NDSRA). The SR-NDSRA may be used to stockpile beach compatible material dredged from the authorized borrow areas, which would then be subsequently dredged and placed onto the beach. Material dredged from either borrow area that does not meet the standards for beach compatibility, as described by the attached Sediment QA/QC plan, will be deposited into the Canaveral Ocean Dredged Material Disposal Site (ODMDS).

PROJECT LOCATION:

The project is located in Brevard County, Sections 25, 30, and 31, Township 27 South, Range 38 East; Sections 5, 6, 7, and 8 Township 28 South, Range 38 East; within the Atlantic Ocean, Class III Waters. Canaveral Shoals Borrow Areas I and II are located approximately 1.6 miles east-southeast and 4.5 miles east-southeast of Cape Canaveral, respectively. Canaveral Shoals Borrow Area II is in federal waters. The SR-NDSRA is centrally located along the project area between R-126 and R-130.5, approximately 2,900 ft. from the shoreline, between the -38 ft. and -48 ft. NAVD'88 contours. The ODMDS is located approximately 5.6 miles offshore within Federal Waters, east of Cocoa Beach.

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 Chapter 253, Chapter 18-21, Section 62-330.075, F.A.C., and the policies of the Board of Trustees.

The Department has also determined that the nourishment activity and use of the SR-NDSRA qualify 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 reviewed the project described above, and has determined that the borrow area activity within Canaveral Shoals I requires a public easement for the use of those lands, pursuant to Chapter 253.77, F.S. The Department

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intends to issue the public easement, subject to the limits, conditions, and locations of work shown in the attached drawings, and is also subject to the General Conditions and Specific Conditions, which are a binding part of this permit.

The final documents required to execute the public easement have been sent to the Department's Division of State Lands. The Department intends to issue the public easement upon satisfactory execution of those documents. **You may not begin construction of this activity on state-owned, sovereign submerged lands in Canaveral Shoals I borrow area until the public 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:

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1. All activities authorized by this permit shall be implemented as set forth in the project description, permit drawings, 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 Rule 62B-49.008, F.A.C.
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 Department 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; and, 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 or 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. Pursuant to Sections 253.77 and 373.422, F.S., prior to conducting any works or other activities on state-owned submerged lands, or other lands of the state, title to which is vested in the Board of Trustees, the permittee must receive all necessary approvals and authorizations under Chapters 253 and 258, F.S. Written authorization that requires formal execution by the Board of Trustees shall not be considered received until it has been fully executed.
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.
 9. At least 48 hours prior to commencement of activity authorized by this permit, the permittee shall electronically submit to the Department, by email at JCPCCompliance@dep.state.fl.us , 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 any prehistoric or historic artifacts, such as pottery or ceramics, stone tools or metal implements, shipwreck remains or anchors, dugout canoes or other physical remains that could be associated with Native American cultures, or early Colonial or American settlement are encountered at any time within the project site area, the permitted project shall cease all activities involving subsurface disturbance in the immediate vicinity of such discoveries. The permittee, or other designee, shall contact the Florida Department of State, Division of Historical Resources, Compliance and Review Section at (850)245-6333 or (800)847-7278, as well as the appropriate permitting agency office. Project activities shall not resume without verbal and/or written authorization from the Division of Historical Resources. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, F.S.
 11. Within 30 days after completion of construction or completion of a subsequent maintenance event authorized by this permit, the permittee shall electronically submit to the Department, by email at JCPCCompliance@dep.state.fl.us , 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 as-built drawings electronically submitted to the Department, by email at JCPCCompliance@dep.state.fl.us. Note: Certification by a licensed professional engineer is not required for written statements of completion submitted by the Corps.

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.

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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: JCPCCompliance@dep.state.fl.us) unless otherwise specified in the specific conditions of this permit.
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 and is shown on the approved permit drawings.
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. 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 along with 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 Permittee shall point out any deviations from the Project Description of this permit (as stated above) or the approved permit drawings (attached to this permit), and any significant changes would require a permit modification. 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.
 - b. *Turbidity monitoring qualifications*: In order to assure that turbidity levels do not exceed the compliance standards established in this permit, construction at the project site shall be monitored closely by an independent third party with formal training in

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- water quality monitoring and professional experience in turbidity monitoring for coastal construction projects. 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;
- c. 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 condition;
 - d. The terms, conditions and provisions of the required Public Easement (Instrument No. 30166, BOT File No. 050219523) for the Canaveral Shoals I borrow area shall be met. The Notice to Proceed shall not be issued and construction of this activity engaging the Public Easement areas shall not commence on sovereign submerged lands, title to which is held by the Board of Trustees, until all easement documents have been executed to the satisfaction of the Department.
 - e. Documentation from the U.S. Fish and Wildlife Service (FWS) that this work will be covered under a Statewide Programmatic **Biological Opinion** or a Biological Opinions (BO) issued for construction on this project site. If the BO contains conditions that are not already contained herein, the permit shall be modified to include those additional conditions.
5. **Pre-Construction Conference.** Prior to each construction event, 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, the JCP Compliance Officer (or designated alternate), the Marine Turtle Monitor (Marine Turtle Permit Holder), the Bird Monitors, and staff representatives of the Florida Fish and Wildlife Conservation Commission (FWC). 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 agency representatives listed below:
- JCP Compliance Officer: JCPCCompliance@dep.state.fl.us
- FWC Imperiled Species Management Section: marineturtle@myfwc.com
- FWC Regional Species Conservation Biologist: Alex.Kropp@myfwc.com

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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 of the **agreed-upon** date, time and location of the meeting, and shall also provide a meeting agenda and a teleconference number.

6. Construction activities within the SR-NDSRA shall be started after September 30 and completed before May 1. In the event that nesting and hatching conclude earlier than September 30 for any given year, the permittee may request a minor modification of the specific permit condition.
7. Dredging equipment operating within the SR-NDSRA shall be equipped with real-time navigation control with maximum horizontal error of less than 5 meters. Sole reliance upon Loran-C navigation control shall not be permitted.
8. 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 Atlantic Ocean; and
 - b. The pipeline discharge location shall be a minimum of 50 feet landward from open water. If 50 feet is not attainable due to a narrow beach berm, the pipeline discharge location shall be placed as far landward on the beach berm as possible without disturbing the dune.
9. The existing stormwater outflows (located at R-119.5, R-121.5, and R-123.5) shall be monitored after each significant rainfall event in order to gauge the degree to which flow occurred through the beach berm. In the event that flooding, or uncontrolled discharge and/or erosion through the berm becomes a prevalent problem, then alternate short-term approaches to manage the discharge shall be presented to the Department for review and approval as a permit modification.
10. **In-water Activity.** The Permittee shall adhere to the following requirements 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 project 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 or travel.
 - d. All on-site project personnel are responsible for observing water-related activities for the presence of marine turtles and manatees. All in-water operations, including vessels, shall be shut down if a marine turtle or manatee comes within 50 feet of the operation. Activities shall not resume until the animal(s) has moved beyond the 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 which 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 ImperiledSpecies@myFWC.com.
11. **Hopper Dredging:** If a hopper dredge is used for this project, the following requirements shall be met:

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- a. Handling of captured marine turtles 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. In order to minimize impingement or entrainment of marine turtles within the water column, 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. 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 of the start-up and completion of hopper dredging operations. If a marine turtle is captured or marine turtle parts are recovered, the STSSN shall be contacted at seaturtlestranding@myfwc.com.
12. **Trawling.** If relocation trawling or non-capture trawling for marine turtles is required as per applicable National Marine Fisheries Service Biological Opinions and Incidental Take authorizations, the following is required:
- 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 prior to trawling.
 - b. The Permittee or their contractor shall e-mail (MTP@MyFWC.com) weekly reports to the FWC's 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, their general health, and release information. A summary of all trawling activity (including non-capture trawling) shall be submitted to MTP@myfwc.com by January 15 of the following year, or at the end of the project. The summary shall be provided on the FWC provided Excel spreadsheet (available at <http://myfwc.com/media/3333816/Trawl-Report-Template.pdf>), and shall list all turtles captured in Florida waters, the measurements of all captured turtles, the location of captures (latitude and longitude in decimal degrees), the location of tow start-stop points (latitude and longitude in decimal degrees), and times for the start-stop points of the tows (including tows when no turtles are captured).
13. **Beach Related Activities.** The Permittee shall adhere to the following requirements for all 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 debris, including derelict coastal armoring material, concrete and metal shall be removed from the beach to the maximum extent practicable prior to any placement of construction material on the beach. If debris removal activities will take place during protected species nesting seasons, the work shall be conducted during daylight hours only, and shall not commence until completion of daily monitoring surveys each day. 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 construction equipment on the beach 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 that is 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.
14. **Shorebird Monitoring.** The Permittee shall comply with the following shorebird monitoring requirements:
- a. Shorebird surveys shall be conducted by trained, dedicated individuals (Bird Monitor), with proven shorebird identification skills and avian survey experience.
 - b. **Selection of Bird Monitors.** A list of Bird Monitors shall be provided to the FWC, along with their contact information and a summary of their qualifications, including bird identification skills and avian survey experience. This information shall be

- submitted to the FWC Regional Biologist (alex.kropp@myfwc.com) for review and consultation prior to any construction or shorebird surveys.
- c. 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. The breeding season in Brevard County begins April 1. Surveys shall be conducted through August 31, or until all breeding activity has concluded, whichever is later. However, if construction is completed before the end of the shorebird breeding season, weekly shorebird surveys shall be conducted until all nesting activity has concluded. If no nesting has been initiated on site prior to July 15, nesting surveys may be concluded on or after that date.
 - d. 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.
 - e. 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, and (3) any other activities occur that have the potential to disrupt breeding behavior or cause harm to the birds, their eggs or their young. Once construction is completed and all personnel and equipment have been removed from the beach, surveys may be conducted at weekly intervals. If no nesting has been initiated on site prior to July 15, surveys may be concluded on or after that date.
 - f. 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.
 - g. If an ATV or other vehicle is needed to cover large project areas, operators shall adhere to the FWC's Best Management Practices for Operating Vehicles on the Beach (<http://myfwc.com/conservation/you-serve/wildlife/beach-driving/>). Specifically, the vehicle shall be operated at a speed under 6 mph, and only on beaches at or below the high-tide line. The Bird Monitor(s) shall stop at no greater than 200-meter intervals to look for breeding activity.
 - h. Once the Bird Monitor(s) confirms that birds are breeding, as evidenced by the presence of a scrape, eggs, or young, the Bird Monitor(s) shall notify the FWC Regional Species Conservation Biologist (see the attached FWC contact information exhibit) within 24 hours. The Bird Monitor(s) shall report all breeding activity to the FSD website within one week of data collection.

15. **Shorebird Buffer Zones and Travel Corridors.** The Bird Monitor(s) shall establish a disturbance-free buffer zone around any location within the project area where shorebirds have been engaged in breeding behavior, including territory defense. The FWC considers a 300-foot-wide buffer to be adequate based on published studies; however, a smaller, site-specific buffer may be established if approved by the FWC Regional Species Conservation Biologist. Reasonable measures shall be taken to ensure that human disturbance (including pedestrians, pets and vehicles) be prohibited in the buffer zone.
- a. The Bird Monitor(s) shall keep breeding sites under sufficient surveillance to determine if birds appear agitated or disturbed by construction or other activities in adjacent areas. If birds appear to be agitated or disturbed by these activities, then the Bird Monitor(s) shall immediately widen the buffer zone to a sufficient size to protect breeding birds.
 - b. Reasonable and traditional pedestrian access shall not be blocked in situations where breeding birds will tolerate pedestrian traffic. This is generally the case with lateral movement of beach-goers walking parallel to the beach at or below the highest tide line. Pedestrian traffic may also be tolerated when breeding was initiated within 300 feet of an established beach access pathway. The Bird Monitor(s) shall work with the FWC Regional Species Conservation Biologist to determine if pedestrian access can be accommodated without compromising nesting success.
 - c. Perimeters of designated buffer zones shall be marked with posts, twine, and signs stating, "Do Not Enter, Important Nesting Area" or similar language. The signs shall include the name and a phone number of the entity responsible for posting. Posts shall not be higher than 3 feet once installed. "Symbolic fencing" (i.e., twine, string or rope) shall be placed between all posts and be clearly visible to pedestrians. In areas where marine turtles nest, the ropes shall be at least 2.5 feet above the ground. If pedestrian pathways are approved by the FWC Regional Biologist within the 300-foot buffer zone, these shall be clearly marked. Posting shall be 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. All reasonable measures shall be taken to ensure that no construction activities, pedestrians, moving vehicles, or stockpiled equipment are allowed within the buffer area.
 - e. 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.
- f. If flightless shorebird chicks are present within or adjacent to an equipment travel corridor, a Shorebird Monitor shall be present during the operation to ensure that the equipment does not operate within 300 feet of the flightless chicks. It is the Permittee's responsibility to have their contractor ensure that no chicks are in the path of the moving vehicles and that the vehicles leave no tracks capable of trapping flightless chicks. The Bird Monitor shall conduct a shorebird education and identification program with the Contractor to ensure protection of precocial (mobile) chicks.
 - g. 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 marine turtle nesting, especially if the corridors are established before construction has started.
 - h. Notification. If the Bird Monitor finds that shorebirds are breeding within the project area, the Permittee shall ensure that an informational bulletin board is placed and maintained in the construction staging area. This bulletin board shall display the 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".
16. **Marine Turtle Nest Surveys and Relocation.** Sand placement shall be started after October 31 and be completed before May 1. Daily surveys shall be conducted between sunrise and 9 a.m. of all sandy beaches within the project area and all areas used for beach access. No construction activity may commence until completion of the marine turtle survey each day.
- 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 turtle 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.

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- i. Daily nesting surveys shall be initiated March 1 and shall continue until November 11, or until two weeks after the last crawl in the project area, whichever is earlier.
 - ii. After the sand placement is completed, marine turtle nest monitoring and reporting shall continue throughout the nesting season, and shall be conducted according to the Post-construction Monitoring and Reporting of Marine Turtle Nesting and shorebird nesting requirements in Specific Conditions 14, 23, 24, and 25.
- b. During the period from March 1 through April 30, daytime surveys shall be conducted for leatherback sea turtle nests beginning March 1. Nighttime surveys for leatherback marine turtles shall begin when the first leatherback crawl is recorded within the project or adjacent beach area through April 30, or until completion of the project, whichever is earliest. Nightly nesting surveys shall be conducted from 9 p.m. until 6 a.m. The project area shall be surveyed at 1-hour intervals and eggs shall be relocated per the preceding requirements. Since leatherbacks require at least 1.5 hours to complete nesting, the 1-hour interval will ensure that all nesting leatherbacks are encountered.
- c. If nests are laid in areas where they may be affected by sand placement activities, eggs shall be relocated as follows.
- i. Only those nests laid in the area where sand placement will occur shall be relocated. Nest relocation shall no longer occur after the sand placement is completed. 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 beach settings that are not expected to experience any of the following: inundation by high tides; severe erosion; previous egg loss; or illumination by artificial lighting. Nest relocations in association with construction activities shall cease when sand placement activities no longer threaten nests.
 - ii. Nests deposited within areas where construction activities will not occur for 65 days, or 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 shall also install a secondary marker at a point as far landward as possible to assure that the nest can be located in the future 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 nest markers remain in place and the nest has not been disturbed by the project activity.

17. **Marine Turtle or Nest Encounters.** Upon locating a dead or injured marine 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. If a marine 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.
18. **Project Lighting.** Direct lighting of the beach and nearshore waters during the marine turtle nesting season 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 codified requirements for human safety. Light intensity of lighting equipment shall be reduced to the minimum standard required for General Construction areas, in order to avoid misdirecting marine turtles. Shields shall be affixed to the light housing and shall be large enough to block light from all lamps from being transmitted outside the construction area (Figure 1 below).

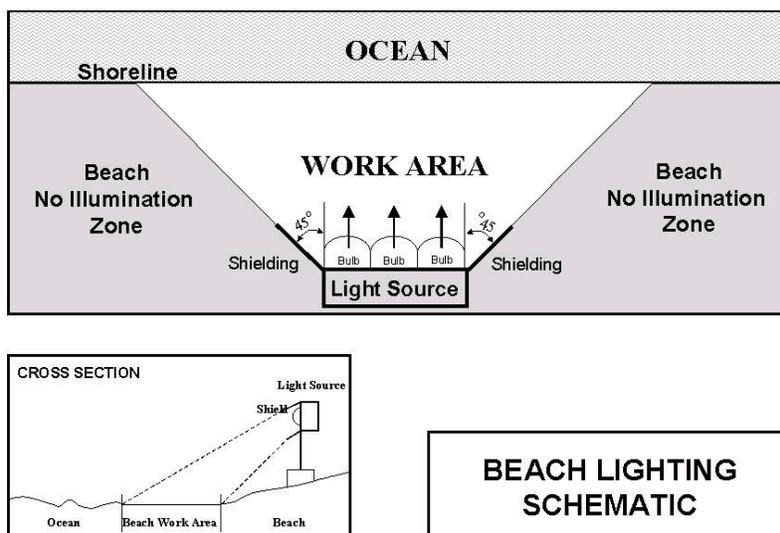


Figure 1

19. **Fill Restrictions.** During the marine turtle nesting season the contractor shall not advance 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 has been cleared for fill advancement. An exception to this may occur if there is permitted marine turtle monitor present on-site to ensure that no nesting and hatching marine turtles are present within the extended work area. If the 500-foot advancement limitation is not feasible for the project, an agreed upon distance shall be established during the preconstruction meeting. Once the beach has been cleared for fill advancement, 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 advancement limitation shall apply.

20. **Compaction Sampling.** The requirement for compaction monitoring can be eliminated if the placed sand is tilled, regardless of post-construction compaction levels. To request a waiver of tilling requirement, sand compaction shall be monitored in the area of sand placement immediately after completion of the nourishment event, and two weeks prior to marine turtle nesting season, for three (3) subsequent years, and shall be monitored in accordance with a protocol agreed to by the FWC and the Permittee. Out-year compaction monitoring and remediation are not required if placed sand no longer remains on the beach. At a minimum, the protocol provided under Specific Conditions 21(a)-(e). (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 prior to the beginning of marine turtle nesting season. 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 will not be required. Compaction monitoring and tilling are not required if placed sand no longer remains on the beach.
21. **Tilling Requirements.** If tilling is required, as specified in Specific Condition 20, above, the area shall be tilled to a depth of 36 inches. All tilling activity shall be completed prior to the marine turtle nesting season. If tilling occurs during shorebird nesting season, shorebird surveys shall be required prior to tilling, per the Shorebird Conditions included within this document. It is the responsibility of the Permittee to ensure that their contractors 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.
 - 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 shall avoid all naturally vegetated areas that are at least 3 square feet in size, as well as any planted areas that have been authorized by the Department. A 3-foot-wide No-Tilling 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 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-choose/wildlife/beach-driving/>).
22. **Escarpment Surveys.** Visual surveys for escarpments along the project area shall be made immediately after completion of sand placement, and two weeks prior to marine turtle nesting season, for three (3) subsequent years if placed sand still remains on the beach.
- a. Escarpments that interfere with marine 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 the beginning of marine turtle nesting season. Any escarpment removal shall be reported by location to FWC, with a copy sent to the JCP Compliance Officer. If the project is completed during the marine turtle nesting and hatching season, escarpment leveling may be required immediately, while protecting nests that have been relocated or left in place.
 - b. The Permittee shall contact FWC immediately if subsequent reformation of escarpments occurs during the nesting and hatching season, and the escarpments interfere with marine turtle nesting or if the escarpments 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 will provide a brief written authorization that describes methods to be used to reduce the likelihood of impacting existing nests.
 - c. 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 will occur during shorebird breeding season, shorebirds surveys shall be required prior to removal, per the Shorebird Conditions included within this document. NOTE: Out-year escarpment monitoring and

- remediation are not required if placed material no longer remains on the dry beach.
- d. No heavy equipment shall operate within 300 feet of any shorebird nest.
 - e. If flightless shorebird young are present within 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.
 - f. 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-protect/conservation/wildlife/beach-driving/>).
23. **Post-construction Shorebird Protection.** If the Permittee conducts beach cleaning on the nourished beach, a minimum of 30% of the biotic material within the wrack line shall be left on the beach after cleaning. The biotic material shall be left 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.
24. **Post-construction Monitoring and Reporting of Marine Turtle Nesting.** Reports on all marine turtle nesting activity shall be provided for the initial marine turtle nesting season and for up to two additional nesting seasons as follows:
- a. For the remainder of the nesting season immediately following construction, and for the following year, the number and type of emergences (nests or false crawls) shall be reported per species in accordance with Table 1 (below). One or more additional years of nesting surveys may be required if nesting success for any species on the nourished beach is less than 40%.
 - b. 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.
 - c. If the documented reproductive success for each species meets or exceeds the required criteria, as outlined in Table 1 (below), monitoring for reproductive success shall be recommended, but not required for the second year post-construction.
 - d. 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, permit numbers and dates of construction.

- e. Two lighting surveys shall be conducted of all artificial lighting visible from the 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. The second survey shall be conducted between July 1 and July 15. The survey shall be conducted from the top of the foreshore slope (i.e., the seaward edge of the filled berm before it slopes into the water), facing landward. 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 visible light source, the Permittee shall document that the property owner has been notified of the problem light and has been provided with recommendations for correcting the light. Recommendations shall be in accordance with local lighting ordinances, and a report summarizing all visible lights shall be forwarded to local code enforcement, or if no lighting ordinances exist, the recommendation shall be that no lights, light sources or glow shall be visible from the newly elevated beach. A report summarizing all visible lights shall be submitted to FWC Imperiled Species Management Section at marineturtle@myfwc.com and copied to JCPcompliance@DEP.State.FI.US within 28 days following the survey. A summary report documenting what corrective actions or local enforcement actions have been taken shall also be submitted by December 15 of that year. After the annual report is completed, the Permittee shall set up a meeting with the county or municipality and FWC to discuss the survey report, as well as any documented marine turtle disorientations in or adjacent to the project area.
25. Data shall be reported for the nourished areas in accordance with the Table 1 (below), and shall include the number of nests that were lost to erosion or that were 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 JCPcompliance@DEP.State.FI.US. All summaries shall be submitted by January 15th 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 in-season construction, two years post construction if placed sand remains on beach and variable does not meet criterion based on previous year.	Number of nests and non-nesting events.	40% or greater

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Hatching Success	Year of in-season construction. And one year post construction if placed sand remains on beach and variable does not meet success criterion based on previous year.	Number of hatchlings by species to hatch from egg.	60 percent or greater (a statistically valid number of loggerhead and green nests, and all leatherback nests).
Emergence Success	Year of in-season construction and one year post construction if placed sand remains on beach and variable does not meet success criterion based on previous year.	Number of hatchlings by species to emerge from nest onto beach	80 percent or greater (a statistically valid number of loggerhead and green nests, and all leatherback nests).
Disorientation	Year of in-season construction and two years post construction if placed sand remains on the beach.	Number of nests and individuals that misorient or disorient.	Disorientation Report Form http://myfwc.com/media/418153/Seaturtle_Guidelines_A_LDIR_Directions.pdf
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.	Number, location and photographs of lights visible from nourished berm, corrective actions and notifications made	Lighting survey and meeting resulting with plan for reduction in lights visible from nourished berm within one to two-month period.
Compaction	Three seasons following construction. 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 placed sand remains on the beach.	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

26. **Dune Planting.** Planting of dune vegetation is encouraged outside of marine turtle nesting season. However, planting activities may occur during the marine turtle nesting season March 1 through October 31 under the following conditions:
- a. It is the responsibility of the permittee to ensure that the project area and access sites are surveyed for marine turtle nesting activity. All nest surveys, nest relocations screening or caging activities etc. shall be conducted only by persons with prior experience and training in these activities and is duly authorized to conduct such activities through a valid permit issued by FWC pursuant to Florida Administrative

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- Code 68E-1. For information regarding whether the project beach is surveyed by qualified personnel, contact the Imperiled Species Management Section at MTP@myfwc.com.
- b. Marine turtle nest surveys shall be initiated at the beginning of the nesting season or 65 days prior to installation of plants (whichever is later). Surveys shall continue until completion of the project or through September 15 (whichever is earliest). Surveys shall be conducted throughout the project area and all beach access sites.
 - c. Any nests deposited in an area not requiring relocation for conservation purposes (as determined by the marine turtle permit holder) shall be left in situ. The marine turtle permit holder shall install an on-beach marker at any nest site and a secondary marker located at a point as far landward as possible to ensure that future location of the nest will be possible should the on-beach marker be lost. A series of stakes and survey ribbon or string shall be installed to establish an area of 3 feet radius surrounding the nest. No planting or other activity shall occur within this area nor shall any activity occur which might cause indirect impacts within this area. Nest sites shall be inspected daily to ensure nest markers have not been removed.
 - d. The use of heavy equipment (trucks) is not authorized seaward of the dune crest or armoring structure. A lightweight (ATV style) vehicle, with tire pressures of 10 p.s.i. or less can operate on the beach.
 - e. Any vegetation planting or temporary placement of irrigation materials shall be installed by hand labor/tools only.
 - f. Temporary irrigation lines proposed along the landward side of the dune shall be entrenched 1 to 3 inches below grade so as not to pose a barrier to hatchlings and to allow for easy removal. Irrigation piping shall avoid all marked nests by a minimum of ten (10) feet. The irrigation system shall be designed and maintained so that watering of the unplanted sandy beach does not occur. No irrigation lines shall be installed on the crest or seaward side of the dune. In the event a marine turtle nest is deposited within the newly established dune planting area, the permittee shall modify the irrigation system so that watering within 10 feet of the nest does not occur. Daily inspection of the irrigation system shall be accomplished by the permittee to ensure compliance with this condition. All irrigation lines shall be removed once plants become established.
 - g. All activity shall be confined to daylight hours and shall not occur prior to the completion of all necessary marine turtle surveys and conservation activities within

the project area. Nighttime storage of equipment or materials shall be off the beach (landward of the dune crest, existing seawalls or bulkheads).

- h. In the event a nest is disturbed or uncovered during planting activity, the permittee shall cease all work and immediately contact the person(s) responsible for marine turtle conservation measures within the project area. If a nest(s) cannot be safely avoided during construction, all activity within the affected project area shall be delayed until complete hatching and emergence of the nest.

PHYSICAL MONITORING REQUIRED:

27. **Monitoring and reporting of the permitted project shall be conducted in accordance with the Physical Monitoring Plan dated November 1, 2016.**

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.

As guidance for obtaining Department approval, the plan shall generally contain the following items:

- a. Topographic and bathymetric profile surveys of the beach and offshore shall be conducted prior to commencement of construction, immediately following completion of construction, and biennially thereafter beginning one or two years following completion of construction. A pre-construction survey of the project area to receive beach fill may use surveys conducted for purposes of construction bidding, contracting or construction management. The post-construction survey of the beach fill may use surveys and other information collected periodically during construction for purposes of construction management and payment. Alternatively, the post-construction survey may consist of a single beach-offshore profile survey event of the project monitoring area conducted within 60 days after completion of beach fill placement.

Thereafter, monitoring surveys shall be conducted biennially beginning approximately one year following completion of construction until the next beach nourishment event or the expiration of the project design life, whichever occurs first. The monitoring surveys shall be conducted during a spring or summer month and repeated as close as practicable during that same month of the year. If the time period between the post-construction survey and the first biennial monitoring survey is less

than six months, then the Permittee may at their discretion postpone the first monitoring survey until the following spring/summer.

The monitoring area shall include profile surveys at each of the Department of Environmental Protection's DNR reference monuments within the bounds of the beach fill area and along the adjacent shoreline on both sides of the beach fill area from R-110 through R-145. All work activities and deliverables for the biennial monitoring surveys shall be conducted in accordance with the latest update of the Department's Monitoring Standards for Beach Erosion Control Projects, Sections 01000 and 01100.

- b. Bathymetric surveys of the offshore borrow area(s) [and if used, the SR-NDSRA] used for construction shall be conducted within 90 days prior to commencement of construction and within 60 days following completion of construction of the project. Alternatively, the post-construction survey of the borrow area may consist of surveys and other information collected during construction for purposes of construction management.

Survey grid lines across the borrow area(s) shall be spaced to provide sufficient detail for accurate volumetric calculations but spaced not more than a maximum of 500 feet apart, and shall extend a minimum of 500 feet beyond the boundaries of the borrow site. In all other aspects, work activities and deliverables shall be consistent with the Department's Monitoring Standards for Beach Erosion Control Projects, Section 01200.

- c. The Permittee shall submit an engineering report and the monitoring data to the BBCS within 90 days following completion of the construction and each biennial monitoring survey.

The report shall summarize and discuss the data, the performance of the beach fill project, 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:

- A record of the volume and location of all beach fill or inlet sand bypassing material placed within the project area;
- 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;

- The most recent MHW shoreline positions (ft) in comparison with the design profile at each individual monument location;
- The MHW shoreline position changes (ft) relative to the pre-construction survey at each individual monument location for all the monitoring periods;
- 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
- Other shoreline position and volumetric analysis the Permittee or engineer deem useful in assessing, with quantitative measurements, the performance of the project.

The report shall include computations, tables and graphic illustrations of volumetric and shoreline position changes for the monitoring area. An appendix shall include superimposed plots of the two most recent beach profile surveys, the design profile, and pre- and post-construction beach profile at each individual monument location.

- d. A digital copy of the monitoring report and a digital file of the survey data shall be submitted to the Division of Water Resource Management 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 Division, 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 Physical Monitoring Plan for Permit No. 0137212-016-JC for the monitoring period [XX].

SEDIMENT QUALITY

28. Sediment quality will be assessed as outlined in the attached Sediment QA/QC plan, dated November 1, 2016. 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 result shall be submitted to FDEP within 90 days following the completion of beach construction. The Sediment QA/QC Plan includes 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 will be taken to avoid further placement of noncompliant fill, and the sediment inspection results will be reported to the Department.
 - b. The Permittee will submit post-construction sediment testing results and an analysis report as outlined in the Sediment QC/QA plan to the Department within 90 days following beach construction. The sediment testing results will be certified by a P.E.

or 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 QC/QA 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 will be submitted to the Department within 7 days following completion of remediation activities.
29. The disposal location of dredged material from the access lane of Canaveral Shoals Borrow Area I shall be determined by the depth of cut. Beach quality material (defined in Rule 62B-41.007(2)(j), F.A.C.) dredged from above -25.0 ft. NAVD'88 may be placed directly within the Beach Fill Area. Material dredged from between elevations -25.0 ft and -30.3 ft. containing less than 20% fines shall be placed within the SR-NDSRA. Material dredged from between elevations -25.0 ft and -30.3 ft. containing greater than 20% fines shall be placed in the Canaveral Ocean Dredged Material Disposal Site (ODMDS). During construction, an on-site inspector with training in the determination of sediment characteristics will evaluate the suitability of dredged material with less than 20% fines for nearshore disposal vs. ocean disposal.

MONITORING REQUIRED:

30. Water Quality- Turbidity shall be monitored as follows:

Units: Nephelometric Turbidity Units (NTUs)

Dredging at Canaveral Shoals I Borrow Site and/or the SR-NDSRA:

Frequency: Every 6 hours, or, if a hopper dredge is used then approximately midway through each fill cycle while the dredge is actively dewatering or discharging overflow, during daylight hours only.

Background: 300 meters from the dredge in the opposite direction of the prevailing current flow. Sampling shall occur at surface, mid-depth, and (for sites with depths greater than 25 feet) 2 meters above the bottom, clearly outside the influence of any artificially generated turbidity plume.

Compliance: Samples shall be collected no more than 150 meters downcurrent from the dredge, in the densest portion of any visible turbidity plume. Sampling shall occur at surface, mid-depth, and (for sites with depths greater than 25 feet) 2 meters above the bottom.

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Beach Nourishment Site:

Frequency: Once every 6 hours during a beach disposal operation, during daylight hours only.

Background: At least 300 meters up-current from the point where discharge water is re-entering waters of the State (discharge point), clearly outside of the influence of any turbid plume, during daylight hours only. Sampling shall occur at surface, mid-depth, and (for sites with depths greater than 25 feet) 2 meters above the bottom, clearly outside the influence of any artificially generated turbidity plume. Samples shall be collected at the same distance offshore as the compliance station.

Compliance: Samples shall be collected no more than 150 meters downcurrent from the discharge point within the densest portion of any visible turbidity plume caused by the construction activities. If a plume is not visible, the samples shall be collected 50 m from the shoreline. Sampling shall occur at surface, mid-depth, and (for sites with depths greater than 25 feet) 2 meters above the bottom. *Note: If the plume flows parallel to the shoreline, the densest portion of the plume may be close to shore, in shallow water. In that case, it may be necessary to access the sampling location from the shore, in water that is too shallow for a boat. See Diagram 1.*

Disposal at the NDSRA:

Frequency: Approximately every 6 hours between 15 and 30 minutes after disposal of a barge load of material during daylight hours only.

Background: 300 meters from the disposal barge in the opposite direction of the prevailing current flow, clearly outside the influence of any turbid plume. Sampling shall occur at surface, mid-depth, and (for sites with depths greater than 25 feet) 2 meters above the bottom.

Compliance: No more than 150 meters downcurrent from the barge, in the densest portion of any visible turbidity plume. Sampling shall occur at surface, mid-depth, and (for sites with depths greater than 25 feet) 2 meters above the bottom.

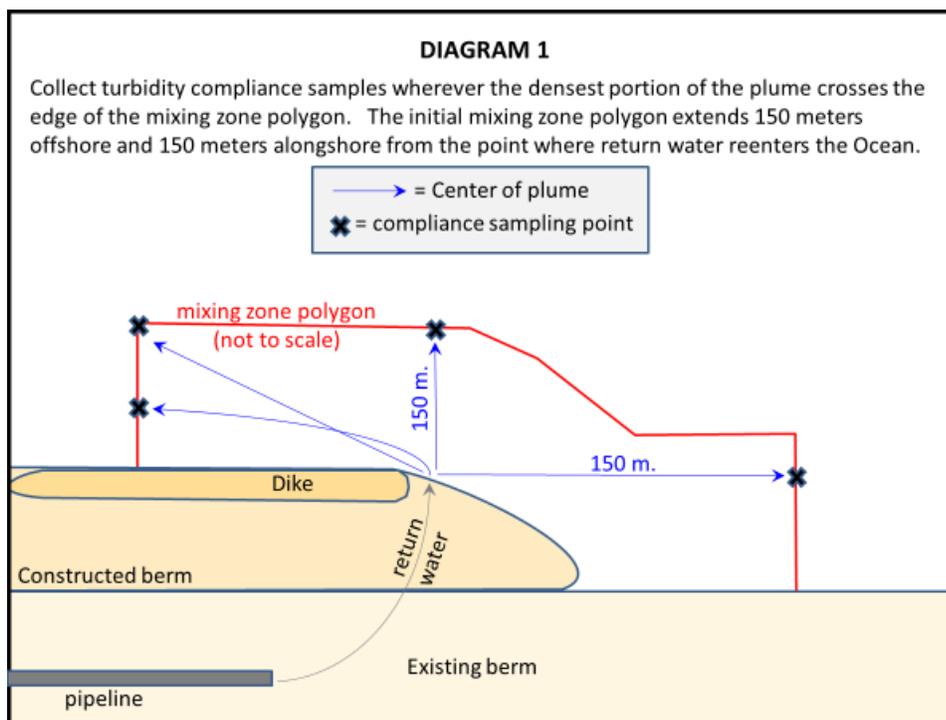
Nearshore Placement Site, using Rainbow Discharge (i.e., Surface Spray):

Frequency: At least two (2) times for each discharge episode, starting approximately 10 to 20 minutes after rainbow discharge begins (once the turbidity plume reaches the edge of the mixing zone), and again every 20 minutes until

discharge has ceased, plus at least one measurement AFTER rainbow discharge has ceased.

Background: At least 300 meters from the disposal barge or hopper dredge in the opposite direction of the prevailing current flow, clearly outside the influence of any turbid plume. Sampling shall occur at surface, mid-depth, and (for sites with depths greater than 25 feet) 2 meters above the bottom.

Compliance: No more than 150 meters downcurrent from the barge or hopper dredge, in the densest portion of any visible turbidity plume. Sampling shall occur at surface, mid-depth, and (for sites with depths greater than 25 feet) 2 meters above the bottom.



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 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.

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, construction activities shall **cease immediately** and not resume until corrective measures have been taken and turbidity has returned to acceptable levels. Any such occurrence shall also be immediately reported to the JCP Compliance Officer via email at JCPCCompliance@dep.state.fl.us and include in the subject line, "TURBIDITY EXCEEDANCE", and the Project Name and Permit Number. Also notify the Department's Southeast District office.

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, 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 turbidity levels are restored to less than 29 NTU above background. The Permittee shall notify the Department, 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.

Within 24 hours of re-commencing the construction, a report shall be emailed to the Department 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) 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;
- l. When samples cannot be collected, include an explanation in the report. 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.

NOTICE OF RIGHTS

This action is final and effective on the date filed with the Clerk of the Department unless a petition for an administrative hearing is timely filed under Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. On the filing of a timely and sufficient petition, this action will not be final and effective until further order of the Department. Because the administrative hearing process is designed to formulate final agency action, the hearing process may result in a modification of the agency action or even denial of the application.

Petition for Administrative Hearing

A person whose substantial interests are affected by the Department's action may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. Pursuant to Rule 28-106.201, F.A.C., a petition for an administrative hearing must contain the following information:

- (a) The name and address of each agency affected and each agency's file or identification number, if known;
- (b) The name, address, any email address, any facsimile number, and telephone number of the petitioner; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests are or will be affected by the agency determination;
- (c) A statement of when and how the petitioner received notice of the agency decision;
- (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
- (e) A concise statement of the ultimate facts alleged, including the specific facts that the petitioner contends warrant reversal or modification of the agency's proposed action;
- (f) A statement of the specific rules or statutes that the petitioner contends require reversal or modification of the agency's proposed action, including an explanation of how the alleged facts relate to the specific rules or statutes; and
- (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wishes the agency to take with respect to the agency's proposed action.

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The petition must be filed (received by the Clerk) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000. Also, a copy of the petition shall be mailed to the applicant at the address indicated above at the time of filing.

Time Period for Filing a Petition

In accordance with Rule 62-110.106(3), F.A.C., petitions for an administrative hearing by the applicant must be filed within 14 days of receipt of this written notice. Petitions filed by any persons other than the applicant, and other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of the notice or within 14 days of receipt of the written notice, whichever occurs first. Under Section 120.60(3), F.S., however, any person who has asked the Department for notice of agency action may file a petition within 14 days of receipt of such notice, regardless of the date of publication. The failure to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the discretion of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

Extension of Time

Under Rule 62-110.106(4), F.A.C., a person whose substantial interests are affected by the Department's action may also request an extension of time to file a petition for an administrative hearing. The Department may for good cause shown, grant the request for an extension of time. Requests for extension of time must be filed with the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, before the applicable deadline for filing a petition for an administrative hearing. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

Mediation

Mediation is not available in this proceeding.

FLAWAC Review

The applicant, or any party within the meaning of Section 373.114(1)(a) or 373.4275, F.S., may also seek appellate review of this order before the Land and Water Adjudicatory Commission under Section 373.114(1) or 373.4275, F.S. Requests for review before the Land and Water Adjudicatory Commission must be filed with the Secretary of the Commission and served on the Department within 20 days from the date when this order is filed with the Clerk of the Department.

Judicial Review

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Once this decision becomes final, any party to this action has the right to seek judicial review pursuant to Section 120.68, F.S., by filing a Notice of Appeal pursuant to Rules 9.110 and 9.190, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, M.S. 35, Tallahassee, Florida 32399-3000; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this action is filed with the Clerk of the Department.

When there has been no publication of notice of agency action or notice of proposed agency action as prescribed in Rule 62-110.106, F.A.C., a person may request a copy of the agency action. The Department shall upon receipt of such a request, if agency action has occurred, promptly provide the person with notice. The Department does not require notice of this agency action to be published. However, the applicant may elect to publish notice as prescribed in Rule 62-110.106, F.A.C., which constitutes notice to the public and establishes a time period for submittal of any petition.

Attachments: Approved Permit Drawings (13 pages, dated November 1, 2016)
Sediment QA/QC Plan (dated November 1, 2016)
Approved Physical Monitoring Plan (dated November 1, 2016)

EXECUTION AND CLERKING:

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION



Lainie Edwards, Ph.D.
Program Administrator
Beaches, Inlets and Ports Program
Division of Water Resource Management

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CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this permit and all copies were sent on the filing date below:

FILING AND ACKNOWLEDGMENT

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

Kaelyn Massey 6/12/2017
Clerk Date