



Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

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

PERMITTEE/AUTHORIZED ENTITY:

Canaveral Port Authority
P.O. Box 267
200 George King Blvd.
Cape Canaveral, FL 32920

Permit/Authorization No.: 0220629-001-JC
Date of Issue: August 25, 2004
Expiration Date of Construction Phase:
August 25, 2014
County: Brevard
Project: Canaveral Harbor Bypassing

This permit is issued under the authority of Chapter 161 and Part IV of Chapter 373, Florida Statutes (F.S.), and Title 62 and 40, Florida Administrative Code (F.A.C.). Pursuant to Operating Agreements executed between the Department and the water management districts, as referenced in Chapter 62-113, F.A.C., the Department is responsible for reviewing and taking final agency action on this activity.

ACTIVITY DESCRIPTION:

The permittee is authorized to dredge approximately 936,000 cubic yards of sand every six years from a borrow area located between the existing mean high water line and the -17.9 foot (NGVD '29) contour and between the north boundary of the Port Canaveral navigation channel and a line parallel and located 8350 feet north of the existing north jetty. The dredged material shall be placed along the shoreline, between the Canaveral Harbor south jetty and southward for up to 18,640 feet (NGVD), (R1 to R20). This material shall be used to construct a beach berm that has a landward elevation of approximately +8.6 feet (NGVD), sloping gradually to a seaward crest elevation of approximately +7.6 feet (NGVD), with a seaward slope of approximately 1:25 to the intersection with the existing seabed. The placement length within these limits shall be determined by the U.S. Army Corps of Engineers for each bypass-project event as a function of the monitored beach conditions. The bypass quantity shall remain fixed, regardless of the placement area length. This 936,000 cubic yards per construction event will be the equivalent to approximately 156,000 cubic yards per year.

The activity includes consideration of an application for a 10-year sovereign submerged lands easement containing 162.8 acres (7,091,568 square feet), more or less, for a nearshore borrow area that will be used for bypassing sand around the inlet.

ACTIVITY LOCATION:

The activity is located on adjacent shorelines north and south of Canaveral Harbor, Brevard County, Section 01 through 12, Township 24 S, Range 37 E, Atlantic Ocean.

This permit constitutes a finding of consistency with Florida's Coastal Zone Management Program, as required by Section 307 of the Coastal Zone Management Act. This permit also constitutes certification of compliance with state water quality standards pursuant to Section 401 of the Clean Water Act, 33 U.S.C. 1341.

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

As staff to the Board of Trustees, the Department has reviewed the activity described above, and has determined that the beach fill qualifies for a consent to use sovereign, submerged lands, as long as the work performed is located within the boundaries as described herein and is consistent with the terms and conditions herein. Therefore, consent is hereby granted, pursuant to Chapter 253.77, F.S., to perform the activity on the specified sovereign submerged lands.

As staff to the Board of Trustees, the Department has reviewed the activity described above, and has determined that the borrow area activity requires a public easement for the use of those lands, pursuant to Chapter 253.77, F.S.

The final documents required to execute the 10-year easement have been sent to the Division of State Lands. The Department intends to issue the easement upon satisfactory execution of those documents. **You may not begin construction of this activity on state-owned, sovereign submerged lands until the easement has been executed to the satisfaction of the Department.**

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

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

GENERAL CONDITIONS:

1. All activities authorized by this permit shall be implemented as set forth in the plans and specification approved as a part of this permit, and all conditions and requirements of this permit. The permittee shall notify the Department in writing of any anticipated deviation from the permit prior to implementation so that the Department can determine whether a modification of the permit is required pursuant to section 62B-49.008, Florida Administrative Code.
2. If, for any reason, the permittee does not comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Bureau of Beaches and Coastal Systems and the appropriate District office of the Department with a written report containing the following information: a description of and cause of noncompliance; and the period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.
3. This permit does not eliminate the necessity to obtain any other applicable licenses or permits which may be required by federal, state, local, special district laws and regulations. This permit is not a waiver or approval of any other Department permit or authorization that may be required for other aspects of the total project which are not addressed in this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of sovereignty land of Florida seaward of the mean high-water line, or, if established, the erosion control line, unless herein provided and the necessary title, lease, easement, or other form of consent authorizing the proposed use has been obtained from the State. The permittee is responsible for obtaining any necessary authorizations from the Board of Trustees of the Internal Improvement Trust Fund prior to commencing activity on sovereign lands or other state-owned lands.

5. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered specifically approved unless a specific condition of this permit or a formal determination under section 373.421(2), F.S., provides otherwise.
6. This permit does not convey to the permittee or create in the permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the permittee. The issuance of this permit does not convey any vested rights or any exclusive privileges.
7. This permit or a copy thereof, complete with all conditions, attachments, plans and specifications, modifications, and time extensions shall be kept at the work site of the permitted activity. The permittee shall require the contractor to review the complete permit prior to commencement of the activity authorized by this permit.
8. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel with proper identification and at reasonable times, access to the premises where the permitted activity is located or conducted for the purpose of ascertaining compliance with the terms of the permit and with the rules of the Department and to have access to and copy any records that must be kept under conditions of the permit; to inspect the facility, equipment, practices, or operations regulated or required under this permit; and to sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules. Reasonable time may depend on the nature of the concern being investigated.
9. At least forty-eight (48) hours prior to commencement of activity authorized by this permit, the permittee shall submit to the Bureau of Beaches and Coastal Systems and the appropriate District office of the Department a written notice of commencement of construction indicating the actual start date and the expected completion date and an affirmative statement that the permittee and the contractor, if one is to be used, have read the general and specific conditions of the permit and understand them.
10. If historical or archaeological artifacts are discovered at any time on the project site, the permittee shall immediately notify the State Historic Preservation Officer and the Bureau of Beaches and Coastal Systems.

SPECIFIC CONDITIONS:

The permittee is hereby advised that Florida law states: "No person shall commence any excavation, construction, or other activity involving the use of sovereign or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund or the Department of Environmental Protection under Chapter 253, until such person has received from the Board of Trustees of the Internal Improvement Trust Fund the required lease, license, easement, or other form of consent authorizing the proposed

use." Pursuant to Florida Administrative Code Rule 18-14.002(1), if such work is done without consent, or if a person otherwise damages state land or products of state land, the Board of Trustees may levy administrative fines of up to \$10,000 per offense.

2. If historical or archaeological artifacts such as, but not limited to, Indian canoes, arrow heads, pottery or physical remains, are discovered at any time within the project site, the permittee shall immediately stop all activities which disturb the soil and notify the Department's District Office and the Bureau of Historic Preservation, Division of Historical Resources, R. A. Gray Building, 500 South Bronough Street, Tallahassee, Florida 32399-0250.
3. At least 48 hours prior to commencement of work authorized by this permit, the permittee shall provide written notification of the date of the commencement and proposed schedule of construction. All documents relating to the permit shall be sent to the JCP Compliance Officer at DEP, Bureau of Beaches and Coastal Systems, 3900 Commonwealth Boulevard, Mail Station 300, Tallahassee, Florida 32399-3000, phone no. (850) 487-4471, and copies shall be sent to DEP, Central District Office, 3319 Maguire Blvd., Suite 232, Orlando, FL 32803, phone no. (407) 894-7555.
4. The terms, conditions, and provisions of the required easement shall be met. Construction of this activity shall not commence on sovereign submerged lands, title to which is held by the Board of Trustees of the Internal Improvement Trust Fund, until all easement documents have been executed to the satisfaction of the Department.
5. No work shall be conducted under this permit for the initial bypassing event until the permittee has received a written **Notice to Proceed** from the Department. At least sixty (60) days prior to the issuance of the notice to proceed, the permittee shall submit for approval a physical monitoring plan as described in the monitoring section of the permit below.
6. At least 14 days prior to the commencement date, the permittee shall conduct a pre-construction conference to review the specific conditions and monitoring requirements of this permit with the permittee's contractors, the FWC and Department staff representatives. The permittee shall provide a minimum 7 days advance written notification to the following offices advising of the date, time, and location of the pre-construction conference.

DEP Bureau of Beaches & Coastal Systems
Attention: JCP Compliance Officer
Mail Station 300
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000
phone: (850) 487-4471

DEP Central District
Submerged Lands and
Environmental Resources Program
3319 Maguire Blvd. Suite 232
Orlando, Florida 32803-3767

Florida Fish and Wildlife Conservation
Commission
620 South Meridian Street Street
Tallahassee, Florida 32399-1600
Phone: (850) 922-4330

7. Within a reasonable time after completion of project construction or a periodic maintenance dredging event, the Applicant shall submit to the Department a written statement of completion from the Corps. 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 a copy of any as-built drawings created or survey performed by the Corps.
8. Beach nourishment shall be started after October 31 and be completed before May 1. During the May 1 through October 31 period, no construction equipment or pipes shall be stored on the beach.
9. Construction-related activities are authorized to occur on the nesting beach (seaward of existing coastal armoring structures or the dune crest) at the beginning and end of the sea turtle nesting season (March 1 through May 30 and November 1 through November 30) under the following conditions.
 - a. A Daily marine turtle nest survey of the nesting beach in the vicinity of the project (including areas of beach access) shall be conducted starting March 1 and continue through September 30. Surveys to assess hatching success should continue until the last marked nest has hatched (see Table 1).
 - b. Only those nests on the nourished beach that may be affected by the construction activities shall be relocated. Nests requiring relocation shall be moved no later than 9 a.m. the morning following deposition to a nearby self-release beach site in a secure setting where artificial lighting will not interfere with hatchling orientation.
 - c. 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.
 - d. No construction activity may commence until completion of the marine turtle survey each day.

- e. It is the responsibility of the permittee to ensure that the project area, including the beach adjacent to the borrow area and the nourished beach, and all 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 Rule 68E-1, F.A.C.

Table 1. Marine Turtle Monitoring for Beach Restoration Projects

The following marine monitoring is required for beach restoration projects by the Florida Fish and Wildlife Conservation Commission, Bureau of Protected Species Management. Reports summarizing the nesting should be submitted to the Tequesta office with a copy to the Tallahassee office by January 15 of the subsequent year. Data for nesting activity on filled and nonfilled 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 fill areas, groin 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 the groins, sea walls or scarps measured using a meter tape (optional). Any abnormal cavity morphologies should be reported as well as whether turtle touched groins, seawalls, or scarps during nest excavation or beach ascent
		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

10. If the sand bypassing project shall be conducted during the period from November 1 through November 30, then daily early morning surveys for late nesting sea turtles shall be conducted 65 days prior to project initiation and continue through September 30, and eggs shall be relocated per the preceding requirements.
11. Nesting surveys shall be conducted on the beach adjacent to the borrow area for a minimum of five (5) years after each construction event performed during the life of the project. All nests found extending landward from the mean high water line that are in danger of inundation or may be uncovered adjacent to the borrow site on Cape Canaveral Air Force Station will be relocated to another area of beach that is unaffected by the sand bypass project, in accordance with requirements in this permit. Turtle nest relocation along the affected beach shall continue for a minimum of five (5) years after each construction event performed during the life of the project.
12. Immediately after completion of the each fill placement event and prior to March 1 for 3 subsequent years if placed sand still remains on the beach, the beach shall be tilled as described below. During the 3 years following each fill placement event, the permittee may measure sand compaction in the area of restoration in accordance with a protocol agreed to by the FWC, the Department, the U.S. Fish & Wildlife Service, and the applicant to determine if tilling is necessary. At a minimum, the protocol provided 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. A report on the results of compaction monitoring and a description of the areas to be tilled shall be submitted to the department prior to any tilling actions being taken. An annual summary of compaction surveys and the actions taken shall be submitted to the Department. This condition shall be evaluated annually and may be modified if necessary to address sand compaction problems identified the previous year.
 - a. If required, the area shall be tilled to a depth of 36 inches. An annual summary of compaction surveys and the actions taken shall be submitted to the FWC. If the project is completed during the nesting season, tilling shall not occur in areas where nests have been left in place or relocated unless authorized by the U.S. Fish and Wildlife Service in an Incidental Take Statement. A report on the results of compaction monitoring shall be submitted to the FWC prior to any tilling actions being taken. This condition shall be evaluated annually and may be modified if necessary to address sand compaction problems identified during the previous year.
 - b. To measure compaction, two (2) 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).

- c. At each station, the cone penetrometer shall be pushed to a depth of 6, 12, and 18 inches three times (three replicates). Material may be removed from the hole if necessary to ensure accurate readings of successive levels of sediment. The penetrometer may need to be reset between pushes, especially if sediment layering exists. Layers of highly compact material may lay over less compact layers. Replicates shall be located as close to each other as possible, without interacting with the previous hole and/or disturbed sediments. The three replicate compaction values for each depth shall be averaged to produce final values for each depth at each station. Reports shall include all 18 values for each transects line, and the final 6 averaged compaction values.
 - d. 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. 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.
3. Visual surveys for escarpments along the beach in both the nourished area and adjacent to the borrow area shall be made weekly during sea turtle nesting season.
 - 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 on the nourished beach shall be leveled to the natural beach contour. Any escarpment removal shall be reported relative to R-monument.
 - c. The permittee shall contact the DEP and the FWC if escarpments that interfere with sea turtle nesting or that exceed 18 inches in height for a distance of 100 feet form on the beach adjacent to the borrow area during nesting season. A determination shall be made at that time if escarpments should be removed or if other remedial actions are necessary.
14. From March 1 through April 30 and November 1 through November 30, staging areas for construction equipment shall be located off the beach to the maximum extent practicable and no construction equipment shall be parked on the beach where it can hinder marine turtle nesting or hatchling emergence. In addition, all construction pipes that are placed on the beach shall be located as far landward as possible without compromising the integrity of the existing or reconstructed dune system. 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 likewise not compromise the integrity of the dune systems.

15. During the early (March 1- April 30) and latter (November 1 – November 30) portions of marine turtle nesting and hatching season, 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).

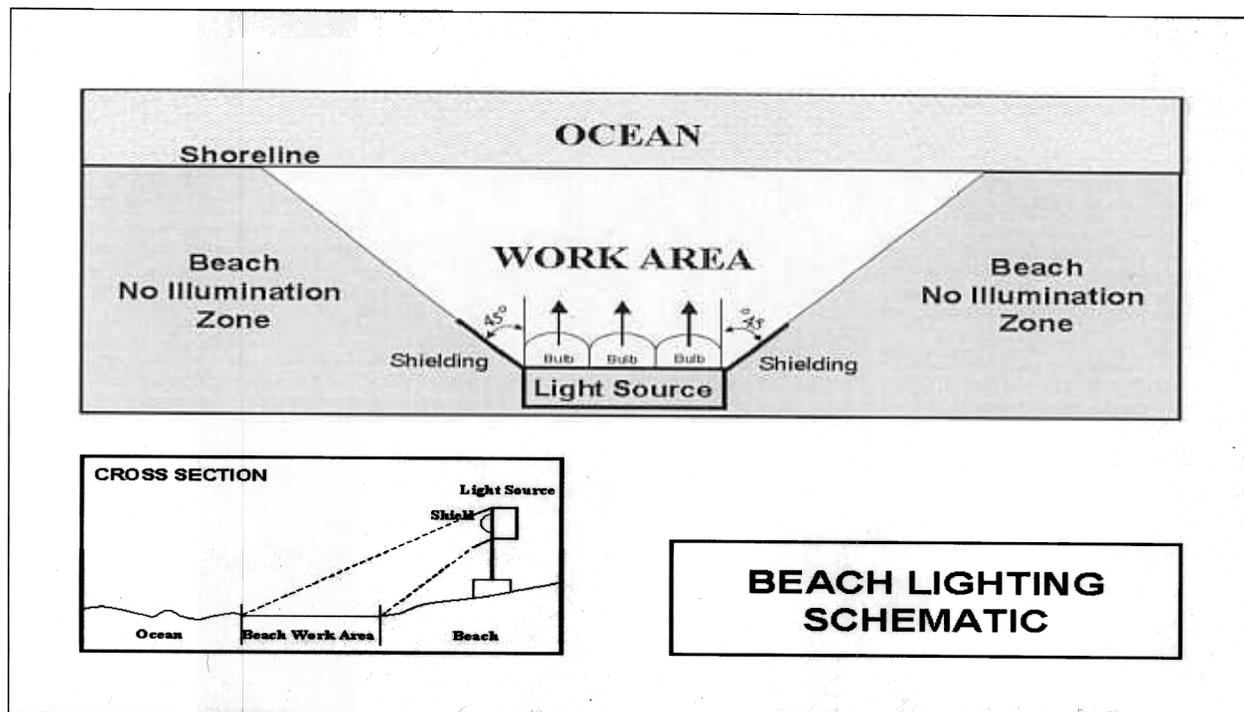


Figure 1. Beach Lighting Schematic

16. A lighting survey shall be conducted from the renourished berm prior to May 10 each year and action taken toward eliminating lights or light sources visible from the newly elevated beach. A report summarizing all lights visible, using standard survey techniques for such surveys, shall be submitted to FWC by May 30. The lighting survey shall be conducted for the year after construction and two years thereafter.
17. The applicant shall arrange a meeting between representatives of the contractor, the Department, the FWC, and the permitted person responsible for egg relocation at least 30 days prior to each nesting season. 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.

18. Reports on all nesting activity and marine turtle protection measures taken during construction shall be provided for the beach adjacent to the borrow area and for the nourished beach for the initial nesting season following the completion of construction, and for a minimum of three additional nesting seasons. Monitoring of nesting activity 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 the sand transfer area and for the adjacent beach in accordance with Table 1 above. Summaries of nesting activity shall be submitted in electronic format (Excel spreadsheets). All reports should be submitted by January 15 of the following year.
19. 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.
20. 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.
21. The beach adjacent to the borrow area and the nourished beach shall be surveyed daily for shorebirds if construction occurs between April 1 through September 1. Post-construction surveys for shorebirds on the beach adjacent to the borrow area shall occur starting April 1 through September the year following construction. 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/>).
 - a. Nesting season surveys shall begin on April 1 or one week prior to construction, whichever is later, and be conducted daily between September 1 and September 30 until shorebird nesting activity is no longer observed.
 - b. 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 to the FWC Regional Wildlife Diversity Conservation Biologist monthly.

22. **Buffer Zones and Travel Corridors.** Within the project area, the permittee shall establish a 300-foot 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.
 - a. The width of the buffer zone shall be increased if birds appear agitated or disturbed by construction or other activities in adjacent areas.
 - b. Site-specific buffers may be implemented upon approval by FWC as needed.
 - c. 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.
 - d. No construction activities or stockpiling of equipment shall be allowed within the buffer area.
23. All tilling and scarp removal should be done outside the shorebird nesting season or in areas being utilized by shorebirds.
 - 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.
24. The permittee shall comply with the manatee protection construction conditions below:
 - 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 that 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.
- 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.

MONITORING REQUIRED:

1. Water Quality - Turbidity - Nephelometric Turbidity Units (NTUs)

Borrow Site:

Frequency: Twice daily at least 4 hours apart during all dredging operations, or if a hopper dredge is used, then approximately midway through each fill cycle while the dredge is actively dewatering or discharging overflow.

Background: 300 meters from the dredge in the opposite direction of the prevailing current flow, clearly outside the influence of any turbid plume. Samples shall be collected from the surface and 1 meter above the bottom.

Compliance: No more than 150 meters downcurrent from the dredge, in the densest portion of any visible turbidity plume. Samples shall be collected from the surface and 1 meter above the bottom.

Beach Nourishment Site:

Frequency: Twice daily at least 4 hours apart during all disposal operations.

Background: At least 500 meters up-current from the point where discharge water is re-entering waters of the State (discharge point), clearly outside of the influence of any turbid plume. Samples shall be collected at the surface and one meter above the bottom, at the same distance offshore as the compliance station.

Compliance: At a point no more than 150 meters downcurrent from the discharge point within the densest portion of any visible turbidity plume caused by the construction activities. If a plume is not visible, the samples shall be collected 50 m from the shoreline. Samples shall be collected from the surface and one meter above the bottom.

All monitoring data shall be submitted within one week of analysis with documents containing the following information: (1) permit number and name of project; (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;

Monitoring reports shall also include the following information for each sample that is taken:

- (a) time of day samples taken;
- (b) depth of water body;
- (c) depth of sample;
- (d) antecedent weather conditions;
- (e) tidal stage and direction of flow; and
- (f) wind direction and velocity.

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 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 JCP Compliance Officer, DEP Bureau of Beaches and Coastal Systems and the Central District office in Orlando.

Monitoring reports shall be submitted to the Bureau of Beaches and Coastal Systems in Tallahassee and to the DEP Central District office. 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. 0220629-001-JC for the Canaveral Harbor Bypassing project."**

2. Physical Monitoring

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

and the need for any adjustments, modifications, or mitigative response to the project. The scientific monitoring process also provides the project sponsor and the Department information necessary to plan, design, and optimize subsequent follow-up projects, potentially reducing the need for and costs of unnecessary work, as well as potentially reducing any environmental impacts that may have occurred or be expected.

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

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

Monitoring methods, standards and specifications required are available on the Department's website at <http://www.dep.state.fl.us/beaches/publications/tech-rpt.htm>. As guidance for obtaining Department approval, the plan shall generally contain the following items:

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

The monitoring area shall include profile surveys at each of the Department of Environmental Protection's DNR reference monuments within the bounds of the beach fill area and along at least 5,000 feet of the adjacent shoreline on both sides of the beach fill area. 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 sub-area. 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, Section 01000 - Beach Profile Topographic Surveying and Section 01100 - Offshore Profile Topographic Surveying.

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

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

- c. Aerial photography of the beach shall be taken concurrently with the post-construction survey and each annual and biennial monitoring survey required above, as close to the date of the beach profile surveys as possible. 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 02000 - Aerial Photography.*
- d. 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.

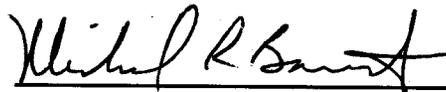
The report shall summarize and discuss the data, the performance of the beach fill project, and identify erosion and accretion patterns within the monitored area. In addition, the report shall include a comparative review of project performance to performance expectations and identification of adverse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

- e. Monitoring reports and data shall be submitted to the Bureau of Beaches and Coastal Systems in Tallahassee. Failure to submit reports and data in a timely manner constitutes grounds for revocation of the permit. When submitting any monitoring information to the Bureau, please include a transmittal cover letter clearly labeled with the following at the top of each page: **"This monitoring information is submitted in accordance with Item No. [XX] of the approved Monitoring Plan for the Canaveral Harbor Bypassing project, Permit No. 0220629-001-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

Prepared by S. B. Roberts and S. M. MacLeod.

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 Date

15 pages attached (permit drawings)