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Governor

Department of Environmental Protection

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Colleen M. Castille
Secretary

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

PERMITTEE/AUTHORIZED ENTITY: PERMIT INFORMATION:

Mr. Richard E. Bonner, P.E.
Jacksonville District
U. S. Army Corps of Engineers
Post Office Box 4970
Jacksonville, Florida 32232-0019

Permit/Authorization Number: 0244200-001-JC
Issuance Date: September 19, 2005
Expiration Date of Construction Phase:
September 19, 2015
Project Name: Ocean Ridge Federal Beach
Nourishment Project
County: Palm Beach County

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

ACTIVITY DESCRIPTION:

The project is to nourish approximately 1.1 miles of beach, from approximately 200 feet south of DEP Range Monument R-153 to R-159, with approximately 550,000 cubic yards of beach compatible sand. The berm construction design widths vary from 120 feet to 180 feet, with a berm height of +10 feet MLW and a foreshore slope of 1 (vertical) to 15 (horizontal). The offshore borrow area has four zones of varying maximum dredge depths. The maximum dredge depth for Zone I and Zone IV is -46.0 feet MLW. The maximum dredge depth for Zone II is -44.0 feet MLW. The maximum dredge depth for Zone III is -42.0 feet MLW. The construction of artificial reefs as mitigation is also authorized pursuant to the Local Sponsor Agreement.

ACTIVITY LOCATION:

The nourishment site is located in Ocean Ridge, Palm Beach County, Section 27, Township 45 South, Range 43 East, Atlantic Ocean, Class III Waters.

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The borrow area is located approximately 3,000 feet offshore of DEP Range Monuments R-152 to R-156, Palm Beach County, Section 22, Township 45 South, Range 43 East, Atlantic Ocean, Class III Waters and contains approximately 66.71 acres.

This permit constitutes a finding of consistency with Florida's Coastal 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 nourishment and artificial reef construction activities qualify for a letter of consent to use sovereign, submerged lands, as long as the work performed is located within the boundaries as described herein and is consistent with the terms and conditions herein. Therefore, consent is hereby granted to the local sponsor (Palm Beach County), 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 excavation of the borrow area requires a public easement for the use of those lands, pursuant to Chapter 253.77, F.S. The Department intends to issue the public easement to Palm Beach County (the project's local sponsor), subject to the conditions in the permit and Local Sponsor Agreement.

The final documents required to execute the public 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.** The Department intends to issue the public easement (BOT# 500231086 and easement # 40634) for the life of the permit, subject to the conditions of this permit and the final public easement.

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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 Department will enter into a contractual agreement with the local project sponsor, Palm Beach County, under which the County will be responsible for conducting monitoring, mitigation, and beach maintenance activities for the protection of natural resources, nesting marine turtles, their hatchlings and their habitat. The Local Sponsor Agreement is enforceable against Palm Beach County and is independent of this permit.

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. This permit, including its general and specific conditions, must be construed in light of the Interagency Cooperative Agreement for Civil Works Projects (ICA) between the Department and the U.S. Army Corps of Engineers (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;

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- 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 effect 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 that 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.

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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 which disturb the soil and notify the Department and the State Historic Preservation Officer.
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. Prior to the commencement of construction for each nourishment event authorized by this permit, the Corps will provide two copies of final construction plans and specifications for all authorized activities, which include the project specifications referenced in the Department's Consolidated Notice of Intent to Issue a Joint Coastal Permit and Authorization to Use Sovereign Submerged Lands.
2. 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. No work shall be performed on private upland property until and unless the required construction easements from upland property owners have been obtained. 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.
4. 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 and the DEP Southeast District Office, Submerged Lands & Environmental Resources, 400 N Congress Avenue, Suite 200 West Palm Beach, Florida 33401.
5. No work shall be conducted under this permit for the *initial* nourishment event until the permittee has received a written notice to proceed from the Department. Prior to the requested date of issuance of the notice to proceed, the permittee and/or local sponsor (Palm Beach County) shall submit the following for review and approval by the Department:
 - a. *An executed Local Sponsor Agreement between the local sponsor, Palm Beach County, and the Department* that provides the pre- and post-construction resource protection measures required for this project which are not included in the current federal funding. The Agreement shall state that the local sponsor will construct 2.25 acres of mitigative artificial reef to offset the unauthorized burial of the hardbottom that occurred as a result of the beach restoration project authorized in Wetland Resource Permit No. 502355609 and in Coastal Construction Permit No. DBS9A0330. The executed Agreement shall also outline the monitoring plan to assess any additional impacts to the hardbottom communities that may occur after

the construction of the nourishment events authorized by this permit, and a mitigation plan to offset any such impacts. The local sponsor shall submit acceptable plans for monitoring to the Department, and have them approved by the Department, before nourishment begins.

- b. **An approved sediment QA/QC plan.** This may be submitted in the form of a letter outlining where in the Corps technical specifications certain sediment quality criteria are written, and what the technical specifications state.
 - c. **Turbidity monitoring qualifications.** Construction at the project site shall be monitored closely by an independent third party (not associated with the dredging contractor) to assure that turbidity levels do not exceed the compliance standards established in this permit. Accordingly, an individual familiar with beach construction techniques and turbidity monitoring shall be present frequently enough between sampling events to detect and avert potential turbidity exceedances when fill material is discharged on the beach. This individual shall report non-compliance results to the Corps's Contracting Officer in order to alter construction techniques or shut down the dredging or beach construction operations if turbidity levels exceed the compliance standards established in this permit. All such reports shall also be provided to the JCP Compliance Officer. The names and qualifications of those individuals performing these functions along with 24-hour contact information shall be submitted for approval.
6. No work shall be conducted under this permit for **subsequent** nourishment events until the permittee has received a written notice to proceed from the Department. At least 90 days prior to the requested date of issuance of the notice to proceed, the permittee and/or local sponsor shall submit the following for review and approval by the Department:
- a. An analysis of hardbottom monitoring that has occurred since the previous nourishment event.
 - b. A physical monitoring plan as described in Specific Condition 16 of the 'Monitoring Required' section below, if changes have been made to the approved physical monitoring plan.
 - c. A sediment QA/QC plan, if changes have been made to the approved sediment QA/QC plan.
7. At least 7 days prior to commencement of the construction activities authorized by this permit, including the initial nourishment event and each subsequent nourishment event, the permittee shall conduct a pre-construction conference to review the specific

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conditions and monitoring requirements of this permit with the permittee's contractors, the engineer of record, and Department staff representatives. The permittee shall provide written notification, at least 14 days in advance of the meeting, to the following offices advising of the date, time, location, and teleconference number of the pre-construction conference.

DEP Bureau of Beaches & Coastal Systems
JCP Compliance Officer
Mail Station 300
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000
phone: (850) 414-7716
fax: (850) 414-7725

DEP Southeast District Office
Submerged Lands & Environmental Resources
400 N Congress Avenue, Suite 200
West Palm Beach, Florida 33401
phone: (561) 681-6600
fax: (561) 681-6755

Imperiled Species Management Section
Florida Fish & Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600
phone: (850) 922-4330
fax: (850) 921-4369

8. In the event that the permitted borrow area does not contain enough material for future nourishment events, the Corps shall request a permit modification to incorporate alternative borrow areas as sources for beach compatible material. The Corps shall provide geotechnical information characterizing the sediments to be dredged in accordance with 62B-41.007(2)(j), F.A.C, and any other information deemed by the Department to be necessary for full review of sediment quality and compatibility.
9. The permittee shall construct and maintain a shore-parallel sand dike at the beach placement area at all times during hydraulic discharge on the beach to help meet turbidity standards prescribed by this permit.
10. The permittee shall require the dredging contractor to have electronic positioning equipment that continuously measures the vertical and horizontal location of the dredge at

all times during construction dredging operations. The horizontal positioning equipment shall be installed on the dredge so as to monitor the actual location of the dredge equipment and be interfaced with the depth-monitoring device. This equipment shall provide a permanent record of the position referenced to State Plane Coordinates and NGVD. The Contractor shall, if available, provide telemetry of the instantaneous dredging positioning and digging functions of the project dredges that accommodates electronic charting functions by the Permittee at a remotely located system. As part of the written statement of completion, required by General Condition #12, the permittee shall provide the daily records of the position of the dredge equipment that include the dredge area limits with actual and maximum authorized dredge depth referenced to state plane coordinates and NGVD. Vertical and horizontal accuracy of the positioning equipment shall also be reported. The JCP Compliance Officer shall be notified if the dredge exceeds the maximum vertical and horizontal limits of the borrow area and shall be provided positioning data upon request.

11. **In order to ensure that marine turtles are not adversely affected by construction activities, the following conditions shall be followed in order to protect nesting marine turtles:**
- a. Construction-related activities are authorized to occur on the nesting beach (seaward of existing coastal armoring structures or the dune crest) during the early sea turtle nesting season (March 1 through May 1) under the following conditions:
 - i. 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 September 30 or until the last marked nest has hatched and been evaluated, whichever is later.
 - ii. 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.
 - iii. 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.

- iv. No construction activity may commence until completion of the marine turtle survey each day. While nourishment activities may proceed over a 24-hour period, no new construction activities should proceed on a section of beach after 9 PM and before the morning sea turtle survey unless a nighttime nesting survey has been conducted in that area to ensure no nesting turtles or unmarked nests are present.
 - v. 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.
- b. 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.
- c. From March 1 through November 30, all project lighting shall be limited to the immediate area of active construction only and shall be the minimal lighting necessary to comply with U.S. Coast Guard and/or OSHA requirements. Stationary lighting on the beach and all lighting on the dredge shall be minimized through reduction, shielding, lowering, and appropriate placement of lights to minimize illumination of the nesting beach and water (Figure 1). Shields must be affixed to the light housing and be large enough to block light from all lamps from being transmitted outside the construction area.

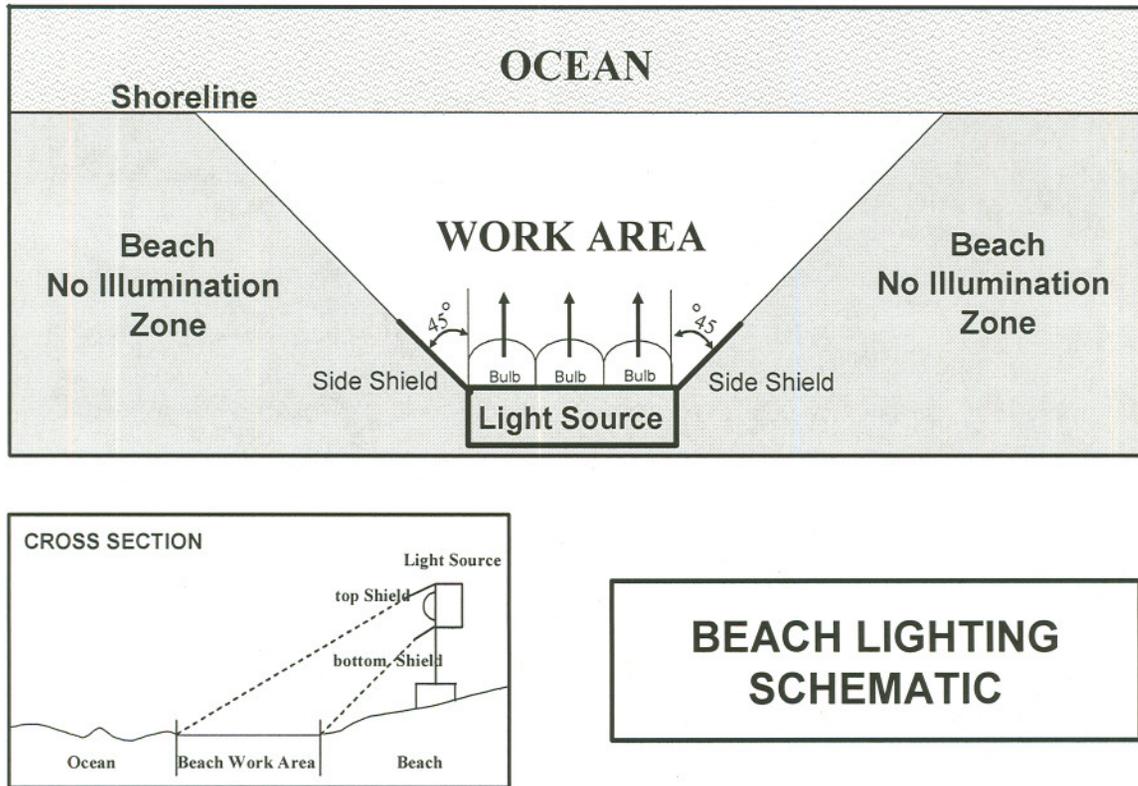


Figure 1. Appropriate placement of lights during beach nourishment if construction occurs during the nesting season.

- e. 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.
- f. Immediately after completion of the fill placement event the permittee shall till the beach as described below. Prior to March 1 for 3 subsequent years, if placed sand still remains on the beach, the local sponsor shall till the beach as described below. During the 3 years following each fill placement event, the local sponsor 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 i. and ii. (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 and to the BBCS JCP Compliance Officer. 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.

- i. 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).
 - ii. 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.
 - iii. 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.
- g. Visual surveys for escarpments along the beach fill area shall be conducted by the permittee immediately after completion of the beach nourishment project. Visual surveys for escarpments along the beach fill area shall be conducted by the local sponsor prior to March 1 for three years following completion of the beach nourishment project, 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, the local sponsor shall conduct weekly surveys of the project area during the two nesting seasons following completion of fill placement as follows:

- i. The number of escarpments and their location relative to DEP Range 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.
 - ii. 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 March 1. Any escarpment removal shall be reported relative to the DEP Range Monument.
 - iii. 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. Scarp remediation shall only occur upon written notification from the FWC; the permittee shall level escarpments in accordance with mechanical methods prescribed by the FWC.
- h. 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 14 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.
- i. Prior to project construction, the permittee and/or local sponsor shall coordinate a meeting between the local sponsor and the Town of Ocean Ridge to discuss the need for appropriate light control measures on buildings adjacent to the nourished berm. By letter of August 12, 2005, the Town of Ocean Ridge agrees to include a lighting survey conducted from the nourished berm prior to March 1 of the first nesting season following nourishment and action taken to ensure that no lights or light sources are visible from any dry portion of 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. The report shall also document all compliance and enforcement actions. Additional lighting surveys shall be conducted monthly through August with results reported by the 15th of each month.

- j. Reports on all nesting activity shall be provided by the permittee and the local sponsor for the initial nesting season and for a minimum of three additional nesting seasons. Monitoring of nesting activity in the 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 Table 1. All reports should be submitted by January 15 of the following year; daily nesting data shall be submitted electronically in Excel spreadsheets.

**Table 1
Marine Turtle Monitoring for Beach Restoration Projects**

The following monitoring is required. Reports summarizing the nesting should be submitted to the FWC Tequesta office with a copy to the FWC Tallahassee office and confirmation of submittal sent to the BBBS JCP Compliance Officer by January 15 of the subsequent year. Data for nesting activity shall be collected on the test beach and on two (2) adjacent control beaches. Control beaches shall be similar to the test beach with respect to profile and slope, background light levels, and human activity. Information from test and control areas should be reported separately, and should include numbers of nests lost to erosion or washed out.

Characteristic	Parameter	Measurement	Variable
Nesting Success	False crawls - number	Visual assessment of all false crawls	Number and location of false crawls in test and control areas: any interaction of the turtle with obstructions, such as groins, seawalls, or scarps, should be noted.
	False crawl – type	Length and 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. The length of each false crawl shall also be measured, and distance to the apex of the crawl noted. GPS coordinates shall be collected at the apex of each false crawl.
	Nests	Number, crawl length, position on the profile	The number of marine turtle nests in test and control areas should be noted. 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. GPS coordinates shall be collected at each nest. 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
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

- k. 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.
- l. 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.

13. In order to ensure that shorebirds are not adversely affected by construction activities, the following conditions shall be followed in order to protect shorebirds:

- a. **Shorebird Surveys.** Shorebird surveys should be conducted by trained, dedicated individuals using accepted, appropriate ecological survey procedures (for example, see "*Breeding Season Population Census Techniques for Seabirds and Colonial Waterbirds Throughout North America*" at URL: <http://www.mp2-pwrc.usgs.gov/cwb/manual/>). The shorebird nesting season generally is April 1 to September 1, 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.
- b. Nesting season surveys shall begin on April 1 (or February 1 in snowy plover habitat) or 45 days prior to construction commencement, whichever is later, and be conducted daily throughout the construction period or through September if no shorebird nesting activity is observed by the permittee and local sponsor.
- c. Each shorebird species observed, a rough estimate of numbers of each species, the location of the birds, and their activity (e.g., foraging, resting, nesting, courtship behavior) should be logged and reported monthly to the FWC Regional Wildlife Diversity Conservation Biologist South Region (Chuck Collins, Regional Director, 8535 Northlake Boulevard, West Palm Beach, FL, 33412, (561)625-5122; 24-Hour Law Enforcement: 561-625-5122) and to the BBCS JCP Compliance Officer.
- d. **Buffer Zones and Travel Corridors.** Within the project area, the permittee shall establish a 300 ft-wide buffer zone around any location where shorebirds have been engaged in courtship or nesting behavior, or around areas where piping plovers

- occur or winter migrants congregate in significant numbers. Any and all construction activities, including movement of vehicles, should be prohibited in the buffer zone.
- i. The width of the buffer zone shall be increased if birds appear agitated or disturbed by construction or other activities in adjacent areas.
 - ii. Site-specific buffers may be implemented upon approval by FWC as needed.
 - iii. Designated buffer zones must be posted with clearly marked signs around the perimeter. These markings shall be maintained until nesting is completed or terminated, the chicks fledge, or piping plovers or winter migrants depart.
 - iv. No construction activities or stockpiling of equipment shall be allowed within the buffer area.
- e. FWC-approved 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.
 - f. 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.
 - g. To the degree possible, the permittee should maintain some activity within these corridors on a daily basis, without directly disturbing any shorebirds documented on site or interfering with sea turtle nesting, especially when those corridors are established prior to commencement of construction. Passive methods to modify nesting site suitability must be approved by the FWC Wildlife Diversity Conservation Biologist for that region.
 - h. **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 FEDERAL MIGRATORY BIRD ACT”.

- i. **Beach Contours.** All tilling and scarp removal should be done outside the shorebird nesting season. If necessary, contractors should contact the FWC Regional Wildlife Diversity Conservation Biologist for the South Region to obtain data on known shorebird nesting areas (Chuck Collins, Regional Director, 8535 Northlake Boulevard, West Palm Beach, FL, 33412, (561)625-5122; 24-Hour Law Enforcement: 561-625-5122). It is the responsibility of the contractors to avoid tilling or scarp removal in areas where nesting birds are present.
 - j. 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.
 - k. 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.
 - l. **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 sand shall be placed seaward of a known shorebird nesting site during the shorebird nesting season.
14. **In order to ensure that manatees are not adversely affected by construction activities, the following conditions shall be followed in order to protect manatees:**
- a. The permittee 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).
 - b. 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 of 1972, The Endangered Species Act of 1973, and the Florida Manatee Sanctuary Act.
 - c. Siltation barriers shall be made of material in which manatees cannot become entangled, are properly secured, and are regularly monitored to avoid manatee entrapment. Barriers must not block manatee entry to or exist from essential habitat.
 - d. All vessels associated with the construction project shall operate at "no wake/idle" speeds 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.

- e. If manatee(s) are seen within 100 yards of the active daily construction/dredging operation or vessel movement, 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 will not resume until the manatee(s) has departed the project area of its own volition.
- f. Any collision with and/or injury to a manatee shall be reported immediately to the FWC Hotline at 1-888-404-FWCC. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-232-2580) for north Florida or Vero Beach (1-561-562-3909) in south Florida.
- g. Temporary signs concerning manatees shall be posted prior to and during all construction/dredging activities (**example attached**). All signs are to be removed by the permittee upon completion of the project. A sign measuring at least 3 ft. by 4 ft. which reads *Caution: Manatee Area* will be posted in a location prominently visible to water related construction crews. A second sign should be posted if vessels are associated with the construction, and should be placed visible to the vessel operator. The second sign should be at least 8 1/2" by 11" which reads *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 operation. Any collision with and/or injury to a manatee shall be reported immediately to the FWC Hotline at 1-888-404-FWCC. The U.S. Fish and Wildlife Service should also be contacted in Jacksonville (1-904-232-2580, Ext. 127) for north Florida or in Vero Beach (1-772-562-3909) for south Florida.*

MONITORING REQUIRED:

- 15. **Water Quality Monitoring.** Turbidity monitoring in the vicinity of the offshore borrow area and beach nourishment site shall be monitored during construction. Turbidity shall be measured at background and compliance stations as follows:
 - a. Borrow Site:
 - Frequency: Every six hours during dredging, with the first sample taken within 1 hour following commencement of each dredging cycle, and

periodically as needed to measure inordinate elevations in turbidity levels.

Location: **Background:** at least 500 meters in the opposite direction of the prevailing current flow, clearly outside of any visible turbidity plume generated by the project. Samples shall be collected from the surface and mid-depth.

Compliance: no more than 150 meters downcurrent from the dredge site, within the densest portion of any visible turbidity plume. Samples shall be collected from the surface and mid-depth.

b. Beach Nourishment Site:

Frequency: Every six hours during pumping operations, re-grading below the MHW line, or other in-water work, with the first sample taken within 1 hour following commencement of each dredging cycle, and periodically as needed to measure inordinate elevations in turbidity levels.

Location: **Background:** at least 500 meters upcurrent from the discharge point, clearly outside of any turbidity plume generated by the project. Samples shall be collected from the surface and mid-depth at the same distance offshore as the compliance station.

Compliance: no more than 150 meters offshore and no more than 150 meters downcurrent, from the point of discharge into State waters. Samples shall be collected from the surface and mid-depth.

c. All monitoring data shall be submitted within one week of analysis with documents containing the following information: (1) permit number; (2) dates 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; (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. **Each exceedance of 29 NTUs above background shall be highlighted in the table and discussed in the report.** Monitoring reports shall also include the following information for each sample that is taken:

- i. time of day samples taken;
- ii. depth of water body;

- iii. depth of sample;
- iv. antecedent weather conditions;
- v. tidal stage and direction of flow; and
- vi. wind direction and velocity.

The compliance locations given above shall be considered the limits of the mixing zone for turbidity allowed during construction. If monitoring reveals turbidity levels at the compliance site greater than or equal to 29 NTUs above background turbidity levels, construction activities shall cease immediately and not resume until corrective measures have been taken and turbidity has returned to acceptable levels. Any such occurrence shall also be immediately reported to the BBCS's JCP Compliance Officer and DEP Southeast District Office, Submerged Lands & Environmental Resources, in West Palm Beach.

Monitoring reports shall be submitted to the BBCS's JCP Compliance Officer in Tallahassee and to the DEP Southeast District Office, Submerged Lands & Environmental Resources, in West Palm Beach. Failure to submit reports in a timely manner constitutes grounds for revocation of the permit. When submitting this information to the DEP, please clearly include, at the top of each page or as a cover page to the submittal: **"This information is provided in partial fulfillment of the monitoring requirements in Permit No. 0244200-001-JC for the Ocean Ridge Nourishment Project."**

16. Physical Monitoring.

- a. The permittee is required to perform the topographic and bathymetric profile surveys of the beach within 60 days following completion of construction of the project. The monitoring area shall include profile surveys at each of the Department of Environmental Protection's DEP Range Monuments 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*.

Monitoring reports and data shall be submitted to the Bureau of Beaches and Coastal Systems, JCP Compliance officer, in Tallahassee within 90 days following survey completion. Failure to submit reports and data in a timely manner constitutes grounds for revocation of the permit. When submitting any monitoring

information to the Bureau, please include a transmittal cover letter clearly labeled with the following at the top of each page: "This monitoring information is submitted in accordance with Item No. [XX] of the approved Monitoring Plan for Permit No. 0244200-001-JC for the monitoring period [XX]"

- b. A Physical Monitoring Plan shall be provided by the Local Sponsor. Pursuant to 62B-41.005(16), F.A.C., physical monitoring of the project is required through bathymetric surveys of the beach, offshore, and borrow site areas, aerial photography, and engineering analysis. Furthermore the monitoring plan shall indicate the project's predicted design life. 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.

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, which 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. 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:

- i. 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 nearshore disposal site 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.*

The influence of the nearshore disposal site on the adjacent beaches shall be specifically analyzed for possible adverse and beneficial effects, and surveys of the nearshore disposal site shall be conducted concurrently with the beach profile surveys required above by extending the profile lines a minimum of 500 feet seaward of the nearshore disposal site seaward boundary. A prior design survey of the nearshore disposal area may be submitted for the pre-construction survey if consistent with the other requirements of this condition.

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

Survey grid lines across the borrow area(s) shall be spaced to provide sufficient detail for accurate volumetric calculations but spaced not more than a maximum of 500 feet apart, and shall extend a minimum of 500 feet beyond the boundaries of the borrow site. For borrow sites located in tidal inlet shoals, bathymetric surveys of the entire shoal complex, including any attachment bars, shall be conducted unless otherwise specified by the Department based upon the size of the shoal and the potential effects of the dredging on inlet processes. In all other aspects, work activities and deliverables shall be consistent with the *BBCS Monitoring Standards for Beach Erosion Control Projects, Section 01200*.

- iii. 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. The limits of the photography shall include the surveyed monitoring area as described above. All work activities and deliverables shall be conducted in accordance with the latest update of the *BBCS Monitoring Standards for Beach Erosion Control Projects, Section 02100 –Environmental Aerial Photography Acquisition*.
- iv. The permittee or the local sponsor 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.

- v. Monitoring reports and data shall be submitted to the Bureau of Beaches and Coastal Systems, JCP Compliance officer, in Tallahassee. Failure to submit reports and data in a timely manner constitutes grounds for revocation of the permit. When submitting any monitoring information to the Bureau, please include a transmittal cover letter clearly labeled with the following at the top of each page: "**This monitoring information is submitted in accordance**

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with Item No. [XX] of the approved Monitoring Plan for Permit No. 0244200-001-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.

 9/19/05
Deputy Clerk Date

Prepared by Lizbeth Meigs.

10 pages attached.

Attachments: Permit Drawings
Caution: Manatee Area sign example