



Department of Environmental Protection

Jeb Bush
Governor

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Colleen M. Castille
Secretary

CONSOLIDATED JOINT COASTAL PERMIT AND INTENT TO GRANT SOVEREIGN SUBMERGED LANDS AUTHORIZATION

PERMITTEE/AUTHORIZED ENTITY: Permit/Authorization No.: 0163435-005-JC
Broward County Date of Issue: June 4, 2004
218 S.W. 1st Avenue Expiration Date of Construction Phase:
Ft.Lauderdale, FL 33301 June 4, 2009
County: Broward
Project: Broward County Beach Nourishment
Project (Segment II)

This permit is issued under the authority of Chapter 161 and Part IV of Chapter 373, Florida Statutes (F.S.), and Title 62 and 40, Florida Administrative Code (F.A.C.). Pursuant to Operating Agreements executed between the 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 involves: 1) nourishment of the beach at Pompano Beach from R-36 to R-43; 2) nourishment of the beach at Lauderdale-by-the-Sea and restoration of the beach at northern Fort Lauderdale from 300 feet south of R-51 to R-72; 3) construction of 3.0 acres of artificial reef as mitigation for impacts to 2.5 acres of nearshore hardbottom; 4) transplantation of scleractinian corals from the impacted areas within Segment II to the mitigation reef located between R-45 and R-46 in Lauderdale-by-the-Sea. The total volume of fill is approximately 935,000 cubic yards of material, which will be placed along 4.9 miles of the Broward County Segment II coastline. Beach compatible material will be obtained from three discrete borrow areas (I, II, and III).

ACTIVITY LOCATION:

The beach activities are located in Pompano Beach from S.E. 6th Street to 1620 S. Ocean Blvd. (R-36 to R-43) and in Lauderdale-by-the-Sea and northern Fort Lauderdale from 300 feet south of Commercial Blvd (R-51) to Auramar Street (R-72). Borrow Areas I, II and III are situated north of Hillsboro Inlet. The project is located within Broward County, in the Atlantic Ocean, Class III Waters.

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.

This activity also requires a proprietary authorization, as the activity is located on sovereign submerged lands owned by the Board of Trustees of the Internal Improvement Trust Fund, 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 Department has 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. In addition to the above, this proprietary authorization has been reviewed in accordance with Chapter 253, F.S., Chapter 18-21, 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 activity described above, and has determined that the beach fill activity qualifies for a consent to use sovereign submerged lands, as long as the work performed is located within the boundaries as described herein and is consistent with the terms and conditions herein. Therefore, consent is hereby granted, pursuant to Chapter 253.77, F.S., to perform the activity on the specified sovereign submerged lands.

As staff to the Board of Trustees, the Department has reviewed the activity described above, and has determined that the borrow area requires a public easement for the use of those lands, pursuant to Chapter 253.77, F.S. On May 13, 2003 the Board of Trustees granted authority for the Department to proceed with issuance of a public easement for the subject activity and use. The Department intends to issue the public easement, subject to the conditions in the permit.

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

A copy of this authorization has been sent to the U. S. Army Corps of Engineers (USACOE) for review. The USACOE may require a separate permit. Failure to obtain this authorization prior to construction could subject you to enforcement action by that agency. You are hereby advised that authorizations also may be required by other federal, state, and local entities. This authorization does not relieve you from the requirements to obtain all other required permits and authorizations.

The above named permittee is hereby authorized to construct the work shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department and made a part hereof. **This permit and authorization to use sovereign submerged lands is subject to the limits, conditions, and locations of work shown in the attached drawings, and is also subject to the General Conditions and Specific Conditions, which are a binding part of this permit and authorization.** You are advised to read and understand these drawings and conditions prior to commencing the authorized activities, and to ensure the work is conducted in conformance with all the terms, conditions, and drawings. If you are utilizing a contractor, the contractor also should read and understand these drawings and conditions prior to commencing the authorized activities.

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which 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 submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve

compliance with the conditions of this permit, are required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor any substances or parameters at any location reasonable necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- a. A description of and cause of noncompliance; and
- b. 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. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules. A reasonable time for compliance

with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard.

11. This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity

13. This permit also constitutes Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500).

4. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

1. the date, exact place, and time of sampling or measurements;
2. the person responsible for performing the sampling or measurements;
3. the dates analyses were performed;
4. the person responsible for performing the analyses;
5. the analytical techniques or methods used; and
6. the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS:

1. The permittee is hereby advised that Florida law states: "No person shall commence any excavation, construction, or other activity involving the use of sovereign or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund or the Department of Environmental Protection under Chapter 253, until such person has received from the Board of Trustees of the Internal Improvement Trust Fund the required lease, license, easement, or other form of consent authorizing the proposed use." Pursuant to Florida Administrative Code Rule 18-14.002(1), if such work is done without consent, or if a person otherwise damages state land or products of state land, the Board of Trustees may levy administrative fines of up to \$10,000 per offense.

2. The terms, conditions, and provisions of the required Public Easement (Modified Instrument No. 30628, BOT File No. 060226866) for the borrow areas shall be met. Construction of this activity shall not commence on sovereign submerged lands, title to which is held by the Board of Trustees of the Internal Improvement Trust Fund, until all Public Easement documents have been executed to the satisfaction of the Department.

3. If historical or archaeological artifacts such as, but not limited to, Indian canoes, arrow heads, pottery or physical remains, are discovered at any time within the project site, the permittee shall immediately stop all activities which disturb the soil and notify the Department's District Office and the Bureau of Historic Preservation, Division of Historical Resources, R. A. Gray Building, 500 South Bronough Street, Tallahassee, Florida 32399-0250.

4. For any portions of the beach project where an Erosion Control Line does not already exist, prior to construction, the Board of Trustees must establish the line of mean high water for that area to establish the boundary line between sovereignty lands of the state and the upland properties, pursuant to Chapter 161.141, F.S. No work shall commence until the Erosion Control Line has been executed to the satisfaction of the Department.

5. The beach fill area to be constructed seaward of the established Erosion Control Line shall remain sovereign lands and shall be accessible to the general public. Additionally, the resulting additions to upland property are also subject to a public easement for traditional uses of the sandy beach consistent with uses that would have been allowed prior to the need for the restoration project in accordance with Chapter 161.141, Florida Statutes.

6. At least 48 hours prior to commencement of work authorized by this permit, the permittee shall provide written notification of the date of the commencement and proposed schedule of construction. All documents relating to the permit shall be sent to the DEP Southeast District Office, (PO Box 15425, West Palm Beach, Florida 33416-5425, phone 561-681-6600) and the DEP Bureau of Beaches and Wetland Resources, 3900 Commonwealth Boulevard, Mail Station 300, Tallahassee, Florida 32399-3000, phone no. (850) 487-4471.

7. At least 14 days prior to the planned commencement date of construction, the permittee shall schedule a pre-construction conference to review the specific conditions of this permit with the contractors, work crews, the Department's staff representatives, and the marine turtle permit holder. The permittee shall provide a minimum of 7 days advance written notification to the following offices advising of the date, time, and location of the pre-construction conference:

DEP Bureau of Beaches and Coastal Systems
Compliance Officer
Mail Station 300
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000
fax: (850) 488-5257

FWC Bureau of Protected Species Management
Office of Environmental Services
620 South Meridian Street
Tallahassee, Florida 32399-1600
fax: (850) 921-4369

DEP Southeast District Office
Submerged Lands and Environmental Resources Program
400 North Congress Avenue
West Palm Beach, Florida 33401
(561) 681-6600 / sc 226-6600, scfax 226-6780

8. The Permittee shall develop a Sediment Quality Control / Quality Assurance Plan, as required by Rule 62B-41.008(1)(k)4.b., F.A.C. Once approved by the Department, compliance with the Plan shall be a specific condition of this permit and must be incorporated in the relevant Terms and Conditions of construction contracts. The Plan shall include a project-specific sediment quality specification for grain size distribution, color, and carbonate composition to ensure that the sediment from the borrow sites will meet the standard in Rule 62B-41.007(2)(j), F.A.C. The Plan shall provide quality control procedures for excavating sediment from within the authorized horizontal and vertical limits of the permitted borrow sites; for monitoring and reporting the quality of sediment as it is placed on the beach; and, for altering construction operations if the sediment does not comply with the project specific sediment quality specifications or stopping the dredging operation if the specifications cannot be attained. Further, the Plan shall provide procedures for testing the quality of the sediment after it is placed and methods for remediation of any areas of fill material that do not comply with the sediment quality specifications.

9. No work shall be conducted under this permit until the permittee has received a written Notice to Proceed from the Department. At least 60 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. A detailed ***Mitigation Plan*** that addresses the timing of artificial hardbottom construction in relation to the beach fill construction, acreage of proposed artificial hardbottom (as required in Specific Condition No. 11), proposed construction methods, the size and type of hard bottom substrate, depth of sand (above underlying rock), and other pertinent updates to the draft mitigation plan;
- b. A ***Sediment Quality Control / Quality Assurance Plan***, as required by Rule 62B-41.008(1)(k)4.b., F.A.C.;
- c. A detailed ***Physical Monitoring Plan***, as described in Specific Condition No. 14 (Physical Monitoring section), indicating the project's predicted design life;
- d. A detailed ***Biological Monitoring Plan***, as described in Specific Condition No. 15 (Biological Monitoring section);
- e. Two hard copies and an electronic copy of detailed ***final construction plans and specifications*** for all authorized activities, including a vessel operations plan. 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 beach construction methods to be utilized and drawings and surveys which 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. The Department may request additional information that may be necessary to understand and evaluate the proposal;
- f. ***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. Accordingly, 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;
- g. ***Biological monitoring qualifications.*** The names and qualifications of those individuals performing the biological monitoring shall be submitted for Department approval. All biological monitoring required by this permit shall be conducted by individuals having a good working knowledge of marine fish, marine turtles, algae, coral and sponge taxonomy.

h. A *Contingency Plan* to remediate any adverse impacts to the shoreline resulting from the dredging of Borrow Site #1. The approved Contingency Plan can be revised at any later time by written request of the permittee and with the written approval of the Department. As guidance for obtaining Departmental approval, the Plan should acknowledge that there is a potential for shoreline erosion occurring within adjacent areas of Segment I of the Broward County Beach Erosion Control Project as a result of dredging in Borrow Site #1. The Plan should confirm that these areas will be specifically monitored, analyzed, and reported on as part of an approved Monitoring Plan. The Contingency Plan should provide that any erosional problems that develop within contiguous shoreline areas of Segment I will be specifically addressed and appropriate remedial solutions developed and implemented. Remedial solutions to be considered should include the placement of beach fill material, as applicable. Once approved by the Department, the permittee shall obtain all necessary permits and authorizations to conduct the remedial action(s).

i. A *Segment III Post-Construction Monitoring Report* to determine whether the Specific Conditions contained in the Segment II permit provide reasonable assurances that state Water Quality Standards will not be violated and that there will be no unacceptable adverse impacts as a result of sedimentation or turbidity. Data for the Report shall be collected by the applicant on a monthly basis during the eighteen (18) month period immediately following construction of Segment III. Methodology and data collection points shall be selected by the applicant along shore-perpendicular transects that have been designated for annual monitoring and approved by the Department as a Notice to Proceed item for Segment III project. Data collection points shall be located on the nearshore limestone ridge and be based upon the presence of individual areas of high coral density and/or larger sized scleractinian coral colonies. Sedimentation values shall also be collected and reported at data collection points along each selected transect. Appropriate control areas outside of the project shall be selected for the comparison. The Report shall include biological parameters to indicate the health of the coral resources. The Department shall prepare its recommendation on this Notice to Proceed Item within 45 days of receipt of the Report as to whether reasonable assurances have been provided. This recommendation will be submitted to the Board of Trustees, who will decide if the Segment II project may proceed as proposed, may proceed with revisions, shall be postponed pending the results of further monitoring, or may not proceed. The Board of Trustees' determination is **not** subject to a petition for an administrative hearing pursuant to sections 120.569 and 120.57, Florida Statutes. In the event the Board of Trustees determines that reasonable assurances are provided under the terms and conditions of the Segment II permit as specified above, the Department shall issue a Notice to Proceed for the beach construction. In the event the Board of Trustees determines that additional or modified conditions are necessary in order for reasonable assurances to exist, the Department shall so modify the permit prior to issuing a Notice to Proceed. The additional or modified conditions may include a delay in commencing the Segment II

project, or project revisions that eliminate, minimize or mitigate the unexpected adverse impacts.

10. The permittee shall construct and maintain a shore-parallel sand dike at the beach disposal area at all times during hydraulic discharge on the beach, and adjust the configuration as necessary to meet turbidity standards prescribed by this permit.

11. Mitigation.

The unavoidable burial of 2.5 acres of nearshore hardbottom that will result from the equilibration of the toe of fill (TOF) shall be mitigated by creating a minimum of 3.0 acres (gross) of artificial hard bottom substrate. All mitigation shall be completed no later than six months after the commencement of the Segment II beach project construction. If artificial reef construction is not completed within the specified time, a time lag coefficient shall be applied to increase the mitigation ratio. The mitigation reef sites in Segment II are located between FDEP monuments R-41 and R-46, R-61 and R-64, R-71 and R-72, and R-72 and R-73.

The artificial reefs shall consist of limestone boulders placed on the sandy ocean bottom. These sites shall be located landward of the first offshore reef and seaward of the estimated equilibrium toe of fill, in mean water depths of 15 to 20 feet. Boulders being placed on the bottom shall be 3 feet (+/- 1 foot) in vertical dimension (measured prior to subsidence), while horizontal dimension may exceed this size, with a specific gravity of at least 2.1, in order to prevent sliding or tipping/rolling during storm events. The distance between individual boulders shall not exceed five feet. In order to minimize subsidence, the selected placement areas shall contain a layer of sand no less than one foot and no more than two feet thick over the underlying limestone. No boulders shall be placed on exposed hardbottom or hardbottom communities covered with a veneer of sand. A 50-foot wide buffer from all significant natural hardbottom habitats shall be maintained during boulder placement. These design specifications are consistent with Department guidelines and general practices used in the construction of artificial reefs along the Atlantic Coast of Florida.

A portion of the artificial reef site between R-45 and R-46 (Mitigation Area II) in Lauderdale-by-the-Sea will serve as the scleractinian coral **transplantation receiver** site in Segment II, and only corals located within the Segment II impact areas will be transplanted to the receiver site in Segment II. Deployment of the artificial reefs at Mitigation Area V, located between FDEP monuments R-70 and R-71, will begin before the commencement of Segment II construction phase. This 0.5-acre area is designated as the algal recruitment test site (see Attachment 1, The Mitigation Plan).

12. Transplantation of corals.

Scleractinian corals from the areas that will be buried by the equilibrium toe of fill shall be transplanted to the mitigation reef in order to minimize impacts to the nearshore area and to initiate or accelerate coral succession. All scleractinian coral colonies measuring 15 cm or more shall be removed from the Equilibrium Toe of Fill impact sites and transplanted into a portion of

the artificial reef designated as the coral transplantation receiver site. There, the corals shall be cemented on the artificial reefs. This transplantation shall be done in the pattern that will a) create a percent bottom cover by corals of about 3% or higher; and b) concentrate particular species to stimulate local recruitment and enhance succession. The created coral community shall be also the subject of a long-term monitoring program to document survival and growth of the transplanted corals.

MONITORING REQUIRED:

13. Water Quality Monitoring (Turbidity)

Turbidity monitoring in the vicinity of the borrow areas and the beach nourishment sites shall be monitored during construction. Turbidity will be measured at background and compliance stations.

A. Borrow Sites:

Frequency: Every six hours during dredging.

Location: Background: Mid-depth, at least 300 meters upcurrent from the dredge site, clearly outside of any turbidity generated by the project.

Compliance: Mid-depth, no more than 150 meters downcurrent from the dredge site, within the densest portion of any visible turbidity plume.

B. Beach Nourishment Sites:

Frequency: Every six hours during pumping operations or other in-water work.

Location: Background: Mid-depth, at a point approximately 150 meters offshore and 300 meters upcurrent from the discharge point, clearly outside of any turbidity generated by the project.

Compliance: Mid-depth, at a point approximately 150 meters offshore and no more than 150 meters downcurrent from the discharge point, within the densest portion of any visible turbidity plume.

Weekly summaries of all monitoring data shall be submitted to the Bureau of Beaches and Coastal Systems (Compliance Officer) and to the Southeast District Office within one week of collection with documents containing the following information: (1) "Broward County Beach Nourishment Project (Segment II), Permit Number 0163435-005-JC"; (2) dates and times of sampling and analysis; (3) a statement describing the methods used in collection, handling, storage and analysis of the samples; (4) a map indicating the sampling locations, current direction, plume configuration and the location of the dredge and discharge point(s); and (5) a statement by the individual responsible for implementation of the sampling program concerning the authenticity, precision, limits of detection and accuracy of the data. Monitoring reports shall also include the following information for each sample that is taken: a) time of day samples

taken; b) depth of water body; c) depth of sample; d) antecedent weather conditions; e) tidal stage and direction of flow; f) wind direction and velocity; and g) DGPS position.

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.

14. Physical Monitoring.

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, aerial photography, 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 first Notice to Proceed, the permittee shall submit a detailed Monitoring Plan subject to review and approval by the Department as described in Specific Condition No. 9. The Monitoring Plan shall indicate the project's predicted design life.

A monitoring plan that combines or uses monitoring from other projects or annual countywide monitoring would be considered. Data collection for this permit may overlap other project monitoring, and consolidation of data collection should be considered. However, monitoring submittals must clearly identify all permits and conditions, and contracts with DEP, that the submittals are intended to satisfy. This will allow for more efficient accounting by all parties and permit compliance accounting by the department.

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. For all subsequent beach nourishment projects following the initial nourishment to be performed under this permit, the Monitoring Plan shall specify a renewal of the same monitoring and monitoring cycle for the beaches and affected borrow site(s).

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 permittee may request a postponement of the first monitoring survey until the following spring/summer. 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. All work activities and deliverables shall be conducted in accordance with the latest update of the *OBCS Statewide Coastal Monitoring Program, Regional Data Collection and Processing Plan, Monitoring Plan Technical Specifications for Topographic and Bathymetric Surveying*.

The influence of Borrow Areas I and II on the adjacent beach shall be monitored in the same manner as the beach fill areas, and the results analyzed for possible adverse effects. These areas extending from Boca Raton Inlet through Hillsboro Inlet shall be specifically monitored, analyzed, and reported as part of an approved Monitoring Plan. Prior to the issuance of a Notice to Proceed, the permittee shall submit a Contingency Plan to remediate any adverse impacts to the beach resulting from the dredging of Borrow Area I. Remedial solutions to be considered should include the placement of beach fill material, as applicable. This Plan shall be subject to review and approval by the Department. The approved Contingency Plan can be revised at any later time by written request of the permittee and with the written approval of the Department.

Not only the areas of the beach fill, but the entire Segment II shoreline from the Port Everglades Inlet north to Hillsboro Inlet shall be monitored in order to capture the effect of the project on the non-nourished areas and other geographical features.

- 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. 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.

Borrow areas shall be monitored pre and post construction, as indicated above, and at four (4) year intervals concurrent with the beach and offshore profile surveys required above.

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 *OBCS Statewide Coastal Monitoring Program, Regional Data Collection and Processing Plan, Monitoring Plan Technical Specifications for Bathymetric Surveying*.

c. Aerial photography of the beach shall be taken concurrently with the post-construction survey and each annual and biennial monitoring survey required above, as close to the date of the beach profile surveys as possible, and during approximate low water tide on that date. The limits of the photography shall include the surveyed monitoring area as described above. The photography shall be color vertical photos with a 30% forward overlap, taken from an elevation of 3,000 feet (1:6,000 negative scale) and centered on the local shoreline. A digital scan of the color photos at a rate of 21 microns with a pixel size of 0.4 feet shall be made and submitted in TIF format (uncompressed) on CD or DVD.

d. The permittee shall submit an engineering report and the monitoring data to the Office of Beaches and Coastal Systems within 90 days following completion of the post-construction survey and each annual or biennial monitoring survey. The survey data and control information should be submitted on electronic media such as floppy disk, or CD-ROM, in an ASCII format stored as specified in the *Statewide Coastal Monitoring Program, Regional Data Collection and Processing Plan, Monitoring Plan Technical Specifications*.

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

- e. Monitoring reports and data shall be submitted to the Office 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 Office, 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 the Broward County Beach Nourishment Project (Segment II), Permit No. 0163435-005-JC for the monitoring period [XX]."**

15. Biological Monitoring

As required in Specific Condition Number 9(d), the permittee shall submit a detailed Biological Monitoring Plan subject to review and approval by the Department.

The biological monitoring program consists of 1) sedimentation surveys of the reef edges adjacent to the borrow areas during and after the construction phase ; 2) pre-construction and post-construction surveys of the pipeline corridors to document impacts to hardbottom communities along the routes, and weekly inspections of the pipelines during construction to check for leaks; 3) a long-term, County-wide reef community health assessment; 4) construction phase and long-term post-construction surveys of the nearshore hardbottom to monitor for secondary impacts; 5) a long-term mitigation monitoring program which includes monitoring of epibenthos, including transplanted corals and coral recruitment, fish, and algal recruitment; and 6) a construction phase and long-term post-construction sea turtle monitoring program. The goals of biological monitoring program are to identify project-related impacts upon protected species and significant biological resources, document succession on the artificial reefs to determine the replacement habitat value of the artificial reefs compared to natural nearshore hardbottom, and to provide a quantitative approach to mitigation for unavoidable and unexpected project-related impacts.

Nearshore hardbottom habitats. Biological and sedimentation monitoring of the nearshore hardbottom habitats adjacent to the beach fill sites shall be conducted during the pre-construction phase, construction phase, immediately after construction, and post-construction. During construction, weekly observations of sedimentation/siltation impacts shall be performed in the nearshore zone via a series of cross-shore transects that extend 300 feet seaward of the equilibrium toe of fill. Stress indicators on scleractinian (stony) and soft coral species must be used in conjunction with standing sediment levels to trigger implementation of corrective actions that may include extension of shore-parallel dikes on the beach, cessation of sand pumping until the discharge plume dissipates, and/or shifting the dredge to an alternate sand source within the approved borrow sites containing a lower percent of fine-grained material. A network of

nearshore monitoring stations / cross-shore **permanent** transects shall be maintained to specifically identify and address potential effects from sediment and turbidity movement to the adjacent, deeper and more stable nearshore hardbottom communities. Annual surveys shall be conducted during the first three years post-construction (Years 1, 2 and 3), and fourth surveys will be conducted at the end of the fifth year (Year 5) post-construction. Fish populations shall be also be assessed annually for three years (Years 1, 2, and 3) at 30 of the epibenthos monitoring sites within the impact areas during the summer months for comparison to the pre-construction survey. Two hardbottom edge surveys will also be conducted by divers propelled via scooter with attached DGPS antennae: one immediate prior to construction and one three years after construction. The final impact of fill equilibration is expected to occur at the end of Year 3 (post-construction).

Offshore hardbottom habitats. Impacts to offshore hardbottom (located adjacent to the borrow sites) from any sedimentation that may be generated by hopper dredging operations shall be monitored throughout construction. The monitoring program shall measure the amount and duration of sedimentation on the reefs and shall include observations for indicators of biological stress to certain species of stony (scleractinian) corals and soft corals. Thresholds for stress to corals shall be identified experimentally and included in the **Monitoring Plan**. There shall be multiple sediment monitoring stations adjacent to each borrow area and six control stations shall be located at six of the County's permanent reef monitoring stations. The sites shall be monitored once every week starting 8 weeks prior to construction, once every week during construction, and once every week for 8 weeks after construction. If, during the first 28 days of dredging for the Segment III project, monitoring of Borrow Area VI triggers an expedited monitoring schedule, the same schedules shall be implemented for the Segment II project. **Use of a borrow area shall be suspended** if the average daily measure of sediment exceeds defined standards. Histological tissue analyses of the corals shall be conducted if stress indicator index values exceed defined levels. All sites shall be revisited, photographed, and examined for cumulative sediment impact six months post-construction and one year post-construction. The long-term, annual reef community monitoring is a continuation and expansion of Broward County's current countywide reef monitoring program.

Monitoring of Mitigation Reef. The colonization of the mitigation reefs by epibenthos shall be monitored semi-annually during the first two post-construction years (Years 1 and 2), and annually during the third and fourth post-construction years (Years 3 and 4). The density of epifauna and percent bottom cover shall be assessed along a series of twenty-five (25) 30-meter long, cross-shore transects. Fish counts (by species and age class) shall be performed along 50 transects (25 on mitigation reefs and 25 on nearby natural hardbottom) for correlation between fish populations and epibenthic communities. A direct comparison of the epibenthic communities and fish assemblages on the mitigation reefs to adjacent (nearby) natural hardbottom shall be made to determine the replacement habitat value of the mitigation reefs.

Long-term monitoring of the mitigation reefs will be performed to determine the replacement habitat value compared to natural nearshore hardbottom. An assessment of algal recruitment,

with an emphasis upon replacement of preferred algal food species for sea turtles, will be conducted as a part of the monitoring program of the mitigation area. An algal recruitment survey in the Fort Lauderdale section of Segment II will be compared to a control mitigation area in Segment III as well as to areas of natural substrate in the impacted areas. If the monitoring records show the algal recruitment is proceeding too slowly and target bottom percent cover of selected "sea turtle food species" (*Bryothamnion* sp., *Gracilaria* sp., and *Hypnea* sp.) has not achieved a combined percent bottom cover of 20% after 1 year of monitoring, acceleration of succession of these algal species shall be initiated by transplantation of algae-covered rock to the mitigation reef test sites.

For the assessment of algal recruitment, two stations, each consisting of three (3), 30 meter long transects spaced at 1 meter intervals, shall be established over a 0.5 acre area of the artificial reef in Fort Lauderdale (Mitigation Area V between R-70 and R-71). In Segment III, two control stations shall be established over a 0.5 acre area of the artificial reef located between FDEP control monuments R-101 and R-104. The 30-meter long transects shall be established following the relief of the boulders so that algal recruitment on both horizontal surfaces and boulder slopes shall be assessed. The same survey methodology shall be used in two control stations on natural hardbottom. The 30-meter long transects shall be documented using digital video sampling (Sony TRV-900) in progressive scan mode. Macroalgae abundance shall be assessed by percent cover using frame grabbing and PointCount'99 software. Species identification within the stations shall be performed *in situ* by a second, qualified diver/biologist (M.S. degree or higher). The biologist shall swim two 1-meter wide corridors within the station and record a comprehensive taxonomic list of species present in the entire 60 square meter box. The algae surveys shall be conducted on a semi-annual basis (spring/summer and fall/winter) for a post-construction period of 4 years.

Sea turtle monitoring. In order to ensure that marine turtles are not adversely affected by the construction activities authorized by this permit, the permittee shall adhere to the following conditions:

- 1 All fill material placed must be sand that is similar to a native beach in the vicinity of the site that has not been affected by prior renourishment activities. The fill material must be equivalent in both coloration and grain size distribution to the native beach. All such fill material must be free of construction debris, rocks or other foreign matter and must not contain, on average, greater than 5 percent coarse gravel or cobbles, exclusive of shell material (retained by the #4 sieve).
2. Beach nourishment shall be started after October 31 and be completed before May 1 in the following areas: R36 to R-43, R-51 to R-72. During the May 1 through October 31 period, no construction equipment or pipes will be stored on the beach in these areas.
3. Construction-related activities are authorized to occur on the nesting beach (seaward of existing coastal armoring structures or the dune crest) during the early part of the nesting

season (March 1 through April 30) in the following areas: R36 to R-43, and R-51 to R-72, 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 until October 31. Only those nests that may be affected by 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. Nest relocations in association with construction activities shall cease when construction activities no longer threaten nests. Nests deposited within areas where construction activities have ceased or will not occur for 65 days shall be marked and left in place unless other factors threaten the success of the nest. Such nests will be marked and the actual location of the clutch determined. A circle with a radius of ten (10) feet, centered at the clutch, shall be marked by stake and survey tape or string. No construction activities shall enter this circle and no adjacent construction shall be allowed which might directly or indirectly disturb the area within the staked circle.
 - b. No construction activity may commence until completion of the marine turtle survey each day.
 - c. It is the responsibility of the permittee to ensure that the project area and access sites are surveyed for marine turtle nesting activity. All nesting surveys, nest relocations screening or caging activities etc. 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 permit issued by the Fish and Wildlife Conservation Commission (FWC), pursuant to Florida Administrative Code 68E-1.
4. If the beach nourishment project will be conducted during the period from November 1 through November 30, daily early morning sea turtle nesting surveys must be conducted 65 days prior to project initiation and continue through September 30, and eggs must be relocated per the preceding requirements.
 5. From March 1 through November 30, staging areas for construction equipment shall be located off the beach. Nighttime storage of construction equipment not in use shall be off the beach to minimize disturbance to sea turtle nesting and hatching activities. 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.
 6. Immediately after completion of the each fill placement event and prior to February 15 for 3 subsequent years if placed sand still remains on the beach, the beach shall be tilled as described below. During the 3 years following each fill placement event, 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. At a minimum, the protocol provided under

a and b below shall be followed. If required, the area shall be tilled to a depth of 36 inches. All tilling activity must be completed prior to March 1. An annual summary of compaction surveys and the actions taken shall be submitted to the FWC. If the project is completed during 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. This condition shall be evaluated annually and may be modified if necessary to address sand compaction problems identified during the previous year.

- 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 lay 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 March 1. 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.
7. Visual surveys for escarpments along the beach fill area shall be made immediately after completion of the beach nourishment project and prior to March 1 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 notification, the permittee shall level escarpments in accordance with mechanical methods prescribed by the FWC.
8. A lighting survey shall be conducted from the renourished berm prior to March 1 of the first nesting season following nourishment to determine if lights or light sources are visible from the newly elevated beach. A report summarizing all lights visible, using standard survey techniques for such surveys, shall be submitted to FWC by March 15.
9. The applicant shall arrange a meeting between representatives of the contractor, the Department, the FWC, and the permitted person responsible for egg relocation at least 30 days prior to the commencement of work on this project. At least 10 days advance notice shall be provided prior to conducting this meeting. This will provide an opportunity for explanation and/or clarification of the sea turtle protection measures.
10. Reports on all nesting activity shall be provided for the initial nesting season and for a minimum of two additional nesting seasons. Monitoring of nesting activity in the three seasons following construction shall include daily surveys and any additional measures authorized by the FWC. Reports submitted 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 filled areas and nonfilled areas in accordance with the attached Table. All reports should be submitted by January 15 of the following year.
11. Reports on the distribution and abundance of marine turtles in the vicinity of the nearshore hard bottom in the project area, on mitigation sites, and on adjacent, undisturbed "control" sites shall also be provided prior to any nourishment activity, during all nourishment work, and then for a minimum of two additional years. Monitoring of in-water sea turtle distributions shall include annual surveys and any additional measures authorized by FWC. Prior to issuance of a Notice to Proceed, the applicant must submit a Monitoring Plan for In-water Sea Turtle Distribution and

Abundance that will be approved by DEP and FWC and incorporated into this permit by reference.

12. Reports on macroalgal distribution and abundance on nearshore hard bottom adjacent to the impact area, at the mitigation site, and on adjacent hard bottom communities that will not be impacted by the proposed nourishment (“control” communities) shall be provided prior to any nourishment activity and then for a minimum of two additional years. These reports shall include annual quantitative assessments of percent cover by species, assessment of algal height per quadrat and per species, and amount of sediment within the quadrat prior to sampling. The amount, or biomass, of different algal species present at different times of the year should also be assessed. While long term monitoring should be done in replicate quadrats, additional plots should be identified (~ 10 cm X 10 cm) and all material, invertebrate, algae and sediment, scraped from the surface. Replicate samples should then be sorted to the highest taxonomic level possible and dried to constant weight.
13. 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.
14. In the event a hopper dredge is utilized for sand excavation, all conditions in the NMFS Biological Opinion for hopper dredging along the SE U.S. Atlantic Coast (dated August 25, 1995) must be followed, and the FWC shall be sent copies of the reports specified in Condition 6 of the Biological Opinion.
15. 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.
16. In order to ensure that manatees are not adversely affected by the construction activities authorized by this permit, the permittee shall adhere to the following conditions:
 - a. The permittee/contractor shall instruct all personnel associated with the project of the potential presence of manatees and the need to avoid collisions with manatees. All construction personnel are responsible for observing water-related activities for the presence of manatee(s), and shall implement appropriate precautions to ensure protection of the manatee(s).

- b. The permittee/contractor 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 of 1972, the Endangered Species Act of 1973, and the Florida Manatee Sanctuary Act of 1978. The permittee and/or contractor may be held responsible for any manatee harmed, harassed, or killed as a result of construction activities.
- c. Prior to commencement of construction, the prime contractor involved in the construction activities shall construct and display at least two temporary signs (placards) concerning manatees. For all vessels, a temporary sign (at least 8.5" X 11") reading "**Manatee Habitat/Idle Speed In Construction Area**" will be placed in a prominent location visible to employees operating the vessels. In the absence of a vessel, a temporary sign (at least 2' X 2') reading "**Caution: Manatee Area**" will be posted in a location prominently visible to land based, water-related construction crews. A second temporary sign (at least 8.5" X 11") reading "**Caution: Manatee Habitat. Idle speed is required if operating a vessel in the construction area. All equipment must be shutdown if a manatee comes within 50 feet of the operation. A collision with and/or injury to a manatee shall be reported immediately to the Florida Marine Patrol at 1-800-DIAL-FMP (1-800-342-5367) and the U. S. Fish and Wildlife Service at (1-904-232-2580) for north Florida or (1-561-562-3909) for south Florida.**" will be located prominently adjacent to the displayed issued construction permit. Temporary notices are to be removed by the permittee upon completion of construction.
- d. Siltation barriers shall be properly secured so that manatees cannot become entangled, and monitored at least daily to avoid manatee entrapment. Barriers shall not block manatee entry to or exit from essential habitat.
- e. All vessels associated with the project operate at "no wake/idle speed" at all times while in the construction area and while in water where the draft of the vessel provides less than a four foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.
- f. If a manatee(s) is seen within 100 yards of the active daily construction/dredging operation, all appropriate precautions shall be implemented to ensure protection of the manatee. These precautions shall include the operation of all moving equipment no closer than 50 feet of a manatee. Operation of any equipment closer than 50 feet to a manatee shall necessitate immediate shutdown of that equipment. Activities shall not resume until the manatee(s) has departed the project area of its own volition.

- g. Any collision with and/or injury to a manatee shall be reported immediately to the "Manatee Hotline" at 1-800-DIAL-FMP (1-800-342-5367). **Collision and/or injury should also be reported to the U. S. Fish and Wildlife Service in Jacksonville (1-904-232-2580) for north Florida or Vero Beach (1-561-562-3909) for south Florida.**
- h. The contractor maintains a log detailing sightings, collisions, or injuries to manatees should they occur during the contract period. A report summarizing incidents and sightings shall be submitted to the FWCC Bureau of Protected Species Management, 620 South Meridian Street, Tallahassee, Florida 32399-1600 and to the U. S. Fish and Wildlife Service, 6620 Southpoint Drive South, Suite 310, Jacksonville, Florida 32216-0912. This report must be submitted within 90 days of completion of the activities conducted in accordance with the permit.

Planting of Dune Vegetation.

17. Dune vegetation of native species may be planted in order to establish and stabilize dunes.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

for Michael 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.

Debra Wauer 6/4/04
Deputy Clerk Date

Prepared by Vladimir Kosyarin

pages attached.