Florida Department of Environmental Protection
Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard Jr.
Secretary

CONSOLIDATED JOINT COASTAL PERMIT AND SOVEREIGN SUBMERGED LANDS AUTHORIZATION

PERMITTEE:
Eric P. Summa, Chief
Environmental Branch
U.S. Army Corps of Engineers
701 San Marco Blvd.
Jacksonville, FL 32207

AGENT:
Nicole Elko
GEC
6150 Rockefeller Rd.
Wadmalaw Island, SC 29487

PERMIT INFORMATION:
Permit Number: 0238664-001-JC

Project Name: Sand Key Beach Nourishment

County: Pinellas

Issuance Date: July 6, 2011

Expiration Date of Construction Phase: July 6, 2021

REGULATORY AUTHORIZATION:

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

PROJECT DESCRIPTION:

The project is to nourish 8.7 miles (14.0 km) of beach on Sand Key. This includes two beach fill segments: from R-56 to R-66 and from 85 feet north of R-71A to R-107. A one-mile gap between the segments (from R-66 to R-71A) will not be filled. The project is authorized to occur multiple times, on an as-needed basis, with the first event requiring approximately 1,017,000 cubic yards of beach-compatible sand. The sand will be dredged from an offshore borrow area located in federal waters. The project has a design berm elevation of +4.1 feet (1.3 m) NAVD88, with a one-foot construction tolerance to a maximum elevation of +5.1 feet NAVD88 (1.6 m). Berm widths and volumes vary from each section.

PROJECT LOCATION:

The beach nourishment site is located on Sand Key, between R-56 to R-66 and between 85 feet north of R-71A to R-107, in central Pinellas County, Sections 1, 12, 13, 18, 19, 24, 25, 30, 31 and 36, Townships 29 and 30 South, Ranges 14 and 15 East, in the Gulf of Mexico, Class III Waters, Pinellas County Aquatic Preserve, Outstanding Florida Waters. The borrow area is

located 10.5 nautical miles offshore of the northern end of the placement area, in the Gulf of Mexico, outside of State Waters.

PROPRIETARY AUTHORIZATION:

This activity also requires a proprietary authorization, as the activity is located on sovereign submerged lands held in trust by the Board of Trustees of the Internal Improvement Trust Fund (Board of Trustees), pursuant to Article X, Section 11 of the Florida Constitution, and Sections 253.002 and 253.77, F.S. The activity is not exempt from the need to obtain a proprietary authorization. The Board of Trustees delegated the Department the responsibility to review and take final action on this request for proprietary authorization in accordance with Section 18-21.0051, F.A.C., and the Operating Agreements executed between the Department and the water management districts, as referenced in Chapter 62-113, F.A.C. This proprietary authorization has been reviewed in accordance with Chapter 253 and Chapter 258, F.S., Chapter 18-20, Chapter 18-21 and Section 62-343.075, F.A.C., and the policies of the Board of Trustees.

As staff to the Board of Trustees, the Department has reviewed the project described above, and has determined that the 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 to Pinellas County, the project's local sponsor, pursuant to Chapter 253.77, F.S., to perform the activity on the specified sovereign submerged lands.

COASTAL ZONE MANAGEMENT:

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

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.

LOCAL SPONSOR AGREEMENT:

The Department will enter into a contractual agreement with the local project sponsor, Pinellas County, under which Pinellas County will be responsible for conducting post construction turtle monitoring, and beach maintenance activities for the protection of nesting marine turtles, their hatchlings and their habitat. The agreement is enforceable against Pinellas County and is independent of this permit.

AGENCY ACTION:

The above named Permittee is hereby authorized to construct the work outlined in the activity description and activity location of this permit and shown on the approved permit drawings, plans and other documents attached hereto. This agency action is based on the information submitted to the Department as part of the permit application, and adherence with the final details of that proposal shall be a requirement of the permit. **This permit and**

authorization to use sovereign submerged lands are subject to the General Conditions and Specific Conditions, which are a binding part of this permit and authorization. Both the Permittee and their Contractor are responsible for reading and understanding this permit (including the permit conditions and the approved permit drawings) prior to commencing the authorized activities, and for ensuring that the work is conducted in conformance with all the terms, conditions and drawings.

GENERAL CONDITIONS:

1. This permit, including its general and specific conditions, must be construed in light of the February 28, 2006 Interagency Coordination Agreement for Civil Works Projects (ICA) between the Department and the Corps. As recognized in the ICA, the Department has the authority to include reasonable conditions in this permit. All of the conditions in this permit, both general and specific, are enforceable to the extent sovereign immunity has been waived under 33 U.S.C. §§ 1323 and 1344(t). The ICA is incorporated herein by reference.

2. All activities approved shall be implemented as set forth in the drawings incorporated by reference and in compliance with the conditions and requirements of this document. The Corps shall notify the Department in writing of any anticipated changes in:

    a) operational plans;
    b) project dimensions, size or location;
    c) ability to adhere to permit conditions;
    d) project description included in the permit;
    e) monitoring plans.

    If the Department determines that a modification to the permit is required then the Corps shall apply for and obtain the modification. Department approval of the modification shall be obtained prior to implementing the change, unless the change is determined by the Department to reduce the scope of work from that authorized under the original permit, and will not affect compliance with permit conditions or monitoring requirements.

3. If, for any reason, the Corps does not comply with any condition or limitation specified herein, the Corps shall immediately provide the Department with a written report containing the following information:

    a) a description of and cause of noncompliance;
    b) the period of noncompliance, including dates and times;
    c) impacts resulting or likely to result from the non-compliance;
    d) steps being taken to correct the non-compliance; and
    e) the steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

Compliance with the provisions of this condition shall not preclude the Department from taking any enforcement action allowed under state law with respect to any non-compliance.

4. The Corps shall obtain any applicable licenses, permits, or other authorizations which may be required by federal, state, local or special district laws and regulations. Nothing herein constitutes a waiver or approval of other Department permits or authorizations that may be required for other aspects of the total project.

5. Nothing herein conveys to the Corps or creates in the Corps any property right, any interest in real property, any title to land or water, constitutes State recognition or acknowledgment of title, or constitutes authority for the use of Florida's sovereign submerged lands seaward of the mean high-water line or an established erosion control line, unless herein provided, and the necessary title, lease, easement, or other form of consent authorizing the proposed use has been obtained from the State.

6. Any delineation of the extent of a wetland or other surface water submitted as part of the application, including plans or other supporting documentation, shall not be considered specifically approved unless a specific condition of this authorization or a formal determination under section 373.421(2), F.S., provides otherwise.

7. Nothing herein authorizes any entrance upon or activities on property which is not owned or controlled by the Corps or local sponsor, or conveys any vested rights or any exclusive privileges.

8. This document or a copy thereof, complete with all conditions, attachments, modifications, and time extensions shall be kept at the work site of the authorized activity. The Corps shall require the contractor to review this document prior to commencement of the authorized activity.

9. The Corps specifically agrees to allow Department personnel with proper identification, at reasonable times and in compliance with Corps specified safety standards access to the premises where the authorized activity is located or conducted for the purpose of ascertaining compliance with the terms of this document and with the rules of the Department and to have access to and copy any records that must be kept; to inspect the facility, equipment, practices, or operations regulated or required; and to sample or monitor any substances or parameters at any location reasonably necessary to assure compliance. Reasonable time may depend on the nature of the concern being investigated.

10. At least forty-eight (48) hours prior to the commencement of authorized activity, the Corps shall submit to the Department a written notice of commencement of activities indicating the anticipated start date and the anticipated completion date.

11. If historic or archaeological artifacts such as, but not limited to, Indian canoes, arrow heads, pottery or physical remains, are discovered at any time on the project site, the Corps shall immediately stop all activities in the immediate area which disturb the soil and notify the Department and the State Historic Preservation Officer. In the event that unmarked human remains are encountered during permitted activities, all work shall stop in the immediate area and the proper authorities notified in accordance with Section 872.05, *Florida Statutes.*

12. Within a reasonable time after completion of construction activities authorized by this permit, the Corps shall submit to the Department a written statement of completion. This statement shall notify the Department that the work has been completed as authorized and shall include a description of the actual work completed. The Department shall be provided, if requested, a copy of any as-built drawings required of the contractor or survey performed by the Corps.

SPECIFIC CONDITIONS:

1. No work shall be conducted until and unless the Department issues a Final Order of Variance (File No. 0238664-002-BV) from Rule 62-4.244(5)(c), F.A.C. to establish an expanded mixing zone for this project.

2. All reports or notices relating to this permit shall be sent to the DEP, Bureau of Beaches and Coastal Systems, JCP Compliance Officer, 3900 Commonwealth Boulevard, Mail Station 300, Tallahassee, Florida 32399-3000 (e-mail address: JCPCompliance@dep.state.fl.us), unless otherwise stated in a specific condition of this permit.

3. The Permittee shall not store or stockpile tools, equipment, materials, etc., in the upland without prior coordination with the Department, and shall not do so within surface waters of the state without a permit modification. Storage, stockpiling or access of equipment on, in, over or through seagrass (or other aquatic vegetation) beds, wetlands or vegetated dunes is prohibited unless 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.

4. 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.

5. **Pre-Construction Conference.** The Permittee shall conduct a pre-construction conference to review the specific conditions and monitoring requirements of this permit with Permittee's contractors, the engineer of record and the JCP Compliance Officer (or designated alternate) prior to each construction event. In order to ensure that appropriate representatives are available, at least twenty-one (21) days prior to the intended

commencement date for the permitted construction, the Permittee is advised to contact the Department, and the other agency representatives listed below:

DEP, Bureau of Beaches & Coastal Systems
JCP Compliance Officer
Mail Station 300
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000
phone: (850) 414-7716
e-mail: JCP Compliance@dep.state.fl.us

DEP Southwest District Office
Submerged Lands & Environmental Resources
13051 N Telecom Pkwy
Temple Terrace, FL 33637
(813) 632-7600

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

The Permittee is also advised to schedule the pre-construction conference at least one 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.

6. **Pre-Construction Submittals.** At least fourteen (14) days prior to the date of the pre-construction conference, the Permittee shall submit the final plans and specifications for this project, which must be consistent with the activity description of this permit and the approved permit drawings. The Permittee shall point out any deviations from the activity description or the approved permit drawings, and any significant changes would require a permit modification. Submittal shall include one (1) hardcopy (sized 11 inches by 17 inches or greater, with all text legible) and one (1) electronic copy of the final plans and specifications. The plans and specifications shall be accompanied by a letter indicating the project name, the permit number, the type of construction activity, the specific type of equipment to be used, the anticipated volume of material to be moved (if applicable) and the anticipated schedule. The final plans and specifications submitted under this condition must comply with all conditions set forth in this permit.

7. In order to minimize the potential for elevated turbidity in Outstanding Florida Waters, the Permittee shall employ best management practices, such as constructing and maintaining a shore-parallel sand dike at the beach fill area at all times during hydraulic discharge on the beach and maintain a minimum set-back for the discharge pipe from open water.

8. Prior to marking the pipeline corridors and offshore work areas in the nearshore zone, scientific divers shall survey the area for hardbottom resources. These surveys shall include bounce dives on potential hardbottom areas (from 2006 side scan surveys), and video surveys of the center and two offset lines (with copies provided to the Department). Additionally, surface buoys shall be installed to delineate the placement over unconsolidated bottom. If the pre-placement survey reveals that hardbottom is present on the edges of the corridors, the buoys shall be placed to avoid these areas. If the pre-placement survey reveals unavoidable hardbottom across the corridor, a revised corridor shall be coordinated with the Department.

   If any deviations to the demarcated corridors occur during pipeline installation, scientific divers shall investigate the corridor for potential damage to hardbottom communities. If damage to hardbottom organisms is detected, the damage shall immediately be remediated to the extent possible, and then damage and remediation efforts will be reported to the Department. If the remediation does not fully restore the functions of the damaged hardbottom, mitigation may be required.

9. Sediment quality shall be assessed as outlined in the Sediment QA/QC Plan (dated April 11th, 2011 and approved by the Department), which is attached herein. Any occurrences of unacceptable material shall be handled according to the protocols set forth in the Sediment QA/QC Plan. The sediment testing result shall be submitted to the Department within 90 days following the completion of beach construction.

10. Construction of the project may not begin until the Local Sponsor Agreement is finalized. In the event that Pinellas County, as the local sponsor for this project, does not conduct all necessary marine turtle protection and monitoring requirements, the Permittee is still responsible for those marine turtle protection measures specified by the applicable U. S. Fish and Wildlife Service Biological Opinion.

Marine Turtle Protection Conditions

11. ***Pre-Construction Meeting.*** A meeting between representatives of the contractor, the Service, the FWC, and the permitted sea turtle surveyor must be held prior to the commencement of work on this project. At least 10 business days advance notice must be provided prior to conducting this meeting. This will provide an opportunity for explanation and/or clarification of the sea turtle and piping plover protection measures as

well as additional guidelines when construction occurs during the nesting season such as storing equipment, minimizing driving, and follow up meetings during construction.

12. ***Marine Turtle Nest Surveys.*** Sand placement activities are authorized to occur on the nesting beach (seaward of existing coastal armoring structures or the dune crest) during the nesting season (May 1 through October 31) under the following conditions:

a) Sea turtle nesting surveys shall be initiated 65 days prior to sand placement or by April 15, whichever is later. Nesting surveys must continue through the end of the project or through September 15, whichever is earlier. Hatchling and emerging success monitoring will involve checking nests beyond the completion date of the daily early morning nesting surveys.

b) Sea turtle nesting surveys and egg relocations will only be conducted by persons with prior experience and training in these activities and who is duly authorized to conduct such activities through a valid permit issued by FWC, pursuant to FAC 68E-1. Nesting surveys must be conducted daily between sunrise and 9 a.m.

c) The contractor shall not initiate work until daily notice has been received from the sea turtle permit holder that the morning survey has been completed. Surveys must be performed in such a manner so as to ensure that construction activity does not occur in any location prior to completion of the necessary sea turtle protection measures.

d) The surveys shall be conducted and eggs shall be relocated per the following requirements.

i) Only those nests that may be affected by material placement will be relocated. Nests requiring relocation shall be moved no later than 9 a.m. the morning following deposition to a nearby self-release beach site in a secure setting where artificial lighting will not interfere with hatchling orientation. Relocated nests shall not be placed in organized groupings; relocated nests shall be randomly staggered along the length and width of the beach in settings that are not expected to experience daily inundation by high tides or known to routinely experience severe erosion and egg loss, or subject to artificial lighting. Nest relocations in association with construction activities shall cease when construction activities no longer threaten nests.

ii) Sea turtle nests deposited where the project activities have ceased or will not occur for 65 days shall be marked and left *in situ* unless other factors threaten the success of the nest. The turtle permit holder shall install an on-beach marker at the nest site and/or a secondary marker at a point landward as possible to assure that future location of the nest will be possible should the on-beach marker be lost. A series of stakes and highly visible survey ribbon

or string shall be installed to establish a 10-foot radius around the nest. No activity shall occur within this area, nor will any activities occur which could result in impacts to the nest. Nest sites shall be inspected daily to assure nest markers remain in place and the nest has not been disturbed by the project activities.

iii) Reports on all nesting activity shall be provided for the initial nesting season and for a minimum of three additional nesting seasons if placed material still remains on the beach. Monitoring of nesting activity in the seasons following construction shall include daily report sheets noting all activity, nesting success rates, hatching success of all relocated nests, hatching success of a representative sampling of nests left in place (if any), dates of construction and names of all personnel involved in nest surveys and relocation activities. Data should be reported separately for the nourished areas and for an equal length of adjacent beach that is not nourished in accordance with the attached Table. Summaries of nesting activity shall be submitted in electronic format (Excel spreadsheets). All reports should submitted by January 15 of the following year.

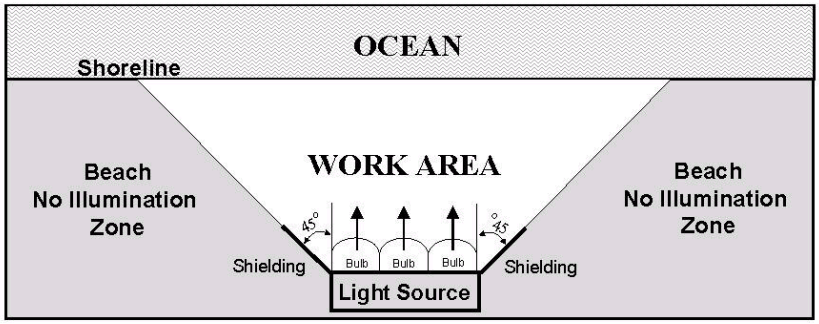
Table 1. Marine Turtle Monitoring for Beach Restoration Projects

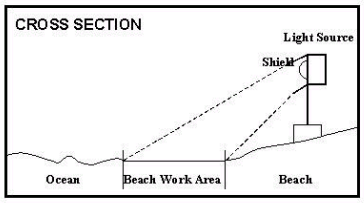
The following monitoring is required for beach restoration and nourishment projects. An electronic spreadsheet summarizing sea turtle nesting and hatching should be submitted electronically to the FWC Imperiled Species Management section by January 15 of the subsequent year (electronic copies can be submitted to MTP@myfwc.com). Data on nesting activity on the nourished beach and on equal length of beach that is not nourished shall be reported separately, and should include number of nests lost to erosion or washed out. The FWC excel spreadsheet is available upon request from MTP@myfwc.com.

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

13. ***Project Lighting***. 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 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, as illustrated below.





BEACH LIGHTING SCHEMATIC

14. ***Equipment Storage***. Staging areas for construction equipment for sand placement shall be located off the beach to the maximum extent practicable from May 1 to October 31, in accordance with the following protocols:

a) Nighttime storage of the beach restoration project construction equipment not in use shall be off the beach to minimize disturbance to sea turtle nesting and hatching activities.

b) All construction pipes that are placed on the beach shall be located as far landward as possible without compromising the integrity of the existing or reconstructed dune system.

i) Temporary storage of pipes shall be off the beach to the maximum extent possible.

ii) Temporary storage of pipes on the beach shall be in such a manner so as to impact the least amount of nesting habitat and shall not compromise the integrity of the dune systems.

iii) Pipes placed parallel to the dune shall be five to ten feet away from the toe of the dune.

15. ***Fill Restrictions***. During nesting season, the contractor shall not extend the beach fill more than 500 feet along the shoreline between dusk and the following day until the daily nesting survey has been completed and the beach cleared for fill advancement, as follows:

a) If the 500 feet is not feasible for the project, an agreed upon distance shall be decided on during the preconstruction meeting.

b) Once the beach has been cleared and the necessary nest relocations have been completed, the contractor is allowed to proceed with the placement of fill during daylight hours until dusk at which time the 500-foot length limitation shall apply.

16. ***Beach Maintenance.*** All derelict concrete, metal, and coastal armoring material and other debris shall be removed from the beach prior to any dredged material placement to the maximum extent practicable. If debris removal activities will take place from April 15 through September 30, the work shall be conducted during daylight hours only and shall not commence until completion of the sea turtle survey each day. All excavations and temporary alterations of the beach topography shall be filled or leveled to the natural beach profile prior to 9 p.m. each day.

17. ***Compaction Sampling***. Immediately after completion of the beach nourishment project and prior to April 1 for 3 subsequent years, sand compaction shall be monitored in the area of sand placement in accordance with the following protocols:

a) Compaction sampling stations shall be located at 500-foot intervals along the project area. One station shall be at the seaward edge of the dune/bulkhead line (when material is placed in this area) and one station shall be midway between the dune line and the high water line (normal wrack line).

b) At each station, the cone penetrometer shall be pushed to a depth of 6, 12, and 18 inches three times (three replicates). Material may be removed from the hole if necessary to ensure accurate readings of successive levels of sediment. The penetrometer may need to be reset between pushes, especially if sediment layering exists. Layers of highly compact material may lie over less compact layers. Replicates shall be located as close to each other as possible, without interacting with the previous hole and/or disturbed sediments. The three replicate compaction values for each depth shall be averaged to produce final values for each depth at each station. Reports shall include all 18 values for each transect line, and the final 6 averaged compaction values.

c) If the average value for any depth exceeds 500 psi for any two or more adjacent stations, then that area shall be tilled prior to April 15.

d) If values exceeding 500 psi are distributed throughout the project area but in no case do those values exist at two adjacent stations at the same depth, then consultation with the FWC shall be required to determine if tilling is required. If a few values exceeding 500 psi are present randomly within the project area, tilling shall not be required.

18. ***Tilling Requirements***. Immediately after completion of the beach fill placement event, and prior to April 15 for 3 subsequent years, if placed sand still remains on the beach, the beach shall be tilled as described below, or the Permittee or Local Sponsor in the years post construction may follow the procedure outlined below to request a waiver of the tilling requirement. During tilling, at a minimum, the protocol provided below shall be followed:

a) The area shall be tilled to a depth of 24 inches. All tilling activity must be completed prior to April 15. Each pass of the tilling equipment shall be overlapped to allow more thorough and even tilling. Tilling should occur landward of the wrack line and avoid all vegetated areas 3 square feet or greater with a 3 foot buffer around the vegetated areas.

b) An annual summary of compaction surveys and the actions taken shall be submitted to the FWC.

c) If the project is completed just before the nesting season, tilling shall not occur in areas where nests have been left in place or relocated unless authorized by the U.S. Fish and Wildlife Service in an Incidental Take Statement.

d) This condition shall be evaluated annually and may be modified if necessary to address sand compaction problems identified during the previous year.

e) To request a waiver of the tilling requirement, the permittee may measure sand compaction in the area of restoration in accordance with a protocol agreed to by the FWC, the Department, the U.S. Fish & Wildlife Service, and the applicant to determine if tilling is necessary.

19. ***Escarpment Surveys***. Visual surveys for escarpments along the beach fill area shall be made immediately after completion of the beach nourishment project and between March 15 and April 15 for the following three years if placed sand still remains on the beach. All scarps shall be leveled or the beach profile shall be reconfigured to minimize scarp formation. In addition, weekly surveys of the project area shall be conducted during the two nesting seasons following completion of fill placement as follows:

a) The number of escarpments and their location relative to DNR-DEP reference monuments shall be recorded during each weekly survey and reported relative to the length of the beach surveyed (e.g., 50% scarps). Notations on the height of these escarpments shall be included (0 to 2 feet, 2 to 4 feet, and 4 feet or higher) as well as the maximum height of all escarpments.

b) Escarpments that interfere with sea turtle nesting or that exceed 18 inches in height for a distance of 100 feet shall be leveled to the natural beach contour by April 15. Any escarpment removal shall be reported relative to R-monument.

c) If weekly surveys during the marine turtle nesting season document subsequent reformation of escarpments that exceed 18 inches in height for a distance of 100 feet, the FWC shall be contacted immediately to determine the appropriate action to be taken. Upon written notification, the permittee shall level escarpments in accordance with mechanical methods prescribed by the FWC.

20. ***Lighting Surveys***. Two surveys shall be conducted of all lighting visible from the beach placement area by the applicant or local sponsor, using standard techniques for such a survey, in the year following construction. The first survey shall be conducted between May 1 and May 15 and a brief summary provided to the Service. The second survey shall be conducted between July 15 and August 1. A summary report of the surveys, including any actions taken, shall be submitted to the FWC Imperiled Species Management Section in Tallahassee by December 1 of the year in which surveys are conducted. After the annual report is completed, a meeting shall be set up with the Applicant or local sponsor, county or municipality, FWC, Corps, and the Service to discuss the survey report, as well as any documented sea turtle disorientations in or adjacent to the project area.

21. In the event a hopper dredge is utilized, the following requirements shall be met in addition to the Terms and Conditions of the NMFS Regional Biological Opinion for Hopper Dredging in the Gulf of Mexico:

a) Handling of sea turtles captured during hopper dredging projects 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 Florida Fish and Wildlife Conservation Commission (FWC), pursuant to Florida Administrative Code 68E-1.

b) *Dredging Pumps*: Standard operating procedure shall be that dredging pumps shall be disengaged by the operator when the dragheads are not firmly on the bottom, to prevent impingement or entrainment of sea turtles within the water column. This precaution is especially important during the cleanup phase of dredging operations.

c) *Sea Turtle Deflecting Draghead*: 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, Dr. Allen Foley, shall be notified at (904) 573-3930 of the start-up and completion of hopper dredging operations.

e) Relocation trawling shall be undertaken at all projects where any of the following conditions are met; however, other ongoing projects not meeting these conditions are not required to conduct relocation trawling:

i) Two or more turtles are taken in a 24-hour period in the project.

ii) Four or more turtles are taken in the project.

22. The Permittee shall e-mail (MTP@MyFWC.com) weekly reports to the Imperiled Species Management section on Friday each week that trawling is conducted in Florida water. 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 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 the ISM by January 15 of the following year.

23. ***Marine Turtle or Nest Encounters***. Upon locating a dead, injured, or sick endangered or threatened sea turtle specimen, initial notification must be made to the FWC at 1-888-404-3922. Care should be taken in handling sick or injured specimens to ensure effective treatment and care and in handling dead specimens to preserve biological materials in the best possible state for later analysis of cause of death. In conjunction with the care of sick or injured endangered or threatened species or preservation of biological materials from a dead animal, the finder has the responsibility to ensure that evidence intrinsic to the specimen is not unnecessarily disturbed. In the event a sea turtle nest is excavated during construction activities, all work shall cease in that area immediately and the permitted person responsible for egg relocation for the project should be notified so the eggs can be moved to a suitable relocation site.

Shorebird Protection Conditions

24. ***Shorebird Surveys***. Shorebird surveys should be conducted by trained, dedicated individuals (Shorebird Monitor) with proven shorebird identification skills and avian survey experience. Credentials of the Shorebird Monitor are approved by Corps and the Corps Construction Office. Copies of person's resumes and qualifications will be

submitted to the FWC Regional Biologist for review. Shorebird Monitors will use the following survey protocols:

a) *Nesting Season Surveys*. Shorebird Monitors should review and become familiar with the general information and data collection protocols outlined on the FWC's Beach-Nesting Bird Website (http://www.flshorebirddatabase.org//). An outline of what data should be collected, including downloadable field data sheets, is available on the website.

b) The nesting season is generally 1 April – 1 September, but some nesting may occur through September. In addition, the imperiled snowy plover (*Charadrius alexandrinus*) may nest as early as February along the west coast and panhandle of Florida.

c) Nesting season surveys shall begin on February 15 or 10 days prior to project commencement (including surveying activities and other pre-construction presence on the beach), whichever is later, and be conducted daily throughout the construction period or through August, whichever is earlier. Weekly surveys of the project site shall continue through August or through fledgling or loss of identified nests or hatchlings, whichever is later.

d) Nesting season surveys shall be conducted in all potential beach-nesting bird habitat within the project boundaries that may be impacted by construction or pre-construction activities during the nesting season. Portions of the project in which there is no potential for project-related activity during the nesting season may be excluded.

e) Surveys for detecting new nesting activity will be completed on a daily basis prior to movement of equipment, operation of vehicles, or other activities that could potentially disrupt nesting behavior or cause harm to the birds or their eggs or young.

f) Surveys should be conducted by traversing the length of the project area and visually inspecting, using binoculars or spotting scope, for the presence of shorebirds exhibiting breeding behavior.

g) If an ATV or other vehicle is needed to cover large project areas, the vehicle must be operated at a speed <6 mph, shall be run at or below the high-tide line, and the Shorebird Monitor will stop at no greater than 200 meter intervals to visually inspect for nesting activity.

h) Once breeding is confirmed by the presence of a scrape, eggs, or young, the Bird Monitor will notify the Regional Nongame Biologist of the FWC at (863) 648-3200 within 24 hours.

i) All breeding activity will be reported to the Beach-Nesting Bird website within one week of data collection.

25. ***Buffer Zones and Travel Corridors***. Within the project area, the Permittee shall establish a 200 ft-wide buffer zone around any location where shorebirds have been engaged in nesting behavior, including territory defense. Any and all construction activities, including movement of vehicles, should be prohibited in the buffer zone. Protocols include:

a) The width of the buffer zone may be discussed and increased if birds appear agitated or disturbed by construction or other activities in adjacent areas.

b) Site-specific buffers may be implemented upon coordination with FWC as needed.

c) Reasonable and traditional pedestrian access should not be blocked where nesting birds will tolerate pedestrian traffic. This is generally the case with lateral movement of beach-goers walking parallel to the beach at or below the highest tide line. Pedestrian traffic may also be tolerated when nesting was initiated within 300 feet of an established beach access pathway. The permittee shall work with FWC staff to determine if pedestrian access can be accommodated without compromising nesting success.

d) Designated buffer zones must be posted with clearly marked signs around the perimeter. If pedestrian pathways are approved within the 200-foot buffer zone, these should be clearly marked. These markings shall be maintained until nesting is completed or terminated. In the case of solitary nesters, nesting is not considered to be completed until all chicks have fledged.

e) No construction activities, movement of vehicles, or stockpiling of equipment shall be allowed within the buffer area.

f) FWC-coordinated travel corridors should be designated and marked outside the buffer areas. Heavy equipment, other vehicles, or pedestrians may transit past nesting areas in these corridors. However, other activities such as stopping or turning shall be prohibited within the designated travel corridors adjacent to the nesting site.

i. Where such a travel corridor must be established within the project area it should avoid critical areas for shorebirds (known nesting sites, wintering grounds, FWC-designated Critical Wildlife Areas, and USFWS-designated critical piping plover habitat) as much as possible, and be marked with signs clearly delineating the travel corridor from the shorebird buffer areas described above.

ii. To the degree possible, the Permittee should maintain some activity within these corridors on a daily basis, without directly disturbing any shorebirds documented on site or interfering with sea turtle nesting, especially when those corridors are established prior to commencement of construction. Passive methods to modify nesting site suitability must be discussed with the FWC Regional Biologist for that region.

26. ***Placement of Equipment and Sand***. If it will be necessary to extend construction pipes past a known shorebird nesting site or over-wintering area for piping plovers, then whenever possible those pipes should be placed landward of the site before birds are active in that area. No pipe or sand shall be placed seaward of a known shorebird nesting site during the shorebird nesting season.

27. ***Notification***. If shorebird nesting occurs within the project area, a bulletin board will be placed and maintained in the construction area with the location map of the construction site showing the bird nesting areas and a warning, clearly visible, stating that "BIRD NESTING AREAS ARE PROTECTED BY THE FLORIDA THREATENED AND ENDANGERED SPECIES ACT AND THE STATE AND FEDERAL MIGRATORY BIRD ACTS".

28. ***Beach Contours***. Shorebird surveys must be conducted at least ten (10) days prior to any tilling or scarp removal that occurs during shorebird nesting season, starting February 15. It is the responsibility of the contractors or the local sponsor in the 3 years' post construction to avoid tilling or scarp removal in areas where nesting birds are present.

a) A relatively even surface, with no deep ruts or furrows, shall be created during tilling. To do this, chain-linked fencing or other material shall be dragged over those areas as necessary after tilling.

b) The slope between the mean high water line and the mean low water line must be maintained in such a manner as to approximate natural slopes.

Manatee Protection Conditions

29. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.

30. 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 will follow routes of deep water whenever possible.
31. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.

32. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shutdown if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.

33. Any collision with or injury to a manatee shall be reported immediately to the FWC Hotline at 1-888-404-FWCC. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-731-3336) for north Florida or Vero Beach (1-772-562-3909) for south Florida.

34. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Awareness signs that have already been approved for this use by the Florida Fish and Wildlife Conservation Commission (FWC) must be used (see MyFWC.com). One sign which reads *Caution: Boaters* must be posted. A second sign measuring at least 81/2" by 11" explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities.

MONITORING REQUIRED:

35. **Water Quality (Applicable to State of Florida waters only)**

Units: Nephelometric Turbidity Units (NTUs).

Frequency: Twice daily at least four hours apart during all dredging and sand placement operations.

Location: ***Background***: At mid-depth clearly outside the influence of any artificially generated turbidity plume.

Beach Site: At least 300 meters upcurrent of the point where the return water from the dredged discharge reenters the Gulf of Mexico or any

portions of the nourished beach, and the same distance offshore as the associated compliance sample.

Compliance: At mid-depth, within the densest portion of any visible turbidity plume generated by this project.

Beach Site with hardbottom resources directly offshore (R-72 to R-107): Samples shall be collected where the densest portion of the turbidity plume crosses the edge of the mixing zone, which measures 150 meters offshore and 1,500 meters downcurrent from the point where the return water from the dredged discharge reenters the Gulf of Mexico. See Diagram 1.

Beach Site without hardbottom resources offshore (R-56 to R-72): Samples shall be collected where the densest portion of the turbidity plume crosses the edge of the mixing zone, which measures 300 meters offshore and 1,500 meters downcurrent from the point where the return water from the dredged discharge reenters the Gulf of Mexico. See Diagram 1.

Intermediate Monitoring Stations: Mid-depth, within the densest portion of any visible turbidity plume, at points approximately 150 meters downcurrent from the discharge location, and also at points approximately 500, 750 and 1,000 meters downcurrent from the discharge location, but not to exceed 150 meters offshore (from R-72 to R-107) or 300 meters offshore (from R-56 to R-72). These measurements are not for compliance purposes, but rather will be used to calibrate the size of the mixing zone for future events.

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 **0 NTUs** above the corresponding background turbidity levels, construction activities shall **cease immediately** at the site 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 at (850) 414-7716 (attn: JCP Compliance Officer).

Turbidity Reports. All turbidity monitoring data shall be submitted within one week of analysis, along with documents containing the following information:

a. time of day samples were taken;

b. dates of sampling and analysis;

c. depth of water body;

d. depth of each sample;

e. antecedent weather conditions, including wind direction and velocity;

f. tidal stage and direction of flow;

g. water temperature;

h. a map indicating the sampling locations;

i. a statement describing the methods used in collection, handling, storage and analysis of the samples;

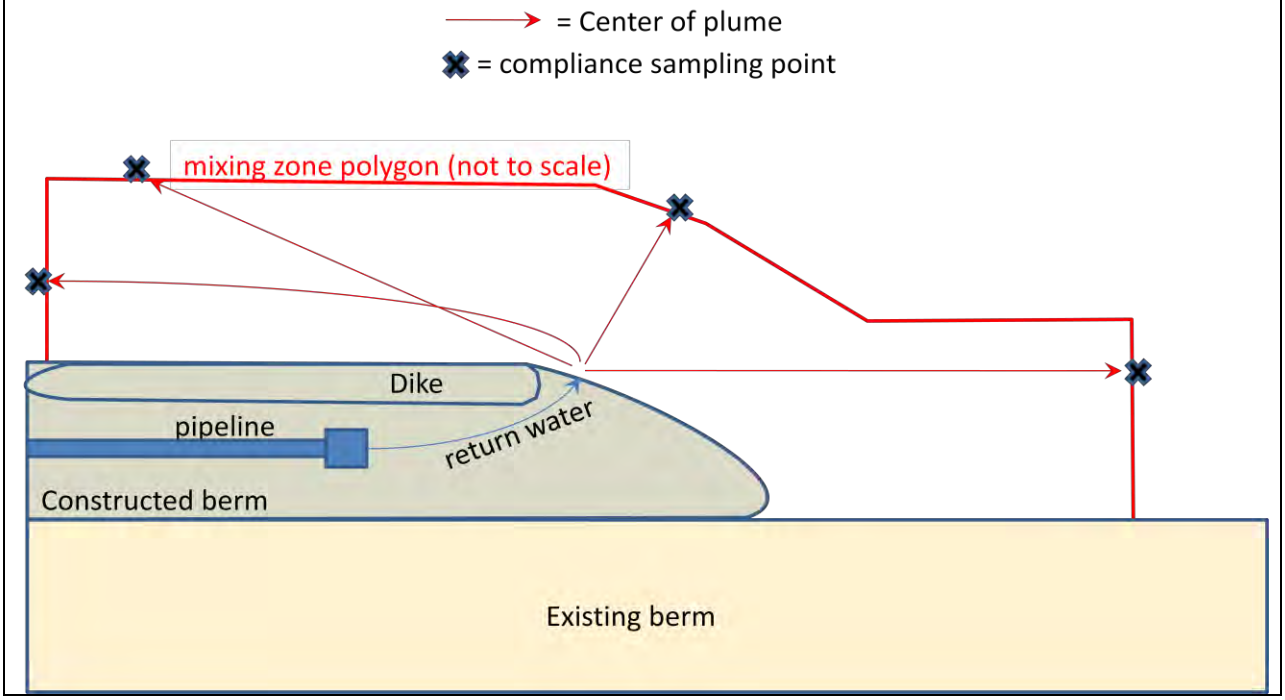
j. a statement by the individual responsible for implementation of the sampling program concerning the authenticity, precision, limits of detection, calibration of the meter and accuracy of the data.

Monitoring reports shall be submitted to the BBCS in Tallahassee (attn: JCP Compliance Officer). Failure to submit reports in a timely manner constitutes grounds for revocation of the permit. When submitting this information to the Department, on the submittal cover page and at the top of each page of the report, please state: "This information is provided in partial fulfillment of the monitoring requirements in Permit No. 0238664-001-JC, for the Sand Key Nourishment Project."

Calibration: The instruments used to measure turbidity shall be fully calibrated prior to but within one month of the commencement of the project, and at least once a month throughout the project. Calibration shall be verified each morning prior to use, and after each time the instrument is turned on, using a turbidity “standard” that is different from the one used during calibration.

DIAGRAM 1
WHERE TO COLLECT TURBIDITY COMPLIANCE SAMPLES

Collect turbidity compliance samples wherever the densest portion of the plume crosses the edge of the mixing zone polygon. The mixing zone polygon extends 150 offshore (or 300 meters offshore if there is no nearshore hardbottom) and 1500 meters downcurrent from the point where return water reenters the Gulf of Mexico.



36. **Turbidity Above Background Procedures:**

The following measures shall be taken when turbidity levels at the compliance locations exceed the standards stated above:

a. If compliance turbidity level exceeds the background level by 2 NTUs or less, the Permittee shall retest the compliance measurement 15 minutes after the initial measurement that indicated non-compliance. If the turbidity level from the first retest continues to be elevated by 2 NTUs or less above background, the Permittee shall retest again 30 minutes after the initial measurement. If neither of the two subsequent compliance measurements are LESS than or equal to the background measurement, the Permittee shall adhere to the additional protocol in sections b., c., d., e. and f. (below).

b. If turbidity exceeds 2 NTUs above background (at any time), or if a series of three 15-minute samples (described above in section a.) continue to be elevated above the

background turbidity level, then the Permittee shall immediately cease all dredge or fill operations that may be contributing to the water quality violation.

c. Modify the work procedures that were responsible for the violation such as reducing the dredge rate and/or installing additional BMPs or repairing any non-functioning turbidity control devices;

d. Notify the JCP Compliance Officer, at JCPcompliance@dep.state.fl.us, within 24 hours of the time the violation is first detected. The violation report shall include the description of the corrective actions taken or proposed to be taken and the turbidity values (background, compliance and the difference) of the violation;

e. Any cessation of dredging operations at the placement site shall continue until monitoring indicates that turbidity levels at the Compliance location are equal to or lower than turbidity levels at the Background location.

f. Provide a copy of all monitoring data sheets to the JCP Compliance Officer within 24 hours of the time when any suspended dredge (inside of State waters) or discharge operations resume (e-mail acceptable).

37. Any project-associated discharge within state waters other than dredging or nourishing the beach (e.g., scow leakage or runoff from temporary containment area) shall be monitored as close to the source as possible every hour until background turbidity levels return or until otherwise directed by the Department. Additionally, any turbidity plume entering state waters from the dredge site shall be subject to turbidity monitoring, as described above. 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 "PROJECT-ASSOCIATED DISCHARGE-OTHER", and include the Project Name and the Permit Number.

38. **PHYSICAL MONITORING REQUIRED:**

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

reducing the need for and costs of unnecessary work, as well as potentially reducing any environmental impacts that may have occurred or be expected.

The Permittee submitted a Physical Monitoring Plan dated March 15, 2010 (transmitted in Response to RAI#2). The Plan is acceptable and approved as part of the specific conditions of the Permit, and is attached herein.

The approved Monitoring Plan can be revised at any later time by written request of the Permittee and with the written approval of the Department. If subsequent to approval of the Monitoring Plan there is a request for modification of the permit, the Department may require revised or additional monitoring requirements as a condition of approval of the permit modification.

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

a. Topographic and bathymetric profile surveys of the beach and offshore shall be conducted within 90 days prior to commencement of construction, and within 60 days following completion of construction of the project. Thereafter, monitoring surveys shall be conducted annually for a period of three (3) years, then biennially until the next beach nourishment event or the expiration of the project design life, whichever occurs first. The monitoring surveys shall be conducted during a spring or summer month and repeated as close as practicable during that same month of the year. If the time period between the immediate post-construction survey and the first annual monitoring survey is less than six months, then the permittee may request a postponement of the first monitoring survey until the following spring/summer. The request should be submitted as part of the cover letter for the post-construction report. A prior design survey of the beach and offshore may be submitted for the pre-construction survey if consistent with the other requirements of this condition.

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

b. The permittee shall submit an engineering report and the monitoring data to the BBCS within 90 days following completion of the post-construction survey and each annual or biennial monitoring survey.

The report shall summarize and discuss the data, the performance of the beach fill project, and identify erosion and accretion patterns within the monitored area. In addition, the report shall include a comparative review of project performance to performance expectations and identification of adverse impacts attributable to the project.

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

c. Two paper copies and one electronic copy of the monitoring report, and one electronic copy of the survey data shall be submitted to the Bureau of Beaches and Coastal Systems in Tallahassee. When submitting any monitoring information to the Bureau, please include a transmittal cover letter clearly labeled with the following at the top of each page: **"This monitoring information is submitted in accordance with the approved Monitoring Plan for Permit No. 0238664-001-JC for the monitoring period [XX].**

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

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

FILING AND ACKNOWLEDGMENT

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

Deputy Clerk 7/16/11
Date

Prepared by Lainie Edwards, Ph.D.

Attachments: Permit Drawings (34 pages)
Sediment QA/QC Plan (April 11, 2011)
Physical Monitoring Plan (March 15, 2010)