



Florida Department of Environmental Protection

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3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Mimi A. Drew
Secretary

CONSOLIDATED JOINT COASTAL PERMIT AND SOVEREIGN SUBMERGED LANDS AUTHORIZATION

PERMITTEE:

Town of Hillsboro Beach
Attn.: Mayor Carmen McGarry
1210 Hillsboro Mile
Hillsboro Beach, FL 33062

AGENT:

John Studt, Project Manager
Coastal Systems International, Inc.
2047 Vista Parkway, Suite 101
West Palm Beach, Florida 33411

PERMIT INFORMATION:

Permit Number: 0289706-001-JC

Project Name: Hillsboro/Deerfield Beach
Nourishment

County: Broward County

Issuance Date: December 15, 2010

Expiration Date of Construction Phase:
December 15, 2015

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.

ACTIVITY DESCRIPTION:

The proposed project is to nourish 7,175 linear feet of shoreline, from DEP monuments R-5 to R-12+400 feet, with approximately 375,000 cubic yards of material from Broward County Borrow Area 1 (BA-1). Approximately 5,000 cubic yards of material will be used to construct a dune north of R-6.5, where it will be placed entirely landward of the MHW line. Approximately 370,000 cubic yards of material will be used to nourish the beach in the southern portion of the project area, from R-6.5 to R-12+400 feet. The existing berm height will be raised to +7.5 feet NAVD with a design profile consisting of a 1:15 (vertical:horizontal) foreshore slope transitioning to a 1:30 nearshore slope. The dune will have a crest elevation of +12 NAVD, with a slope of 1:6.

Beach compatible sediment from BA-1 will be excavated using a hydraulic cutterhead pipeline dredge. The sediment will be transported in a sand/water slurry via pipeline to the beach, and discharged to the sand placement site inside a temporary sand berm. The pipeline corridor

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will be located at the southern tip of the borrow area and run parallel to shore from approximately R-6 to R-7, then perpendicular to shore at R-7. The pipeline corridor will be located primarily over sandy bottom, with the exception of a narrow section of the continuous hardbottom at R-7, where a floating pipeline will be used to cross the hardbottom. Prior to placement on the beach, material will be screened using a 0.75 inch screen at the discharge point. All non-compatible beach material will be collected, stockpiled, and removed from the project area on a daily basis. A temporary sand berm (approximately 100 feet long) will be constructed at the beach discharge point, and will be moved along the beach as the discharge point advances, to maximize the deposition of sand on the beach, while minimizing turbidity and sedimentation.

ACTIVITY LOCATION:

The nourishment site is located from DEP monuments R-5 to R-12+400 feet, in Broward County, Sections 5, 8 and 17, Township 48 South, Range 43 East, Atlantic Ocean, Class III Waters. The offshore borrow area, BA-1, is located approximately 1,170 feet offshore of Deerfield Beach. The long axis of BA-1 is oriented roughly north-south and extends from approximately R-1 to R-5, in the Atlantic Ocean, Class III Waters.

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 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 18-21 and Section 62-343.075, 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 activity 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.

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. This permit also 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 (USACE) for review. The USACE will issue their authorization directly to you, or contact you if additional information is needed. If you have not heard from the USACE within 30 days from the date that your application was received by the Department, contact the nearest USACE regulatory office for status and further information. Failure to obtain USACE 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 outlined in the activity description and activity location of this permit and 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 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.

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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 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 an 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

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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 the 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)

SPECIFIC CONDITIONS:

1. All reports or notices relating to this permit shall be sent to the DEP, Bureau of Beaches and Coastal Systems, JCP Compliance Officer, 3900 Commonwealth Boulevard, Mail Station 300, Tallahassee, Florida 32399-3000 (e-mail address: [JCP Compliance@dep.state.fl.us](mailto:JCPCompliance@dep.state.fl.us)).
2. No work shall be conducted under this permit until the Permittee has received a written Notice to Proceed from the Department. At least 30 days prior to the requested date of issuance of the notice to proceed, the Permittee shall submit the following for review and approval by the Department:
 - a. Two hard copies and an electronic copy of detailed *final construction plans and specifications* for all authorized activities (including a vessel operations plan) that are consistent with the project description, conditions and drawings of this permit. These documents shall be signed and sealed by the design engineer who must be registered in the State of Florida, and shall bear the certifications specified in Rule 62B-41.007(4), F.A.C. The plans and specifications shall include a description of the

- dredging and beach construction methods to be utilized and drawings and surveys that show all biological resources and work spaces (e.g., anchoring area, pipeline corridors, staging areas, boat access corridors, etc.) to be used for this project.
- b. ***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.
 - c. A revised detailed ***Physical Monitoring Plan***, as described in Specific Condition No. 39, indicating the performance of the beach fill project, identifying erosion and accretion patterns within the monitored area. In addition, the report shall include a comparative review of project performance to performance expectations and identification of adverse impacts attributable to the project.
 - d. A copy of the Contractor's Environmental Protection Plan, or equivalent, that provides project-specific details of the Best Management Practices (BMPs) that will be implemented to prevent erosion, turbidity and the release of hazardous substances at the dredge/scow, disposal sites and staging areas. For construction during marine turtle nesting season, the Contractor's Environmental Protection Plan shall include a description of how vessel lighting will be minimized during nighttime operations, in adherence to Specific Condition No. 21 below.
3. **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 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:

DEP, Bureau of Beaches & Coastal Systems
JCP Compliance Officer
Mail Station 300
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000
phone: (850) 414-7716

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e-mail: JCP_Compliance@dep.state.fl.us

DEP Southeast District Office
Submerged Lands & Environmental Resources
400 North Congress Avenue, Suite 200
West Palm Beach, FL 33401

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: marine.turtle@myfwc.com

If contingency mitigation plan implemented:
Florida Fish & Wildlife Conservation Commission
Division of Marine Fisheries
Artificial Reef Program,
620 S. Meridian Street
Tallahassee, FL 32399

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.

4. In the event that the contingency mitigation plan must be implemented, the Permittee shall complete the Florida Fish & Wildlife Conservation Commission's **FLORIDA ARTIFICIAL REEF MATERIALS PLACEMENT REPORT AND POST-DEPLOYMENT NOTIFICATION** using the form provided on their web page: <http://myfwc.com/docs/Conservation/FWCArtificialReefMaterialPlacementReport.pdf>.

Within 30 days following construction, the completed form shall be submitted to the Florida Fish & Wildlife Conservation Commission, Division of Marine Fisheries, Artificial Reef Program, 620 S. Meridian Street, Tallahassee, FL 32399 and a copy e-mailed to the JCP Compliance Officer. In addition to attaching the completed form, please indicate on the e-mail that the information is being submitted for the Hillsboro/Deerfield Beach Nourishment project, Permit No. 0289706-001-JC.

5. Sediment quality shall be assessed as outlined in the Sediment QA/QC Plan, which was approved on December 22, 2009 (attached). Any occurrences of unacceptable material shall be handled according to the protocols set forth in the Sediment QA/QC Plan. The

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sediment testing result shall be submitted to FDEP within 90 days following the completion of beach construction.

- a. The approved Sediment QA/QC Plan can be revised at any later time by written request of the Permittee and with the written approval of the Department. If 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.
6. A screen with openings no larger than ¾” shall be used during dredging in order to remove the large fragments from the beach fill material prior to placement on the beach. The screen may be placed on the dredge, at the discharge point, or both.
7. The Permittee shall comply with and implement the attached Dune Planting Plan approved March 2010.
8. The Permittee shall remove all Pressure Equalizing Modules (PEMs) that had been installed from 330 feet north of R-7, through R-12. PEM removal shall occur outside of peak marine turtle nesting season (November 1 to April 30).

HARDBOTTOM:

9. In addition to the hardbottom monitoring requirements in Specific Condition 10, the Permittee shall comply with and implement the attached Biological Monitoring Plan, approved August 2010.
10. For mapping and monitoring of the nearshore hardbottom and borrow area monitoring, the Permittee shall adhere to the following requirements:
 - a. **Nearshore hardbottom edge mapping.** The western portion of the nearshore hardbottom edge shall be mapped between DEP monuments R-1 and R-13. Mapping shall be conducted once prior to construction and five times following construction: twice in the first year, and once a year for three consecutive years.
 - b. **Borrow Area hardbottom edge mapping.** Mapping of the hardbottom edge adjacent to BA-1 shall be conducted once prior to construction and once immediately after construction.
 - c. **Offshore Borrow Area Transects.** A minimum of eight permanent biological monitoring transects shall be established on the offshore hardbottom between DEP monuments R-227 (Palm Beach) and R-7 (Broward) using rebar or stainless steel pins.

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- i. Prior to construction, data collection shall occur two times within a month. During construction, transects that are greater than or equal to 180 meters from the active dredge site shall be monitored once a week; transects that are between 150 and 180 meters from the active dredge site shall be monitored twice a week; and transects that are less than 150 meters from the active dredge site shall be monitored daily. After construction, transects shall be monitored once a month for four months, for a total of 4 post-construction monitoring events.
- d. **Nearshore Borrow Area Transect.** Two permanent nearshore borrow area transects, marked with rebar or stainless steel pins, shall be established outside of the project area and monitored as controls. Four permanent borrow area transects, marked with rebar or stainless steel pins, shall be established on the nearshore hardbottom west of BA-1 between R-3 and R-6. Eight permanent 1 m² quadrats shall be established and assessed along the north side of each of the nearshore borrow area transects.
 - i. Prior to construction, data collection shall occur two times within a month. During construction transects that are greater than or equal to 180 meters from the active dredge site shall be monitored once a week; transects that are between 150 and 180 meters from the active dredge site shall be monitored twice a week; and transects that are less than 150 meters from the active dredge site shall be monitored daily. After construction, transects shall be monitored once a month for four months, for a total of 4 post-construction monitoring events.
- e. At each of the offshore and nearshore borrow area assessment transects, a qualified biologist shall conduct the following assessments:
 - i. Video of the west/east and north/south transect lines;
 - ii. Sediment depth measurements;
 - iii. Sand/hardbottom intercept measurements;
 - iv. Coral Stress observations;
 - v. Permanent quadrat assessments; and
 - vi. Temporary quadrat assessments.
- f. **Nearshore Hardbottom Transects.** Ten permanent biological transects shall be established on the nearshore hardbottom between R-1 and R-15. Eight 1-m² permanent quadrats shall be established and assessed along the north side of each of the 10 transects.
- g. Transects shall be monitored during the summer prior to construction, twice during construction for a total of 2 mid-construction monitoring events, in the winter immediately after construction and then three additional monitoring events during the subsequent summers, for a total of 4 post-construction events.

- h. At each of the nearshore transects, a biologist shall conduct the following:
 - i. Video of the east/west transect line;
 - ii. Sediment depth measurements;
 - iii. Sand/hardbottom intercept measurements; and
 - iv. Quadrats assessments.
11. If any damage or excessive stress on marine organisms is found, all dredging activities shall cease immediately within 400 feet of the area of damage and the Department shall be notified within 24 hours of the survey. If the damage is detected on a weekend or holiday, the Department shall be notified on the next business day. Notification shall include a description of the damage and preliminary quantitative estimates of the damage.
 - a. As soon as possible from the time damage occurred (weather permitting) the Permittee shall submit to the Department for review and approval a detailed description of the damage including a rapid assessment survey quantifying the extent and degree of damage, photographs, a plan to prevent further damage and a plan to repair the damage, if action has not already been taken. The plan shall be implemented within 7 days of discovering the damage unless a time extension is granted by the Department. Nothing herein shall preclude the Department from taking enforcement action as a result of the damage.
12. The contractor shall push his equipment into the project area and from the project area or if pushing is not practicable, tow using floating tow lines, when within 1.5 miles of the shoreline to avoid potential cable drags impacting hardbottom areas.
13. Dredging for borrow material is prohibited within 400 feet of hardbottom communities. The Permittee shall establish and maintain (during construction) a 400 foot buffer zone separating the authorized borrow area from the nearest hardbottom communities surrounding the borrow area. The buffer area shall be marked by placing buoys 400 feet from the nearest hardbottom communities in the direction of the borrow area. If construction will occur at night, these buoys shall be either lighted or covered in both fluorescent and phosphorescent coatings. The buoys shall be placed no more than 500 feet apart to clearly identify the limits of the buffer zone. The Permittee shall ensure that these buoys are maintained continuously for as long as dredging occurs at the borrow area. The Permittee shall inform the dredging contractor of this requirement, and show the buffer zone on the contract drawings.
 - a. During all dredging operations, the Permittee shall require the dredging contractor to have electronic positioning equipment that continuously measures the vertical and horizontal location of the cutterhead at all times during construction operation. The horizontal positioning equipment shall be installed on the dredge so as to monitor the

actual location of the dredge equipment and be interfaced with the depth-monitoring device. This equipment shall provide a permanent record of the position referenced to State Plane Coordinates and NAVD 88. As part of the final report, the Permittee shall provide a daily record of the position of the dredge equipment, which includes the dredge area limits and the buffer zone with actual and maximum authorized dredge depth referenced to state plane coordinates and NAVD 88. Vertical and horizontal accuracy of the positioning equipment shall also be reported. If at any time the dredging encroaches into the buffer zone or exceeds the authorized dredged depth, the Department shall be notified within 24 hours.

14. Hardbottom monitoring reports detailing the findings of each sampling event shall be submitted to the Department within 90 days of completion of the field surveys, except for the pre-construction report, which shall be submitted 60 days after the completion of the survey.

CONTINGENCY MITIGATION:

15. The Permittee shall comply with and implement the attached Contingency Mitigation Plan (approved March 2010) in the event that biological monitoring reveals direct or indirect impacts to hardbottom have occurred. If the Contingency Mitigation Plan differs from the following details, this permit condition shall prevail.
 - a. The nearshore mitigation reef shall be located approximately 64 feet from the eastern edge of the nearshore hardbottom, between R-7 and R-8, in 15-20 feet of water.
 - b. A 50-foot buffer shall be maintained between the mitigation reef and the nearshore hardbottom.
 - c. In order to limit subsidence of the boulders that will be used to construct the mitigation reef, the artificial reef shall be constructed in an area with 2 to 3 feet of sand covering the underlying rock ridge.
 - d. Limestone boulders shall be used to construct the mitigation reef. The boulders for the nearshore mitigation reef shall be between 3 and 4 feet in diameter in order to provide a vertical relief of 1 to 2 feet after the boulders subside into the sand.
 - e. The borrow area mitigation reef shall be constructed of limestone boulders with similar relief to the hardbottom impacted and located in water depth similar to the area of impact.

MANATEES:

16. The Permittee shall comply with the following conditions intended to protect manatees from direct project effects:
 - a. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. The Permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.
 - b. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels shall follow routes of deep water whenever possible.
 - c. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.
 - d. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shutdown if a manatee(s) comes within 50 feet of the operation. Activities shall not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.
 - e. Any collision with or injury to a manatee shall be reported immediately to the FWC Hotline at 1-888-404-FWCC. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-232-2580).
 - f. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the Permittee upon completion of the project. Awareness signs that have already been approved for this use by the Florida Fish and Wildlife Conservation Commission (FWC) must be used. One sign measuring at least 3 feet by 4 feet which reads *Caution: Manatee Area* must be posted in a location prominently visible to all personnel engaged in water-related activities. A second sign measuring at least 8 ½ inches by 11 inches explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations must be posted on vessels associated with the construction, and should be placed visible to the vessel operator.

Marine Turtle Protection Conditions

17. **Pre-Construction Meeting.** A meeting between representatives of the contractor, the Service, the FWC, and the permitted sea turtle surveyor prior to the commencement of work on this project must be held. At least 10 business days advance notice must be provided prior to conducting this meeting. This will provide an opportunity for explanation and/or clarification of the sea turtle and piping plover protection measures as well as additional guidelines when construction occurs during the nesting season such as storing equipment, minimizing driving, and follow up meetings during construction.
18. Beach nourishment shall be started after October 31 and be completed before May 1. During the May 1 through October 31 period, no construction equipment or pipes shall be placed and/or stored on the beach.
19. **Marine Turtle Nest Surveys.** If the beach nourishment project is conducted during the period from March 1 through May 1 or November 1 through November 30, early morning surveys for sea turtle nests must be conducted daily from March 1 through September 30 or the end of the nesting season.
 - a. Sea turtle nesting surveys and egg relocations shall only be conducted by persons with prior experience and training in these activities and who is duly authorized to conduct such activities through a valid permit issued by FWC, pursuant to FAC 68E-1. Nesting surveys must be conducted daily between sunrise and 9 a.m.
 - b. The contractor shall not initiate work until daily notice has been received from the sea turtle permit holder that the morning survey has been completed. Surveys must be performed in such a manner so as to ensure that construction activity does not occur in any location prior to completion of the necessary sea turtle protection measures.
 - c. The surveys shall be conducted and eggs shall be relocated per the following requirements.
 - i. Only those nests that may be affected by material placement shall be relocated. Nests requiring relocation shall be moved no later than 9 a.m. the morning following deposition to a nearby self-release beach site in a secure setting where artificial lighting will 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 or known to routinely experience severe erosion and egg loss, or subject to artificial lighting. Nest relocations in association with construction activities shall cease when construction activities no longer threaten nests.

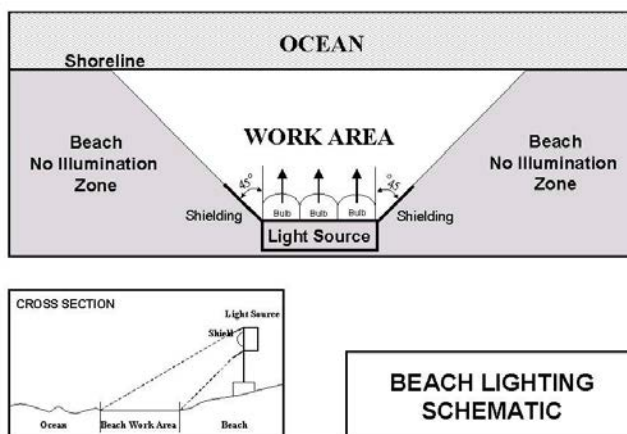
- ii. Sea turtle nests deposited where the project activities have ceased or will not occur for 65 days shall be marked and left *in situ* unless other factors threaten the success of the nest. The turtle permit holder shall install an on-beach marker at the nest site and/or a secondary marker at a point landward as possible to assure that future location of the nest will be possible should the on-beach marker be lost. A series of stakes and highly visible survey ribbon or string shall be installed to establish a 10-foot radius around the nest. No activity shall occur within this area, nor shall any activities occur which 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 activities.
 - iii. Reports on all nesting activity shall be provided for the initial nesting season and for a minimum of three additional nesting seasons if placed material still remains on the beach. Monitoring of nesting activity in the seasons following construction shall include daily report sheets noting all activity, nesting success rates, hatching success of all relocated nests, hatching success of a representative sampling of nests left in place (if any), dates of construction and names of all personnel involved in nest surveys and relocation activities. Data should be reported separately for the nourished areas and for an equal length of adjacent beach that is not nourished in accordance with the attached Table. Summaries of nesting activity shall be submitted in electronic format (Excel spreadsheets). All reports should be submitted to the Tequesta office with a copy to the Tallahassee office by January 15 of the following year.
20. From March 1 through April 30, the contractor must not extend the beach fill more than 500 feet along the shoreline between dusk and the following day unless nighttime nesting surveys are conducted. If nighttime surveys are not conducted, no construction activities may proceed outside the 500 feet of shoreline outlined above, until completion of the morning sea turtle surveys and the necessary nest relocations have been completed.

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Table 1. Marine Turtle Monitoring for Beach Restoration Projects

Characteristic	Parameter	Measurement	Variable
Nesting Success	False crawls - number	Visual assessment of all false crawls	Number and location of false crawls in fill areas and nonfill areas: any interaction of the turtle with obstructions, such as groins, seawalls, or scarps, should be noted.
	False crawl - type	Categorization of the stage at which nesting was abandoned	Number in each of the following categories: emergence-no digging, preliminary body pit, abandoned egg chamber.
	Nests	Number	The number of marine turtle nests in filled and nonfilled areas should be noted. If possible, the location of all marine turtle nests shall be marked on map of project, and approximate distance to sea walls or scarps measured using a meter tape. Any abnormal cavity morphologies should be reported as well as whether turtle touched groins, seawalls, or scarps during nest excavation
		Lost Nests	The number of nests lost to inundation, erosion or the number with lost markers that could not be found.
	Lighting Impacts	Disoriented sea turtles	The number of disoriented hatchlings and adults shall be documented and reported in accordance with existing FWC protocol for disorientation events.
Reproductive Success	Emergence & hatching success	Standard survey protocol	Numbers of the following: unhatched eggs, depredated nests and eggs, live pipped eggs, dead pipped eggs, live hatchlings in nest, dead hatchlings in nest, hatchlings emerged, disoriented hatchlings, depredated hatchlings per each nest.

21. **Project Lighting.** During the early (March 1- April 30) and latter (November 1 - November 30) portions of marine turtle nesting and hatching season, all on-beach lighting associated with the project shall be limited to the immediate area of active construction only and shall be minimized through reduction, shielding, lowering, and appropriate placement of lights to avoid excessive illumination. Lighting on offshore equipment shall be similarly minimized through reduction, shielding, lowering, and appropriate placement of lights to avoid excessive illumination of the water, while meeting all U.S. Coast Guard and OSHA requirements.



22. Artificial beachfront lighting in the beach nourishment area must be addressed by the Permittee and appropriate compliance entity in both municipalities. Prior to sand placement, the Permittee shall arrange a conference call with FWC and FWS staff to discuss the process by which lighting surveys will be conducted and the process for ensuring compliance and enforcement with the existing ordinance. The lighting ordinance adopted by the county or municipality must be followed and enforced. For each light not in compliance, the applicant or local sponsor must provide documentation that the property owner(s) has been notified of the problem light with recommendations for correcting the light. Recommendations must be in accordance with the county's or municipalities' specific lighting ordinance. The Permittee or local sponsor must complete a survey by May 15 of all lighting visible from the nourished beach, using standard techniques for such a survey. A summary report of the survey and documentation of property owner notification must be submitted to FWC by June 1 of that nesting season. Additional lighting surveys must be conducted by June 15, July 15, August 15, and September 15 of that nesting season and results reported by the 1st of the following month; and a final summary report provided by December 15 of that year.
23. **Equipment Storage.** Staging areas for construction equipment for sand placement shall be located off the beach to the maximum extent practicable from April 15 to October 31.

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- a. Nighttime storage of the beach restoration project construction equipment not in use shall be off the beach to minimize disturbance to sea turtle nesting and hatching activities.
 - b. 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, in accordance with the following:
 - i. Temporary storage of pipes shall be off the beach to the maximum extent possible.
 - ii. Temporary storage of pipes on the beach shall be in such a manner so as to impact the least amount of nesting habitat and shall not compromise the integrity of the dune systems.
 - iii. Pipes placed parallel to the dune shall be five to ten feet away from the toe of the dune.
24. **Fill Restrictions.** During nesting season, 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.
- a. If the 500 feet is not feasible for the project, an agreed upon distance shall be decided on during the preconstruction meeting.
 - b. Once the beach has been cleared and the necessary nest relocations have been completed, the contractor is allowed to proceed with the placement of fill during daylight hours until dusk at which time the 500-foot length limitation shall apply.
25. **Beach Maintenance.** All derelict concrete, metal, and coastal armoring material and other debris shall be removed from the beach prior to any dredged material placement to the maximum extent practicable. If debris removal activities will take place from April 15 through September 30, the work shall be conducted during daylight hours only and shall not commence until completion of the sea turtle survey each day. All excavations and temporary alterations of the beach topography shall be filled or leveled to the natural beach profile prior to 9 p.m. each day.
26. **Compaction Sampling.** Immediately after completion of the beach nourishment project and prior to April 15 for 3 subsequent years, sand compaction shall be monitored in the area of sand placement in accordance with the following protocols:
- 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 a depth of 6, 12, and 18 inches three times (three replicates). 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. If the average value for any depth exceeds 500 psi for any two or more adjacent stations, then that area shall be tilled prior to April 15.
 - d. 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 consultation with the FWC shall be required 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.
27. **Tilling Requirements.** Immediately after completion of the beach fill placement event, and prior to April 1 for 3 subsequent years, if placed sand still remains on the beach, the beach shall be tilled as described below or the applicant may follow the procedure outlined below to request a waiver of the tilling requirement. During tilling, at a minimum, the protocol provided below shall be followed:
- a. The area shall be tilled to a depth of 36 inches. All tilling activity must be completed prior to April 1. Each pass of the tilling equipment shall be overlapped to allow more thorough and even tilling. Tilling should occur landward of the wrack line and avoid all vegetated areas 3 square feet or greater with a 3 foot buffer around the vegetated areas.
 - b. An annual summary of compaction surveys and the actions taken shall be submitted to the FWC.
 - c. If the project is completed just before the nesting season, tilling shall not occur in areas where nests have been left in place or relocated unless authorized by the U.S. Fish and Wildlife Service in an Incidental Take Statement.

- d. This condition shall be evaluated annually and may be modified if necessary to address sand compaction problems identified during the previous year.
 - e. To request a waiver of the tilling requirement, the Permittee may measure sand compaction in the area of restoration in accordance with a protocol agreed to by the FWC, the Department, the U.S. Fish & Wildlife Service, and the applicant to determine if tilling is necessary.
28. **Escarpment Surveys.** Visual surveys for escarpments along the beach fill area shall be made immediately after completion of the beach nourishment project and between March 15 and April 15 for the following three years if placed sand still remains on the beach. All scarps shall be leveled or the beach profile shall be reconfigured to minimize scarp formation. In addition, weekly surveys of the project area shall be conducted during the two nesting seasons following completion of fill placement as follows:
- a. The number of escarpments and their location relative to DNR-DEP reference monuments shall be recorded during each weekly survey and reported relative to the length of the beach surveyed (e.g., 50% scarps). Notations on the height of these escarpments shall be included (0 to 2 feet, 2 to 4 feet, and 4 feet or higher) as well as the maximum height of all escarpments.
 - b. Escarpments that interfere with sea turtle nesting or that exceed 18 inches in height for a distance of 100 feet shall be leveled to the natural beach contour by April 15. Any escarpment removal shall be reported relative to R-monument.
 - c. If weekly surveys during the marine turtle nesting season document subsequent reformation of escarpments that exceed 18 inches in height for a distance of 100 feet, the FWC shall be contacted immediately to determine the appropriate action to be taken. Upon written notification, the Permittee shall level escarpments in accordance with mechanical methods prescribed by the FWC.
29. **Marine Turtle or Nest Encounters.** Upon locating a dead, injured, or sick endangered or threatened sea turtle specimen, initial notification must be made to the FWC at 1-888-404-FWCC. Care should be taken in handling sick or injured specimens to ensure effective treatment and care and in handling dead specimens to preserve biological materials in the best possible state for later analysis of cause of death. In conjunction with the care of sick or injured endangered or threatened species or preservation of biological materials from a dead animal, the finder has the responsibility to ensure that evidence intrinsic to the specimen is not unnecessarily disturbed. In the event a sea turtle nest is excavated during construction activities, all work shall cease in that area immediately and the permitted person responsible for egg relocation for the project should be notified so the eggs can be moved to a suitable relocation site.

30. Reports on the distribution and abundance of marine turtles in the vicinity of the nearshore hard bottom within the placement area shall be provided.
- a. Surveys will be conducted twice a year for three years for a total of 6 surveys: one pre-construction survey in the summer, one immediate post-construction in the winter and one survey twice a year for the first two years post construction. The towed diver surveys shall be conducted along the nearshore hard bottom between DEP Monuments R-3 and R-15. Two divers shall be towed parallel to the north/south axis of the nearshore hard bottom on a day with good underwater visibility. Each tow shall be conducted approximately 50 feet inside the boundary of the hard bottom to maximize visual coverage of the area.
 - b. One additional diver shall be used in a few areas where the hard bottom is 300 to 600 feet wide. This diver shall be towed along the centerline of the hard bottom in a north/south direction. The diver tow transect lines shall be based on the mapped boundaries of the nearshore had bottom and DGSI shall be used to maintain course along a predetermined heading.
 - c. To the degree possible, species, age class, activity and location (GPS coordinates if possible) shall be collected for all animals observed. Daily survey sheets shall be submitted to FWC within 60 days of monitoring; an annual summary shall be provided by January 15 of the following year.

Shorebird Monitoring

31. *Shorebird Surveys.* Shorebird surveys should be conducted by trained, dedicated individuals (Shorebird Monitor) with proven shorebird identification skills and avian survey experience. Credentials of the Shorebird Monitor shall be submitted to the FWC Regional Biologist for review and approval. Shorebird Monitors shall use the following survey protocols:
- a. *Nesting Season Surveys.* Shorebird Monitors should review and become familiar with the general information and data collection protocols outlined on the FWC's Beach-Nesting Bird Website (<http://myfwc.com/shorebirds/BNB/default.asp>). An outline of what data should be collected, including downloadable field data sheets, is available on the website.
 - i. Nesting season surveys shall begin on April 1 (or February 15 in snowy plover habitat) or 10 days prior to project commencement (including surveying activities and other pre-construction presence on the beach), whichever is later, and be conducted daily throughout the construction period or through August, whichever

is earlier. Weekly surveys of the project site shall continue through August or through fledgling or loss of identified nests or hatchlings, whichever is later.

- ii. Nesting season surveys shall be conducted in all potential beach-nesting bird habitat within the project boundaries that may be impacted by construction or pre-construction activities during the nesting season. Portions of the project in which there is no potential for project-related activity during the nesting season may be excluded.
 - iii. Surveys for detecting new nesting activity shall be completed on a daily basis prior to movement of equipment, operation of vehicles, or other activities that could potentially disrupt nesting behavior or cause harm to the birds or their eggs or young.
 - iv. Surveys should be conducted by traversing the length of the project area and visually inspecting, using binoculars or spotting scope, for the presence of shorebirds exhibiting breeding behavior.
 - v. If an ATV or other vehicle is needed to cover large project areas, the vehicle must be operated at a speed <6 mph, shall be run at or below the high-tide line, and the Shorebird Monitor shall stop at no greater than 200 meter intervals to visually inspect for nesting activity.
 - vi. Once breeding is confirmed by the presence of a scrape, eggs, or young, the Bird Monitor shall notify the Regional Nongame Biologist of the FWC within 24 hours.
 - vii. All breeding activity shall be reported to the Beach-Nesting Bird website within one week of data collection.
- b. *Non-Breeding Shorebird Surveys.* Data collected on non-breeding shorebirds should be compatible with, and reported to, the Shorebird-Seabird Occurrence Database (<http://myfwc.com/shorebirds>).
- i. Surveys for non-breeding shorebirds should begin 14 days prior to construction commencement and be conducted once every 2 weeks for at least one year post-construction. Data collected during these surveys will provide valuable information on the use of nourished beaches to shorebirds.
 - ii. Survey for non-breeding shorebirds shall include all potential shorebird habitat within the project boundary.

- iii. Data should be entered into the database within one month of collection.
32. *Buffer Zones and Travel Corridors.* Within the project area, the Permittee shall establish a 300 ft-wide buffer zone around any location where shorebirds have been engaged in nesting behavior, including territory defense. Any and all construction activities, including movement of vehicles, should be prohibited in the buffer zone.
- a. The width of the buffer zone shall be increased if birds appear agitated or disturbed by construction or other activities in adjacent areas.
 - b. Site-specific buffers may be implemented upon approval by FWC as needed.
 - c. Reasonable and traditional pedestrian access should not be blocked where nesting 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 nesting was initiated within 300 feet of an established beach access pathway. The Permittee shall work with FWC staff to determine if pedestrian access can be accommodated without compromising nesting success.
 - d. Designated buffer zones must be posted with clearly marked signs around the perimeter. If pedestrian pathways are approved within the 300-foot buffer zone, these should be clearly marked. These markings shall be maintained until nesting is completed or terminated. In the case of solitary nesters, nesting is not considered to be completed until all chicks have fledged.
 - e. No construction activities, movement of vehicles, or stockpiling of equipment shall be allowed within the buffer area.
33. FWC-approved travel corridors shall be designated and marked outside the buffer areas. Heavy equipment, other vehicles, or pedestrians may transit past nesting areas in these corridors. However, other activities such as stopping or turning shall be prohibited within the designated travel corridors adjacent to the nesting site.
- a. Where such a travel corridor must be established within the project area it should avoid critical areas for shorebirds (known nesting sites, wintering grounds, FWC-designated Critical Wildlife Areas, and USFWS-designated critical piping plover habitat) as much as possible, and be marked with signs clearly delineating the travel corridor from the shorebird buffer areas described above.
 - b. To the degree possible, the Permittee should maintain some activity within these corridors on a daily basis, without directly disturbing any shorebirds documented on site or interfering with sea turtle nesting, especially when those corridors are

- established prior to commencement of construction. Passive methods to modify nesting site suitability must be approved by FWC Regional Biologist for that region.
34. *Notification.* If shorebird nesting occurs within the project area, a bulletin board shall be placed and maintained in the construction area with the location map of the construction site showing the bird nesting areas and a warning, clearly visible, stating that “BIRD NESTING AREAS ARE PROTECTED BY THE FLORIDA THREATENED AND ENDANGERED SPECIES ACT AND THE STATE AND FEDERAL MIGRATORY BIRD ACTS”.
35. *Beach Contours.* All tilling and scarp removal should be done outside the shorebird nesting season. It is the responsibility of the contractors to avoid tilling or scarp removal in areas where nesting birds are present.
- a. 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.
 - b. The slope between the mean high water line and the mean low water line must be maintained in such a manner as to approximate natural slopes.
36. *Placement of Equipment and Sand.* 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 should be placed landward of the site before birds are active in that area. No pipe or sand shall be placed seaward of a known shorebird nesting site during the shorebird nesting season.

TUBIDITY MONITORING:

37. Water Quality - Turbidity - Nephelometric Turbidity Units (NTUs)
- Frequency: Turbidity sampling and analysis shall be performed at least 3 times a day, four hours apart, during all dredging or filling operations.
- Tidal Influence: Compliance samples shall be compared to background samples that are comparably affected by in-coming or out-going tides, such that turbidity levels at the background sites are indicative of what turbidity levels should be at the compliance sites in the absence of the project. Therefore sampling times and locations shall be established accordingly.

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Background: The samples shall be collected at the surface, mid-depth and 2 meters from the bottom, outside the influence of any artificially generated turbidity plume.

Dredge Site: approximately 150 meters in the opposite direction of the prevailing current flow.

Beach Site: at least 150 meters upcurrent from the beach discharge site, and at least 150 meters away from any turbid plume associated with the project, at the same offshore distance as the corresponding compliance location, below.

Compliance: The samples shall be collected at the surface, mid-depth and 2 meters from the bottom, in the densest portion of any visible turbidity plume generated by this project.

Dredge Site: Samples shall be taken at the following locations: 150 meters downcurrent from the dredge site and within the densest portion of any visible turbidity plume (the primary compliance site); 100 meters west of the primary compliance site; and 100 meters east of the primary compliance site. If, at any time, the turbidity plume encroaches into the hardbottom buffer area (within 400 feet of hardbottom), an additional sampling shall be conducted where the plume intersects the edge of the hardbottom.

Beach Site: Samples shall be collected in the densest portion of the turbidity plume, 150 meters downcurrent and no more than 100 meters offshore from the point where runoff from the dredged slurry enters the ocean. If no turbidity plume is visible, samples shall be taken 150 meters downcurrent and 100 meters offshore from the point where runoff from the dredged slurry enters the ocean.

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 are greater than 29 NTUs above the associated 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 occurrences shall also be reported to the JCP Compliance Officer at (850) 414-7716 and the DEP Southeast District Office at (561) 681-6600 within 24 hours of the time the violation is first detected.

38. Turbidity monitoring reports shall be submitted to the Department on a weekly basis within seven (7) days of collection. Reports shall be submitted under a cover letter

containing the following statement: "**This information is provided in partial fulfillment of the monitoring requirements in Permit No. 0289706-001-JC, Hillsboro/Deerfield Beach Nourishment.**" The cover letter shall summarize any significant compliance issues and the dates or monitoring period of the reports. Also, please clearly reference the permit number on each page of the reports. In addition to analytical results for samples and quality control, each report should also include:

- a. Specific monitoring requirements for the sampling location;
- b. Time and date samples were taken;
- c. Sampling results, the net difference between compliance and background results, and whether the turbidity level is in compliance.
- b. Depth of water body and depth of samples;
- c. Antecedent weather conditions, including wind direction and velocity;
- d. Tidal stage and direction of flow;
- e. A statement describing the methods used in collection, handling and analysis of the samples;
- f. Turbidity meter calibration/verification documentation;
- g. A map indicating the location of the current construction activity, the sampling locations (background and compliance), the visible plume pattern of the applicable mixing zone, and location of nearby Outstanding Florida Waters, if applicable; and
- h. A statement by the individual responsible for implementation of the sampling program concerning the authenticity, precision, limits of detection and accuracy of the data.

PHYSICAL MONITORING:

39. Pursuant to 62B-41.005(16), F.A.C., physical monitoring of the project is required through acquisition of project-specific data to include, at a minimum, topographic and bathymetric surveys of the beach, offshore, and borrow site areas, and engineering analysis. The monitoring data is necessary in order for both the project sponsor and the Department to regularly observe and assess, with quantitative measurements, the performance of the project, any adverse effects which have occurred, and the need for any adjustments, modifications, or mitigative response to the project. The scientific monitoring process also provides the project sponsor and the Department information

necessary to plan, design, and optimize subsequent follow-up projects, potentially reducing the need for and costs of unnecessary work, as well as potentially reducing any environmental impacts that may have occurred or be expected.

Prior to issuance of the Notice to Proceed, the Permittee shall submit a detailed Monitoring Plan subject to review and approval by the Department. The Monitoring Plan shall indicate the project's predicted design life.

The approved 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 within 90 days prior to commencement of construction, and within 60 days following completion of construction of the project. Thereafter, monitoring surveys shall be conducted annually for a period of three (3) years, then biennially 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 immediate post-construction survey and the first annual monitoring survey is less than six months, then the Permitted may request a postponement of the first monitoring survey until the following spring/summer. The request should be submitted as part of the cover letter for the post-construction report. A prior design survey of the beach and offshore may be submitted for the pre-construction survey if consistent with the other requirements of this condition.

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 at least 5,000 feet of the adjacent shoreline on both sides of the beach fill area. For those project areas that contain erosion control structures, such as groins or breakwaters, additional profile lines shall be surveyed at a sufficient number of intermediate locations to accurately identify patterns of erosion and accretion within this subarea. All work activities and deliverables shall be conducted in accordance with the latest update of the Bureau of Beaches and Coastal Systems (BBCS) *Monitoring Standards for Beach Erosion Control Projects, Sections 01000 and 01100*.

- b. Bathymetric surveys of the borrow area(s) shall be conducted within 90 days prior to commencement of construction, and within 60 days following completion of construction of the project concurrently with the beach and offshore surveys required above. Thereafter, monitoring surveys of the borrow areas shall be dependent on their location. Borrow sites located in tidal inlet shoals or in nearshore waters above the depth of closure for littoral transport processes shall be at two (2) year intervals concurrently with the beach and offshore surveys required above. These biennially monitoring surveys are not required for borrow sites located below the depth of closure for littoral transport processes. A prior design survey of the borrow area may be submitted for the pre-construction survey if consistent with the other requirements of this condition.

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. For borrow sites located in tidal inlet shoals, bathymetric surveys of the entire shoal complex, including any attachment bars, shall be conducted unless otherwise specified by the Department based upon the size of the shoal and the potential effects of the dredging on inlet processes. In all other aspects, work activities and deliverables shall be consistent with the *BBCS 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 post-construction survey and each annual or 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. In addition, the report shall include a comparative review of project performance to performance expectations and identification of adverse impacts attributable to the project.

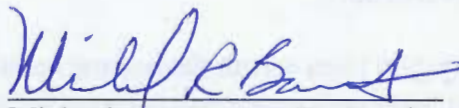
Appendices shall include plots of survey profiles and graphical representations of volumetric and shoreline position changes for the monitoring area. Results shall be analyzed for patterns, trends, or changes between annual surveys and cumulatively since project construction.

- d. Two paper copies and one electronic copy of the monitoring report, and one electronic copy of the survey data shall be submitted to the Bureau of Beaches and Coastal Systems 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 Bureau, 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 Item No. [XX] of the approved Monitoring Plan for Permit No. [XX] for the monitoring period [XX]."

Executed in Tallahassee, Florida.

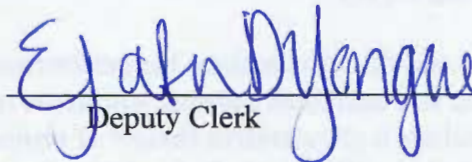
STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



Michael R. Barnett, P.E., Chief
Bureau of Beaches and Coastal Systems

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.

 12/15/10
Deputy Clerk Date

Prepared by Stephanie Gudeman.

Attachments: Approved Permit Drawings (41 pages)
Biological Monitoring Plan (Approved August 2010)
Sediment QA/QC Plan (Approved December 22, 2009)
Dune Planting Plan (Approved March 2010)
Contingency Mitigation Plan (Approved March 2010)