



FLORIDA DEPARTMENT OF Environmental Protection

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

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

CONSOLIDATED MAJOR MODIFICATION TO JOINT COASTAL PERMIT AND SOVEREIGN SUBMERGED LANDS AUTHORIZATION

PERMITTEE:

City of Boca Raton
Municipal Services
2500 N.W. 1st Avenue
Boca Raton, FL 33431

AGENT:

Peter Seidle, P.E.
Applied Technology & Management
2047 Vista Parkway, Suite 201
West Palm Beach, FL 33411

PERMIT INFORMATION:

Permit Number: 0261499-011-JM

Project Name: North Boca Raton Beach Nourishment

County: Palm Beach

Issuance Date: January 14, 2019

Expiration Date: September 12, 2028

REGULATORY AUTHORIZATION:

This major modification to Permit No. 0261499-004-JM is issued under the authority of Chapter 161 and Part IV of Chapter 373, Florida Statutes (F.S.), and Title 62, Florida Administrative Code (F.A.C.). Pursuant to Operating Agreements executed between the Department of Environmental Protection (Department) and the water management districts, as referenced in Chapter 62-113, F.A.C., the Department is responsible for reviewing and taking final agency action on this activity. This major modification, hereafter referred to as Permit No. 0261499-011-JM, **supersedes** previous Permit No. 0261499-004-JM. Changes to previous Permit No. 0261499-004-JM are shown as ~~strike throughs~~ (deletions) or underlines (additions).

PROJECT DESCRIPTION:

The project is to periodically nourish 2.8 miles of beach in two segments of shoreline using beach compatible sand from six ~~three~~ offshore borrow areas. For a one-time event during the life of the permit, the Boca Raton Inlet Ebb Shoal may also be used as a supplemental source of sand, with the dredged volume not to exceed 70,000 cubic yards. The average berm width is 230 feet at an elevation of up to +10 feet (NAVD), with a seaward berm slope of 1:100 (V:H) and a foreshop construction slope of 1:15 (V:H) from +6.5 feet NAVD to existing grade.

**Joint Coastal Permit
North Boca Raton Beach Nourishment
Permit No. 0261499-011-JM
Page 2 of 35**

PROJECT LOCATION:

The nourishment site is located in North Boca Raton, Palm Beach County, Sections 9, 16, 21 and 28, Township 47 East, Range 43 East. Borrow Area (BA) I is located approximately 3,000 feet offshore, between R-207 and R-211. BA II is located approximately 3,000 feet offshore, between R-212 and R-218. BA III is located approximately 3,000 feet offshore, between R-219 and R-222 or Boca Raton Inlet. BA IV is located approximately 1,700 feet offshore, between R-190 and R-193. BA V is located approximately 1,600 feet offshore, between R-192 and R-198. BA VI is located approximately 1,700 feet offshore, between R-197 and R-202. The Boca Raton Inlet Ebb Shoal is located approximately between R-222 and R-224, just east of the entrance to Boca Raton Inlet. The beach nourishment site and the borrow areas are located in the Atlantic Ocean, Class III Waters, not in Outstanding Florida 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, 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, F.A.C., Chapter 18-21 and Section 62-330.075, F.A.C., and the policies of the Board of Trustees.

As staff to the Board of Trustees, the Department has reviewed the project described above, and has determined that the beach nourishment 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.

The Department has also determined that the use of the borrow areas for greater than 5 years requires a public easement, pursuant to Chapter 253.77, F.S. The Department intends to issue the public easement, subject to the conditions outlined in the previously issued *Consolidated Intent to Issue* and in the Recommended Proprietary Action (entitled *Delegation of Authority*).

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

**Joint Coastal Permit
North Boca Raton Beach Nourishment
Permit No. 0261499-011-JM
Page 3 of 35**

COASTAL ZONE MANAGEMENT:

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

WATER QUALITY CERTIFICATION:

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

OTHER PERMITS:

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

AGENCY ACTION:

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

GENERAL CONDITIONS:

1. All activities authorized by this permit shall be implemented as set forth in the 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

**Joint Coastal Permit
North Boca Raton Beach Nourishment
Permit No. 0261499-011-JM
Page 4 of 35**

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 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

**Joint Coastal Permit
North Boca Raton Beach Nourishment
Permit No. 0261499-011-JM
Page 5 of 35**

JCPCompliance@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 JCPCompliance@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 JCPCompliance@dep.state.fl.us.

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.

**Joint Coastal Permit
North Boca Raton Beach Nourishment
Permit No. 0261499-011-JM
Page 6 of 35**

3. Authorizations may be modified, suspended or revoked in accordance with their terms or the remedies provided in Sections 253.04 and 258.46, F.S., or Chapter 18-14, F.A.C.
4. Structures or activities shall be constructed and used to avoid or minimize adverse impacts to sovereignty submerged lands and resources.
5. Construction, use or operation of the structure or activity shall not adversely affect any species that is endangered, threatened or of special concern, as listed in Rules 68A-27.003, 68A-27.004 and 68A-27.005, F.A.C.
6. Structures or activities shall not unreasonably interfere with riparian rights. When a court of competent jurisdiction determines that riparian rights have been unlawfully affected, the structure or activity shall be modified in accordance with the court's decision.
7. Structures or activities shall not create a navigational hazard.
8. Structures shall be maintained in a functional condition and shall be repaired or removed if they become dilapidated to such an extent that they are no longer functional. This shall not be construed to prohibit the repair or replacement subject to the provisions of Rule 18-21.005, F.A.C., within one year, of a structure damaged in a discrete event such as a storm, flood, accident or fire.
9. Structures or activities shall be constructed, operated and maintained solely for water dependent purposes, or for non-water dependent activities authorized under paragraph 18-21.004(1)(f), F.A.C., or any other applicable law.

SPECIFIC CONDITIONS:

1. The terms, conditions, and provisions of the required easement shall be met (modification to Easement No. 40281). The Notice to Proceed shall not be issued and construction of this activity 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.
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. ***Final construction plans and specifications.*** If the Permittee needs to adjust the landward extent of fill, to account for recent erosion or accretion, the adjustment to the fill site and borrow area shall be identified in the final plans and specifications and submitted for the Department's approval.

- b. ***Turbidity monitoring qualifications.*** Construction at the project site shall be monitored closely to assure that turbidity levels do not exceed the compliance standards established in this permit. This monitoring shall be conducted by an independent third party (not associated with the dredging contractor) 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. Documentation that the Public Easement has been executed and recorded to the satisfaction of the Department;
- d. Except for the first event, a Scope of Work for the turbidity monitoring to ensure that the right equipment is available to conduct the monitoring correctly at any location, and under any conditions; and
- e. Prior to subsequent nourishment events authorized under this permit, the results of the intermediate turbidity monitoring shall be evaluated and provided to the Department. If the results indicate that the project can be built using a smaller mixing zone, this adjustment shall be made through an administrative modification to the permit prior to commencement of construction.
- f. A detailed **Environmental Protection Plan** or equivalent, subject to review and approval by the Department and the Florida Fish and Wildlife Conservation Commission (FWC) providing pertinent project-specific details regarding natural resource protection, including but not limited to:
 - i. *Marine Turtle Protection:* Monitoring plan, including a list of the names and permit numbers for the Marine Turtle Permit Holders.
 - ii. *Shorebird Protection:* Monitoring plan, including a list of Bird Monitors with their contact information, summary of qualifications including bird identification skills, and avian survey experience, proposed locations of shorebird survey routes, and the locations of travel routes.
- g. **Proof of Publication.** Proof of Publication of the Intended Agency Action for Permit No. 0261499-011-JM. Proof of Publication shall be submitted to the Department within 21 days of publication.

**Joint Coastal Permit
North Boca Raton Beach Nourishment
Permit No. 0261499-011-JM
Page 8 of 35**

3. All reports or notices relating to this permit shall be sent to the JCP Compliance Officer, (email address: JCPCCompliance@dep.state.fl.us), unless otherwise specified in the specific conditions.
4. 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 the Permittee's contractors (including those responsible for turbidity monitoring), the engineer of record, ~~and~~ Department staff representatives, 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 Department, and the other agency representatives listed below:

DEP JCP Compliance Officer
email: JCPCCompliance@dep.state.fl.us

DEP Southeast District Office
email: Southeast.District@floridadep.gov
~~Submerged Lands & Environmental Resources~~
400 N. Congress Ave., Suite 200
West Palm Beach, FL 33401.
561-681-6600

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

FWC Regional Shorebirds Conservation Contact List:
<https://myfwc.com/conservation/you-serve/wildlife/shorebirds/contacts/>

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.

5. 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 hardbottom, seagrass (or other aquatic vegetation) beds or wetlands is prohibited unless

Joint Coastal Permit
North Boca Raton Beach Nourishment
Permit No. 0261499-011-JM
Page 9 of 35

within a work area or ingress/egress corridor specifically approved by this permit. Anchoring or spudding of vessels and barges within beds of aquatic vegetation or over hardbottom areas is also prohibited. Also, 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.

6. Sediment quality shall be assessed as outlined in the attached Sediment QA/QC Plan dated ~~September 2018~~ ~~April 5, 2012 (received on April 17, 2013)~~, except as otherwise modified below. 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 plans. The sediment testing result shall be submitted to the JCP Compliance Officer within 90 days following the completion of beach construction. The Sediment ~~QA/QC~~ QA/QCA 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 shall be taken to avoid further placement of noncompliant fill, and the sediment inspection results shall be reported to the JCP Compliance Officer.
 - b. The Permittee shall submit post-construction sediment testing results and an analysis report as outlined in the Sediment ~~QA/QC~~ QA/QCA plan to the JCP Compliance Officer within 90 days following beach construction. The sediment testing results shall 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 ~~QA/QC~~ QA/QCA plan shall accompany the complete set of laboratory testing results. A statement of how the placed fill material compares to the sediment analysis and volume calculations from the geotechnical investigation shall be included in the sediment testing results report.
 - c. A post-remediation report containing the site map, sediment analysis, and volume of noncompliant fill material removed and replaced shall be submitted to the JCP Compliance Officer within 7 days following completion of remediation activities.
 - d. The fill material placed on the beach shall have a moist Munsell color value of 5 or lighter.
 - e. Beach compatible fill must be sand that is similar to a native beach in the vicinity of the site that has not been affected by prior sand placement activity. The fill material must be similar in both coloration and grain size distribution to that native beach. Beach compatible fill is material that maintains the general character and functionality of the material occurring on the beach and in the adjacent dune and coastal system. Fill material shall comply with the Department's requirements

**Joint Coastal Permit
North Boca Raton Beach Nourishment
Permit No. 0261499-011-JM
Page 10 of 35**

pursuant to Rule 62B-41.005(15), F.A.C. A Quality Control Plan shall be implemented pursuant to Rule 62B-41.008(1)(k)4.b, F.A.C.

7. When discharging slurried sand onto the beach from a pipeline, the Permittee shall employ best management practices (BMPs) to reduce turbidity. At a minimum, these BMPs shall include the following:
 - a. Use of shore-parallel sand dike to promote settlement of suspended sediment on the beach before return water from the dredged discharge reenters the Atlantic Ocean; and
 - b. The pipeline discharge location, shall be placed approximately 5 to 10 feet away from the toe of the dune and 50 feet from the open water. In the event, the beach width is less than 50 feet, the discharge location shall be at the midpoint between the MHW and the toe of dune.

HARDBOTTOMS:

8. To protect hardbottom areas adjacent to the borrow areas and beach restoration site, the Permittee and their contractors shall adhere to the following procedures:
 - a. Before any construction equipment enters the project area, once every two weeks during construction, and immediately after the construction equipment has left the project area, a qualified marine biologist shall survey the hardbottom to assess physical damage (including burial or sedimentation) caused by the construction activities (from machinery, ancillary equipment, spills, etc.). Visual surveys of the equipment ingress/egress corridor will be performed by marine scientists once prior to construction, once following dredge mobilization, and once immediately after all construction equipment has been demobilized from the project area (three surveys total). The reef edge shall be visually assessed by divers to a distance of 150 meters (492 feet) north and 150 meters (492 feet) south of the equipment transit corridor. A record of these surveys shall be kept and submitted to the JCP Compliance Officer within 7 days of completing each survey. The person or persons performing these surveys shall have a good working knowledge of scleractinian coral, octocoral, and sponge taxonomy, and the qualifications of the person or persons shall be submitted to the JCP Compliance Officer for approval at least 30 days before the construction equipment enters the project area.
 - i. If any damage or excessive stress on marine organisms is found, all dredging activities shall cease immediately within 600 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.

- ii. 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.
- b. The contractor shall push his equipment into the project area or tow the equipment using floating (polypropylene or equivalent) lines when water depths are shallower than 200 feet to avoid potential cable drags.
- c. Dredging for borrow material is generally prohibited within 600 feet of hardbottom communities. However, this permit authorizes dredging between 400 and 600 feet of hardbottom with additional monitoring. The hardbottom located between 400 and 600 feet of the borrow areas shall be closely monitored simultaneously while dredging in this area to avoid potential impacts (see the Department-approved Biological Monitoring Plan and SC 34 below). The Permittee shall establish and maintain (during construction) a 122-meter (400 foot) buffer zone separating the authorized borrow area from the nearest hardbottom communities surrounding the borrow area. The contractor shall utilize Differential GPS-based positioning. The dredge's leverman shall have visual displays showing the borrow area delineations, permitted cut depths, locations of hardbottom resources and the position of dredge and cutterhead/dragarm. The dredge's Differential GPS position readings shall be verified by a Florida PLS/PSM to be accurate within 1 foot after mobilization of the dredge to the site by prior to the commencement of dredging. The Permittee shall inform the dredging contractor of this requirement and show the buffer zone on the contract drawings.
- d. 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 JCP Compliance Officer shall be notified within 24 hours.

Manatee Protection Conditions

9. During all construction authorized by this permit, and subsequent to authorization of incidental take by the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (FWS), in accordance with Florida Statute 161.041 (5), 379.2431 (1), 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 marine turtles, manatees and manatee speed zones, and the need to avoid collisions with (and injury to) these protected marine species. 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, 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 entanglement or entrapment. Barriers must not impede manatee or marine turtle movement.
 - d. All on-site project personnel are responsible for observing water-related activities for the presence of marine turtles and manatee(s). **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 Florida Fish and Wildlife Conservation Commission (FWC) Hotline at 1-888-404-3922, and to FWC at ImperiledSpecies@myFWC.com. Collision and/or injury should also be reported to the FWS in Jacksonville at 1-904-731-3336.
 - f. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the Permittee upon completion of the project. Temporary signs that have already been approved for this use by the FWC must be used. One sign which reads *Caution Boaters: 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 that is prominently visible to all personnel engaged in water-related activities. Signs already approved by the FWC can be viewed at MyFWC.com/manatee (example below). Questions concerning these signs can be sent to the email address listed above.



Hopper Dredging

10. In the event a hopper dredge is utilized for this project, the following requirements shall be met in addition to the Terms and Conditions of the applicable NMFS Regional Biological Opinion for Hopper Dredging:
 - a. Handling of captured sea turtles or sea turtle shall be conducted only by persons with prior experience and training in these activities and who is duly authorized to conduct such activities through a valid Marine Turtle Permit issued by the FWC, pursuant to Florida Administrative Code (FAC) 68E-1.
 - b. Standard operating procedure shall be that 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, to minimize impingement or entrainment of sea turtles within the water column. This precaution is especially important during the cleanup phase of dredging operations.
 - c. A state-of-the-art rigid deflector draghead must be used on all hopper dredges in all channels at all times of the year.
 - d. The Sea Turtle Stranding and Salvage Network (STSSN) Coordinator shall be notified at Allen.Foley@myfwc.com at the start-up and completion of hopper dredging operations. In the event of capturing or recovering sea turtles or sea turtle parts, the STSSN should be contacted at SeaTurtleStranding@myfwc.com

- e. Relocation trawling or non-capture trawling shall be implemented in accordance with the applicable NMFS Biological Opinion and Incidental Take authorization. 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.
- f. The Permittee or their contractor shall e-mail (MTP@MyFWC.com) weekly reports to the Imperiled Species Management section on Friday each week that trawling is conducted in Florida waters. These weekly reports shall include: the species and number of turtles captured in Florida waters, general health, and release information. A summary (FWC provided Excel spreadsheet) of all trawling activity, including non-capture trawling, and all turtles captured in Florida waters, including all measurements, the latitude and longitude (in decimal degrees) of captures and tow start-stop points, and times for the start-stop points of the tows, including those tows on which no turtles are captured, shall be submitted to MTP@myfwc.com by January 15 of the following year or at the end of the project.

Marine Turtle Nesting Beach Protection

11. All derelict concrete, metal, and coastal armoring material and other debris shall be removed from the beach prior to any material placement to the maximum extent practicable. If debris removal activities will take place during shorebird breeding or sea turtle nesting seasons, the work shall be conducted during daylight hours only and shall not commence until completion of daily seabird, shorebird or sea turtle surveys 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 unless otherwise authorized.
12. **Pre-Construction Meeting.** A meeting between representatives of the contractor, the FWS, the FWC, the permitted sea turtle surveyor and other species surveyors as appropriate, shall be held prior to commencement of work on projects. Advance notice of at least 10-business days shall be provided prior to conducting this meeting. The meeting will provide an opportunity for explanation and/or clarification of the protection measures as well as additional guidelines when construction occurs during nesting season, such as staging equipment and reporting within the work area, as well as follow up meetings during construction.
13. Beach nourishment shall be started after October 31 and be completed before May 1, except for the 2014 nourishment event, which shall be completed before May 15. Also, for the fall 2014 event only, pipe and equipment may be staged on the beach between October 17 and October 31.
14. Construction-related activities are authorized to occur on the nesting beach (seaward of existing coastal armoring structures or the dune crest) at the beginning and end of the sea turtle nesting season (March 1 through April 30, March 1 through May 14 in the year

**Joint Coastal Permit
North Boca Raton Beach Nourishment
Permit No. 0261499-011-JM
Page 15 of 35**

2014 only, and November 1 through November 30, or October 17 through November 30 in the year 2014 only) under the following conditions:

- a. A daily marine turtle nest survey of the nesting beach in the vicinity of the project (including areas of beach access) shall be conducted starting March 1 and continue through November 30 during the year of construction. In other years, daily surveys shall begin March 1 and continue through October 15. Surveys shall be conducted daily between sunrise and 9 a.m. and shall continue until the last marked nest has hatched to assess hatching success.
- b. For sand placement projects that occur during the period from March 1 through April 30 (May 14 in 2014 only) or November 1 through November 30, daily early morning surveys (before 9 a.m.) shall be conducted for sea turtle nests and eggs shall be relocated per the following requirements:
 - i. Only those nests on the nourished beach that may be affected by the construction activities 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 and that has been approved by FWC. 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 that are subject to artificial lighting. Nest relocations in association with construction activities shall cease when sand placement activities no longer threaten nests. During May 1, 2014, through May 14, 2014, the only sea turtle nests that shall be relocated are those that are deposited directly in the remaining fill template (R-205 to R-208), or are adjacent to the dredge discharge pipeline. If the sea turtle permit holder's ability to relocate nests is exceeded on a single day based on the abundance, all of the sea turtle nests not relocated shall be marked with a 25-foot radius buffer to minimize any disturbance. All construction activities shall cease and all equipment removed from the project area no later than midnight on May 14, 2014.
 - ii. Nests deposited within areas where construction activities have ceased or will not occur for 65 days, or nests laid in the nourished berm prior to tilling, shall be marked and left in place 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 as far landward as possible to assure that future location of the nest will be possible should the on-beach marker be lost. No activity shall occur within this area nor shall any activities occur that could result in impacts to the nest. Nest sites shall be inspected daily to assure nest markers remain in place and the nest has not been disturbed by the project activity.

- c. No construction activity may commence until completion of the marine turtle survey each day.
15. It is the responsibility of the Permittee to ensure that the project area and access sites are surveyed for marine turtle nesting activity. 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 F.A.C 68E-1. Please contact FWC's Marine Turtle Management Program in Tequesta at MTP@myfwc.com for information on the permit holder in the project area.
16. During the sea turtle 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. An exception to this may occur if there is permitted sea turtle surveyor present on-site to ensure no nesting and hatching sea turtles are present within the extended work area. If the 500 feet is not feasible for the project, the Permittee may submit a request for an alternate distance to FWC, and FWC will decide if that distance is acceptable during the preconstruction meeting. Once the beach has been cleared and the necessary nest relocations have been completed, the contractor will be allowed to proceed with the placement of fill during daylight hours until dusk, at which time the 500-foot length limitation shall apply.
17. For construction activities occurring during the period from March 1 through April 30 (or from March 1 through May 14 in 2014), daytime surveys shall be conducted for leatherback sea turtle nests beginning March 1. Nighttime surveys for leatherback sea turtles shall begin when the first leatherback crawl is recorded within the project or adjacent beach area through April 30 (through May 14 in 2014), 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 (since leatherbacks require at least 1.5 hours to complete nesting, this will ensure all nesting leatherbacks are encountered) and eggs shall be relocated per the preceding requirements.
18. Sand compaction shall be monitored in the area of sand placement immediately after completion of the project and prior to April 15th, for three (3) subsequent years. Compaction shall be monitored in accordance with a protocol agreed to by the FWS, FWC and the Permittee. The requirement for compaction monitoring can be eliminated if the decision is made to till regardless of post-construction compaction levels. Out-year compaction monitoring and remediation are not required if placed material no longer remains on the beach.

At a minimum, the protocol below shall be followed. If the average value for any depth exceeds 500 pounds per square inch (psi) for any two or more adjacent stations, then that area shall be tilled immediately prior to the following date listed above. If values exceeding 500 psi are distributed throughout the project area but in no case do those

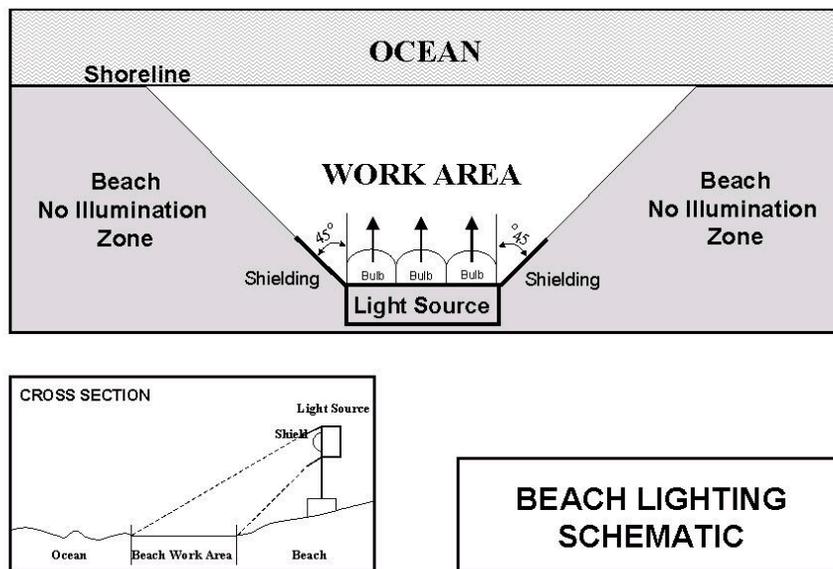
values exist at two adjacent stations at the same depth, then consultation with the FWC or FWS will be required to determine if tilling is required. If a few values exceeding 500 psi are present randomly within the project area, tilling will not be required.

- 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 at each depth (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. No compaction sampling shall occur within 300 feet of any shorebird nest.
 - d. Any vehicles operated on the beach in association with compaction surveys shall operate in accordance with the FWC's Best Management Practices for Operating Vehicles on the Beach (<http://myfwc.com/conservation/you- conserve/wildlife/beach-driving/>).
19. If tilling is required as specified 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 prior to tilling shall be required per the Shorebird Conditions included within this document. It is the responsibility of the contractors to avoid tilling, scarp removal, or dune vegetation planting in areas where nesting birds are present. Each pass of the tilling equipment shall be overlapped to allow thorough and even tilling. If the project is completed during the marine turtle nesting season, tilling shall not be performed in areas where nests have been left in place or relocated. If compaction measurements are taken, a report on the results of the compaction monitoring shall be submitted electronically to FWC at marineturtle@myfwc.com prior to any tilling actions being taken.
- a. No tilling shall occur within 300 feet of any shorebird nest.
 - b. If flightless shorebird young are observed 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.

- 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 avoid all vegetated areas 3 square feet or greater with a 3-foot buffer around the vegetated areas. The slope between the mean high water line and the mean low water line shall be maintained in such a manner as to approximate natural slopes.
 - e. Any vehicles operated on the beach in association with tilling shall operate in accordance with the FWC's Best Management Practices for Operating Vehicles on the Beach (<http://myfwc.com/conservation/you- conserve/wildlife/beach-driving/>).
 - f. Weekly visual surveys for escarpments along the project area shall be made immediately after completion of the sand placement project during sea turtle nesting season, and during March 15 to April 15 for three (3) subsequent years if sand from the project still remains on the beach. Weekly reports shall be submitted by Friday each week to marineturtle@myfwc.com.
20. Escarpments that interfere with sea turtle nesting or that exceed 18 inches in height for a distance of at least 100 feet shall be leveled and the beach profile shall be reconfigured to minimize scarp formation by April 15. Any escarpment removal shall be reported to FWC by location. If the project is completed during the sea turtle nesting and hatching season, escarpments may be required to be leveled immediately, while protecting nests that have been relocated or left in place. If, during the nesting and hatching season, there is any subsequent reformation of escarpments that interfere with sea turtle nesting or that exceed 18 inches in height for a distance of 100 feet, the Permittee shall immediately contact FWC to determine the appropriate action to be taken. If it is determined that escarpment leveling is required during the nesting or hatching season, the FWS or FWC will provide a brief written authorization that describes methods to be used to reduce the likelihood of impacting existing nests. An annual summary of escarpment surveys and actions taken shall be submitted electronically to marineturtle@myfwc.com along with the annual summary as described below. If escarpment removal occurs during shorebird breeding season (See 3B), 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).
- a. No heavy equipment shall operate within 300 feet of any shorebird nest.
 - b. If flightless shorebird young are observed 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.

- c. Any vehicles operated on the beach in association with escarpment surveys or removal shall operate in accordance with the FWC's Best Management Practices for Operating Vehicles on the Beach (<http://myfwc.com/conservation/you-conserve/wildlife/beach-driving/>).
 - d. All Terms and Conditions in the FWS Programmatic Piping Plover Biological Opinion, dated May 22, 2013, shall be met as required in that document.
21. Staging areas for construction equipment shall be located off the beach from March 1 through April 30 and November 1 through November 30, if off-beach staging areas are available. Nighttime storage of construction equipment not in use shall be off the beach to minimize disturbance to sea 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 off the beach to the maximum extent possible. If the pipes shall be on the beach, they shall be placed in a manner that will minimize the impact to nesting habitat and shall not compromise the integrity of the dune systems.

Figure 1.



22. Direct lighting of the beach and nearshore waters shall be limited to the immediate construction area from March 1 through April 30 and November 1 through November 30, and shall comply with safety requirements. Lighting on offshore or onshore equipment shall be minimized through reduction, shielding, lowering, and appropriate placement to avoid excessive illumination of the water's surface and nesting beach while meeting all Coast Guard, EM 385-1-1, and OSHA requirements. Light intensity of lighting

equipment shall be reduced to the minimum standard required by OSHA for General Construction areas, in order not to misdirect sea turtles. Shields shall be affixed to the light housing and be large enough to block light from all lamps from being transmitted outside the construction area (see **Figure 1**).

23. In the event a sea turtle nest is excavated during construction activities, 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.
24. Upon locating a dead or injured sea turtle adult, hatchling, or egg that may have been harmed or destroyed as a direct or indirect result of the project, the Corps, the Permittee shall be responsible for notifying the Sea Turtle Stranding and Salvage Network (STSSN) at SeaTurtleStranding@myfwc.com. Care shall be taken in handling injured sea 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.

Nesting Seabird and Shorebird Protection Conditions

25. Nesting seabird and shorebird (i.e. shorebird) surveys should be conducted by trained, dedicated individuals (Bird Monitor) with proven shorebird identification skills and avian survey experience. A list of candidate Bird Monitors with their contact information, summary of qualifications, including bird identification skills, and avian survey experience, shall be provided to FWC. This information shall be submitted to the FWC regional biologist (**Figure 2**) prior to any construction or hiring for shorebird surveys for revision and consultation. Bird Monitors shall use the following survey protocols:
 - a. Bird Monitors shall review and become familiar with the general information, employ the data collection protocol, and implement data entry procedures outlined on the FWC’s Florida Shorebird Database (FSD) website (www.FLShorebirdDatabase.org). An outline of data to be collected, including downloadable field data sheets, is available on the website.
 - b. Breeding season varies by species. Most species have completed the breeding cycle by September 1, but flightless young may be present through September. The following dates are based on the best available information regarding ranges and habitat use by species:

Palm Beach County spoil islands & estuaries	15 March -1 September
Palm Beach County coastal beaches	1 April-1 September

Breeding season surveys shall begin on the first day of the breeding season, or 10 days prior to project commencement (including surveying activities and other pre-

- construction presence on the beach), whichever is later. Surveys shall be conducted through August 31st, or until all breeding activity has concluded, whichever is later.
- c. Breeding season surveys shall be conducted in all potential beach-nesting bird habitats within the project boundaries that may be impacted by construction or pre-construction activities. Portions of the project, in which there is no potential for project-related activity during the nesting season, may be excluded. One or more shorebird survey routes shall be established in the FSD website to cover these areas.
 - d. During the pre-construction and construction phases of the project, surveys for detecting breeding activity and the presence of flightless chicks shall be completed on a daily basis prior to movement of equipment, operation of vehicles, or other activities that could potentially disrupt breeding behavior or cause harm to the birds or their eggs or young.
 - e. Surveys shall be conducted by walking the length of the project area and visually surveying for the presence of shorebirds exhibiting breeding behavior, shorebird/seabird chicks, or shorebird/seabird juveniles as outlined in the FSD *Breeding Bird Protocol for Shorebirds and Seabirds*. Use of binoculars is required.
 - f. Once breeding is confirmed by the presence of a scrape, eggs or young, the Bird Monitor shall notify the FWC Regional Species Conservation Biologist within 24 hours. All breeding activity shall be reported to the FSD website within one week of data collection.
 - g. All personnel associated with the project shall be instructed about the potential presence of nesting shorebirds and the need to avoid take of (including disturbance to) these protected species.
 - h. 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- conserve/wildlife/beach-driving/>). Specifically, the vehicle shall be operated at a speed <6 mph and run at or below the high-tide line. The Bird Monitor shall stop at no greater than 200 meter intervals to visually inspect for breeding activity.

Seabird and Shorebird Buffer Zones and Travel Corridors.

- 26. Within the project area, the Permittee shall establish a disturbance-free buffer zone around any location where shorebirds have been engaged in breeding behavior, including territory defense. A 300-foot-wide buffer is considered adequate based on published studies. However, a smaller, site-specific buffer may be implemented upon approval by the FWC Regional Species Conservation Biologist as needed. All sources of human

disturbance (including pedestrians, pets and vehicles) shall be prohibited in the buffer zone.

- a. The Bird Monitor 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 do appear to be agitated or disturbed by these activities, then the width of the buffer zone shall be increased immediately to a sufficient size to protect breeding birds.
- b. Reasonable and traditional pedestrian access should not be blocked 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 Permittee shall work with the FWC Regional Species Biologist to determine if pedestrian access can be accommodated without compromising nesting success.
- c. Designated buffer zones shall be marked with posts, twine and signs stating “Do Not Enter, Important Nesting Area” or similar language around the perimeter that includes the name and a phone number of the entity responsible for posting. Posts should not exceed 3 feet in height once installed. Symbolic fencing (twine, string or rope) should be placed between all posts at least 2.5 feet above the ground and rendered clearly visible to pedestrians. If pedestrian pathways are approved by the FWC Regional Species Conservation Biologist within the 300-foot buffer zone, these should be clearly marked. The 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. No construction activities, pedestrians, movement of vehicles or stockpiling of equipment shall be allowed within the buffer area.
- e. Travel corridors shall be designated and marked outside the buffer areas so as not to cause disturbance to breeding birds. Heavy equipment, other vehicles or pedestrians may transit past breeding areas in these corridors. However, other activities such as stopping or turning shall be prohibited within the designated travel corridors adjacent to the breeding site. When flightless chicks are present within or adjacent to travel corridors, movement of vehicles shall be accompanied by the Bird Monitor who will ensure no chicks are in the path of the moving vehicle and no tracks capable of trapping flightless chicks result.
- e. To discourage nesting within the travel corridor, it is recommended that the Permittee should maintain some activity within these corridors on a daily basis, without

disturbing any nesting shorebirds documented on site or interfering with sea turtle nesting, especially when those corridors are established prior to commencement of construction.

27. **Notification.** If shorebird breeding occurs within the project area, a bulletin board shall be placed and maintained in the construction staging area with the location map of the construction site showing the bird breeding areas and a warning, clearly visible, stating that “NESTING BIRDS ARE PROTECTED BY LAW INCLUDING THE FLORIDA ENDANGERED AND THREATENED SPECIES ACT AND THE STATE and FEDERAL MIGRATORY BIRD ACTS”.
28. **Post-construction Shorebird Protection:** If beach cleaning will occur on the nourished beach, a minimum of 30% of the biotic material within the wrack line will be left on the beach post-cleaning at the strand line in a natural configuration to ensure that the nourished beach re-establishes its function as foraging habitat for shorebirds. This shall occur for as long as the placed sand remains on the beach.

Post-construction Monitoring and Reporting Marine Turtle Protection:

29. Reports on all marine turtle nesting activity shall be provided for the initial marine turtle nesting (*May 1 through September 15*) and hatching (*through October 31*) season and for up to three additional nesting seasons as follows:
 - a. For the initial nesting season and the following year, the number and type of emergences (nests or false crawls) shall be reported per species (see **Table 1**). An additional year of nesting surveys may be required if nesting success for any species on the nourished beach is less than 40%.
 - b. For the initial nesting season, reproductive success shall be reported per species in accordance with the **Table 1**. Reproductive success shall be reported for all sea turtle nests if possible. Otherwise a statistically significant number of nests for each species shall be reported.
 - c. In the event that the reproductive success documented by species meets or exceeds required criteria for each species, 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, applicable project permit numbers and dates of construction.

Data shall be reported for the nourished areas in accordance with the **Table 1** and shall include number of nests lost to erosion or washed out. Summaries of nesting activity shall be submitted in electronic format (Excel spreadsheets) to the FWC Imperiled Species Management section at MTP@myfwc.com. All summaries shall be submitted by January 15 of the following year. The FWC Excel spreadsheet is available upon request from MTP@myfwc.com.

30. Two lighting surveys shall be conducted of all artificial lighting visible from the nourished berm. The first survey shall be conducted prior to construction with a second survey conducted immediately post-construction. The survey shall be conducted to include a landward view from the seaward most extent of the new beach profile. The survey should follow standard techniques for such a survey and include number and type of visible lights, location of lights and photo documentation. For each light source visible, it must be documented that the property owner(s) have been notified of the problem light with recommendations for correcting the light. Recommendations shall be in accordance with the Florida Model Lighting Ordinance for Marine Turtle Protection (Chapter 62B-55, F.A.C.) and local lighting restrictions. In addition to local code enforcement, actions shall be taken by the Permittee to ensure that no lights or light sources are visible from the newly elevated beach within their respective areas. A report summarizing all lights visible shall be submitted to FWC Imperiled Species Management Section at marineturtle@myfwc.com by the 1st of the month following the survey. A summary report documenting what corrective actions have been taken provided and all compliance and enforcement actions shall also be submitted by December 15 of that year. After the annual report is completed, a meeting shall be set up with the Permittee, county or municipality, FWC and the FWS to discuss the survey report, as well as any documented sea turtle disorientations in or adjacent to the project area.

Table 1. Marine Turtle Monitoring:

Metric	Duration	Variable	Criterion
Nesting Success	Year of construction, one year to two or three 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 emergences by day by species	40% or greater
Hatching Success	Year of construction and one to three years post construction if placed sand remains on beach and variable does not meet criterion based on previous year	Number of hatchlings by species to completely escape egg	Average of 60% or greater (data must include washed out nests)

**Joint Coastal Permit
 North Boca Raton Beach Nourishment
 Permit No. 0261499-011-JM
 Page 25 of 35**

Emergence Success	Year of construction and one to three years 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	Average must not be significantly different than the average hatching success
Disorientation	Year of construction and one to three years post construction if placed sand remains on beach	Number of nests and individuals that misorient or disorient	
Lighting Surveys	Two surveys the year following construction , one survey between May 1 and May 15 and second survey between July 15 and August 1	Number, location and photographs of lights visible from nourished berm, corrective actions and notifications made	100% reduction in lights visible from nourished berm within one to two month period
Compaction	Not required if the beach is tilled prior to nesting season each year placed sand remains on beach	Shear resistance	Less than 500 psi
Escarpment Surveys	Weekly during nesting season for up to three years each year 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

**Joint Coastal Permit
North Boca Raton Beach Nourishment
Permit No. 0261499-011-JM
Page 26 of 35**

Northwest Region

Dr. John Himes
FL Fish and Wildlife
Conservation Commission
3911 Highway 2321
Panama City, FL 32409-1658
(850) 265-3676

North Central Region

Dr. Terry Doonan
FL Fish and Wildlife
Conservation Commission
P.O. Box 177
Olstee, FL 32072
(386) 758-0525

Northeast Region

Mr. Alex Kropp
FL Fish and Wildlife
Conservation Commission
1239 S.W. 10th Street
Ocala, FL 34474-2797
(352) 732-1225

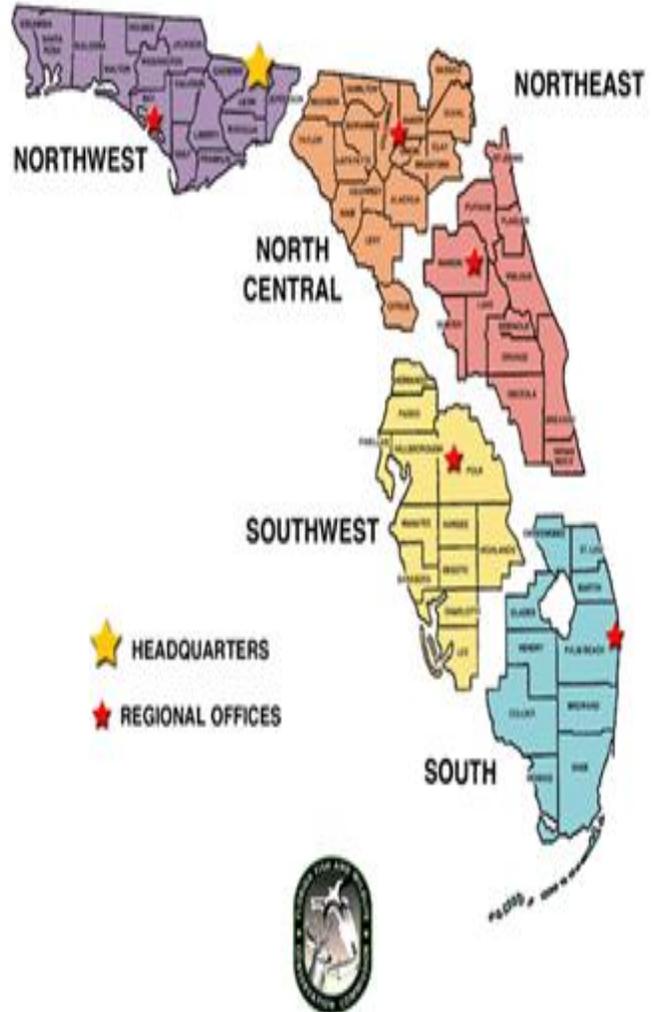
Southwest Region

Ms. Nancy Douglass
FL Fish and Wildlife
Conservation Commission
3900 Drane Field Road
Lakeland, FL 33811-1299
(863) 648-3205

South Region

Mr. Ricardo Zambrano
FL Fish and Wildlife
Conservation Commission
8535 Northlake Boulevard
West Palm Beach, FL 33412
(561) 625-5122

**FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
HEADQUARTERS AND REGIONAL OFFICES**



MONITORING REQUIRED:

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

Units: Nephelometric Turbidity Units (NTUs).

Frequency: Three (3) times per day, at least 4 hours apart, during all dredging and filling operations. Sampling shall be conducted **while the highest project-related turbidity levels are crossing the edge of the mixing zone**. Since turbidity levels can be related to pumping rates, the dredge pumping rates shall be recorded, and provided to the Department upon request. The compliance samples and the corresponding background samples shall be collected at approximately the same time, i.e., one shall immediately follow the other.

Location: Background: At surface, 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 or the influence of an outgoing inlet plume.

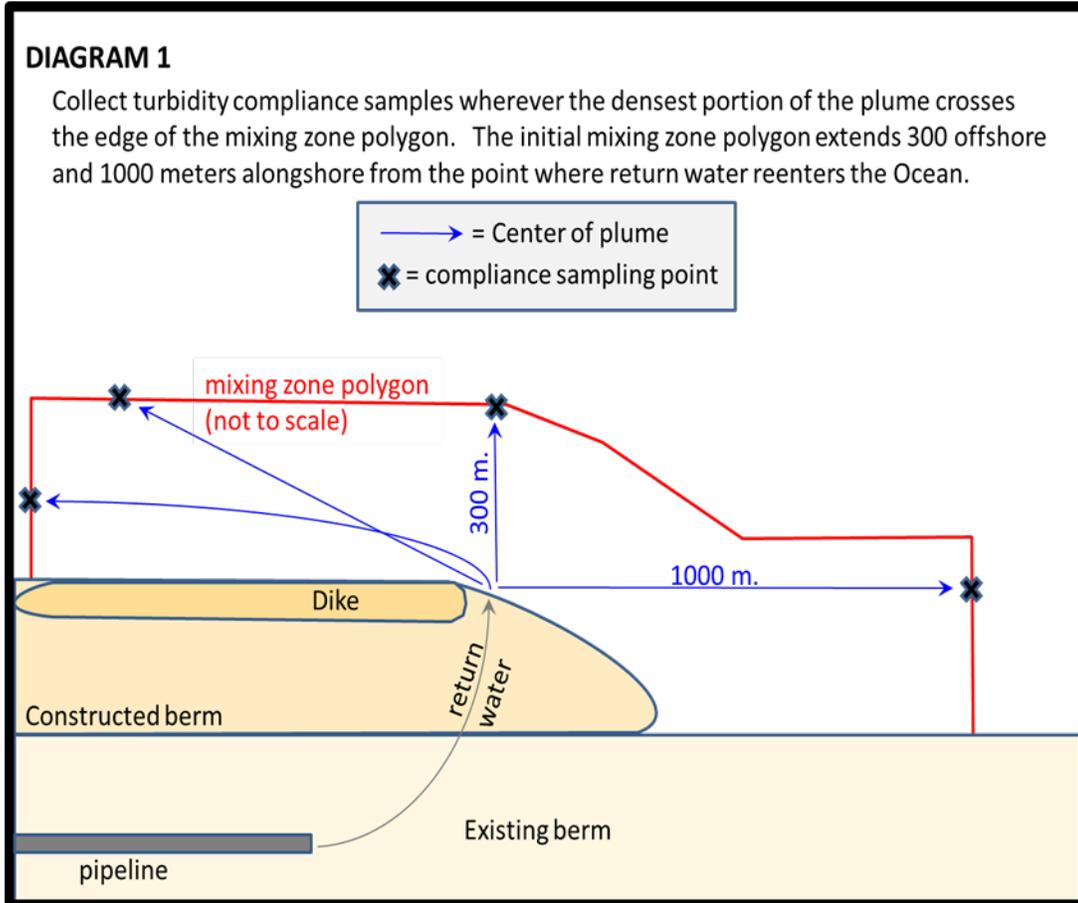
Borrow Site: Samples shall be collected at least 300 meters up-current from the source of turbidity at the dredge site.

Beach Site: Samples shall be collected at least 300 meters up-current from any portion of the beach that has been, or is being, filled during the current construction event, at the same distances offshore as the associated compliance samples.

Compliance: At surface, mid-depth, and (for sites with depths greater than 25 feet) 2 meters above the bottom.

Borrow Site: Samples shall be taken 150 meters downcurrent from the dredge site or the leading edge of documented hardbottom, whichever is closest and within the densest portion of any visible turbidity plume. If no plume is visible, follow the likely direction of flow. When the dredge is located within 150 meters of hardbottom, a sample shall be taken from just above the edge of the hardbottom.

Beach Site: Samples shall be collected where the densest portion of the turbidity plume crosses the edge of the mixing zone polygon, which measures up to 300 meters offshore and up to 1,000 meters alongshore from the point where the return water from the dredged discharge reenters the Atlantic Ocean. *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.*



Intermediate Monitoring (required when using a mixing zone that exceeds 150 meters in size): Samples shall be collected at surface, mid-depth, and (for sites with depths greater than 25 feet) 2 meters above bottom, at points approximately 150, 500 and 750 meters downcurrent from the point where the return water from the dredged discharge reenters the Atlantic Ocean (if those points are located inside the mixing zone), within the densest portion of any visible turbidity plume generated by this project. These measurements will be used to calibrate the size of the mixing zone for future events.

Calibration:

The turbidity meter should be calibrated prior to the project and once every 3 months during the project using primary standards. During construction, the turbidity meter shall be calibrated daily with secondary standards. If verification indicates significant deviation from the standard (true) value (greater than $\pm 10\%$ using Standard Value = 0.1-0.10 NTU), thoroughly clean and recalibrate the instrument using a primary standard. If problems persist the manufacturer should be contacted. The Permittee is responsible for ensuring that the calibration standards are not expired.

**Joint Coastal Permit
North Boca Raton Beach Nourishment
Permit No. 0261499-011-JM
Page 29 of 35**

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 attached to the permit and shall be implemented without the need for a formal 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 Department's ~~Bureau of Beaches and Coastal Systems (BBCS) in Tallahassee~~ via email at [JCP Compliance@dep.state.fl.us](mailto:JCPCompliance@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 background turbidity levels are restored or until otherwise directed by the Department. 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".

- a. When reporting a turbidity exceedance, the following information shall also be included:
 - i. the Project Name;
 - ii. the Permit Number;
 - iii. location and level (NTUs above background) of the turbidity exceedance;
 - iv. the time and date that the exceedance occurred; and

- v. the time and date that construction ceased.
 - b. Prior to re-commencing the construction, a report shall be emailed to the JCP Compliance Officer with the same information that was included in the “Exceedance Report”, plus the following information:
 - i. turbidity monitoring data collected during the shutdown documenting the decline in turbidity levels and achievement of acceptable levels;
 - ii. corrective measures that were taken; and
 - iii. 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 source and sample. When possible, coordinates should be provided in decimal degrees with a 5 decimal level of precision (i.e., 0.000001). Please also indicate the datum;
 - 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 be 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.

33. **Physical Monitoring:**

The physical monitoring and associated reporting shall be conducted in accordance with the approved physical monitoring plan dated June 2013 and the conditions of this permit.

One electronic copy of the monitoring report and one electronic copy of the survey data shall be submitted to the JCP Compliance Officer. When submitting any monitoring information to the Department, 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. 0261499-004-JM for the monitoring period [XX].**

34. **Biological Monitoring**

All biological monitoring shall be performed in accordance with the Biological Monitoring Plan, dated November 20, 2015 and approved on December 15, 2015, except for section 3.6 that requires monitoring at the Red Reef Park Mitigation Modules. The Department has determined that monitoring at the Red Reef Mitigation Modules is no longer required under this permit.

a. Reporting Requirements

During construction, a weekly observation report shall be submitted to the JCP Compliance Officer. Notifications of commencement and completion, as well as weekly post-construction survey updates shall also be submitted. A biological monitoring report shall be submitted within 90 days following completion of each post-construction biological monitoring survey.

b. Mitigation

If the need for mitigation is triggered (see b and d above), the Permittee shall propose a mitigation plan that meets the Uniform Mitigation Assessment Method (UMAM) in Rule 62-345, F.A.C., within 6 months. Following approval of the mitigation plan by the Department, the Permittee shall implement the plan prior to commencement of the next nourishment event at this site.

~~c. Red Rock Reef Monitoring~~

~~Any module that remains completely buried by sand for three subsequent months shall be mitigated for prior to any nourishment activities under the next permit. When evaluating impacts to habitat functions from persistent sand cover, the 2009 pre-construction baseline condition and frequency of exposure in aerial photography and in-situ surveys shall be considered.~~

35. Should the Boca Raton Inlet Ebb Shoal be used as a supplemental sand source, the Permittee shall adhere to specific conditions 7, 8, and 2 (under monitoring required, Bathymetric Monitoring) as each may be modified from time to time, of Permit No. 0182699-001-JC, South Boca Raton Beach Nourishment Project.
36. Should the Boca Raton Inlet Ebb Shoal be used as a supplemental sand source, the Permittee shall adhere to the Sediment QA/QC Plan dated December 2016, attached to this modification.
37. Should the Boca Raton Inlet Ebb Shoal be used as a supplemental sand source, the Permittee shall demonstrate it remains current with strategies detailed in the Department adopted Inlet Management Plan for Boca Raton Inlet and the updated Strategic Beach Management Plan. Demonstration shall be in accordance with the post construction monitoring and reporting requirements following dredging of the Boca Raton Inlet Ebb Shoal of Permit No. 0182699-001-JC, South Boca Raton Beach Nourishment Project, as it may be modified from.

The Approved Permit Drawings shall be revised as follows:

“Permit Sketches - Borrow Areas 4-6” (10 plates, approved November 2018) shall be added to the set of approved permit drawings.

The Approved Sediment QA/QC plan shall be revised as follows:

The Sediment QA/QC Plan (approved December 2016) shall be replaced by the Sediment QA/QC Plan (approved September 2018)

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 Rules 28-106.201 and 28-106.301, 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, 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.

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, or via electronic correspondence at Agency_Clerk@dep.state.fl.us. 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 and persons entitled to written notice under Section 120.60(3), F.S., 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. 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

**Joint Coastal Permit
North Boca Raton Beach Nourishment
Permit No. 0261499-011-JM
Page 34 of 35**

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, or via electronic correspondence at Agency_Clerk@dep.state.fl.us, before the 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.

Judicial Review

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 Florida Rules of Appellate Procedure 9.110 and 9.190 with the Clerk of the Department in the Office of General Counsel (Station #35, 3900 Commonwealth Boulevard, 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 must be filed within 30 days from the date this action is filed with the Clerk of the Department.

EXECUTION AND CLERKING:

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION



Gregory W. Garis
Program Administrator
Beaches, Inlets and Ports Program
Division of Water Resource Management

**Joint Coastal Permit
North Boca Raton Beach Nourishment
Permit No. 0261499-011-JM
Page 35 of 35**

Attachments:

1. Approved Permit Sketches (34 pages, August 2013)
2. Permit Sketches – Ebb Shoal Borrow Area (2 pages, approved December 2016)
3. Permit Sketches – Borrow Areas 4-6 (10 pages, approved November 2018)
4. Sediment QA/QC Plan (approved September 2018)
5. Biological Monitoring Plan (approved January 2019)
6. Physical Monitoring Plan (approved August 2013)

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this permit and all attachments 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.



Clerk

January 14, 2019
Date