



# Florida Department of Environmental Protection

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## ENVIRONMENTAL RESOURCE PERMIT

### PERMITTEE:

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

### PERMIT INFORMATION:

Permit Number: 0305363-001-BI

Project Name: Longboat Pass to Sunshine Skyway  
GIWW Maintenance Dredging

Counties: Manatee, Pinellas and Hillsborough

Issuance Date: November 14, 2011

Expiration Date of Construction Phase: November 14,  
2021

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### REGULATORY AUTHORIZATION:

This permit is issued under the authority of Part IV of Chapter 373, F.S., and Titles 40, Florida Administrative Code (F.A.C.). The activity is not exempt from the requirement to obtain an environmental resource permit. Pursuant to Operating Agreements executed between the Department of Environmental Protection (Department) and the water management districts, as referenced in Chapter 62-113, F.A.C., the Department is responsible for reviewing and taking final agency action on this activity.

### PROJECT DESCRIPTION:

The project consists of periodic maintenance dredging of the Gulf Coast Intracoastal Waterway (GIWW) in the following areas: Longboat Pass Cut-2 and Cut-3, GIWW Cuts M-5, M-12 and M-14, and cuts SC-2 and SC-3 along the Sunshine Skyway. All dredged material will be placed approximately 1500-5000 linear feet from the Egmont Key shore, between -8 and -13 feet MLLW. The maximum dredging depths are -12 feet MLLW for the Longboat Pass Cuts and -11 feet MLLW for the GIWW and Sunshine Skyway Cuts. The volumes for each project area for the first dredging event are as follows: Longboat Pass cuts will have a total volume of 36,000 cubic yards; GIWW cuts will have a total volume of 77,400 cubic yards; and Sunshine Skyway cuts will have a total volume of 22,800 cubic yards. Future dredging events will not exceed a total volume of 200,000 cubic yards, and will require additional surveys of the placement area at Egmont Key to determine the available capacity.

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The dredging will impact 0.34 acres of seagrass, which will be offset by 0.65 acres of seagrass mitigation in the form of prop scar recovery using seeded sediment tubes, signage and bird stakes in the Big Pass Estuary of Cockroach Bay.

**PROJECT LOCATION:**

The maintenance dredging activity is located within the GIWW federal Navigation channel from Longboat Pass to the Sunshine Skyway Bridge, in Manatee County, Hillsborough County, and Pinellas County, Sections 3, 10, 15, 21, 22, 26, 27, 28, and 34; Townships 31, 32, 33, 34 and 35 South, Ranges 16 and 19 East, Gulf of Mexico, Tampa Bay, Anna Maria Sound, Sarasota Bay, and Longboat Pass, Class II Waters (conditionally approved for shellfish harvesting) and Class III Waters, Boca Ciega Bay Aquatic Preserve, and Sarasota Bay Estuarine System, Outstanding Florida Waters. The disposal site is located in the nearshore area of Egmont Key, approximately 1500 - 5000 linear feet from the western shoreline, from R-7 to R-13, in Hillsborough County, Sections 23 and 26, Township 33 South, Range 15 East. The seagrass mitigation site is located in Cockroach Bay Aquatic Preserve, OFW, Hillsborough County.

**PROPRIETARY AUTHORIZATION:**

The Department acknowledges that maintenance dredging falls within one of the federal powers listed in the Submerged Lands Act under 43 USC 1311(d) or 43 USC 1314, and, under those provisions, the U.S. Army Corps of Engineers (Corps) needs no authorization from the Board of Trustees to utilize sovereignty submerged lands for that activity. However, under the provisions of the Coastal Zone Management Act (16 USC 1451-1465), this activity requires Florida's concurrence with a determination of consistency with the sovereignty submerged lands provisions of Florida's approved Coastal Management program prior to federal approval of the proposed activity. The State has determined that the activity is consistent with the sovereignty submerged lands provisions of Florida's approved Coastal Management program.

**COASTAL ZONE MANAGEMENT:**

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

**WATER QUALITY CERTIFICATION:**

Granting the associated variance to the antidegradation provisions in Rule 62-4.242(2)(a)2.b., F.A.C., authorizes the Permittee to exceed state water quality standards. Therefore, the Department hereby waives water quality certification pursuant to Section 401 of the Clean Water Act, 33 U.S.C. 1341.

**AGENCY ACTION:**

The above named Permittee is hereby authorized to construct the work outlined in the above Project Description, the approved permit drawings, and other approved documents attached hereto or on file with the Department and made a part hereof. **This permit is subject to**

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**the limits, conditions, and locations of work shown in the attached drawings, and is also subject to the attached General Conditions and Specific Conditions, which are a binding part of this permit.** 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. Failure to comply with all drawings and conditions shall constitute grounds for revocation of the permit and appropriate enforcement action.

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**GENERAL CONDITIONS:**

1. This permit, including its general and specific conditions, must be construed in light of the February 28, 2006 Interagency Coordination Agreement for Civil Works Projects (ICA) between the Department and the Corps. As recognized in the ICA, the Department has the authority to include reasonable conditions in this permit. All of the conditions in this permit, both general and specific, are enforceable to the extent sovereign immunity has been waived under 33 U.S.C. §§ 1323 and 1344(t). The ICA is incorporated herein by reference.
2. All activities approved shall be implemented as set forth in the drawings incorporated by reference and in compliance with the conditions and requirements of this document. The Corps shall notify the Department in writing of any anticipated changes in:
  - a) operational plans;
  - b) project dimensions, size or location;
  - c) ability to adhere to permit conditions;
  - d) project description included in the permit;
  - e) monitoring plans.

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

3. If, for any reason, the Corps does not comply with any condition or limitation specified herein, the Corps shall immediately provide the Department with a written report containing the following information:
  - a) a description of and cause of noncompliance;
  - b) the period of noncompliance, including dates and times;
  - c) impacts resulting or likely to result from the non-compliance;

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- d) steps being taken to correct the non-compliance; and
- e) the steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

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

4. The Corps shall obtain any applicable licenses, permits, or other authorizations which may be required by federal, state, local or special district laws and regulations. Nothing herein constitutes a waiver or approval of other Department permits or authorizations that may be required for other aspects of the total project.
5. Nothing herein conveys to the Corps or creates in the Corps any property right, any interest in real property, any title to land or water, constitutes State recognition or acknowledgment of title, or constitutes authority for the use of Florida's sovereign submerged lands seaward of the mean high-water line or an established erosion control line, unless herein provided, and the necessary title, lease, easement, or other form of consent authorizing the proposed use has been obtained from the State.
6. Any delineation of the extent of a wetland or other surface water submitted as part of the application, including plans or other supporting documentation, shall not be considered specifically approved unless a specific condition of this authorization or a formal determination under section 373.421(2), F.S., provides otherwise.
7. Nothing herein authorizes any entrance upon or activities on property which is not owned or controlled by the Corps or local sponsor, or conveys any vested rights or any exclusive privileges.
8. This document or a copy thereof, complete with all conditions, attachments, modifications, and time extensions shall be kept at the work site of the authorized activity. The Corps shall require the contractor to review this document prior to commencement of the authorized activity.
9. The Corps specifically agrees to allow Department personnel with proper identification, at reasonable times and in compliance with Corps specified safety standards access to the premises where the authorized activity is located or conducted for the purpose of ascertaining compliance with the terms of this document and with the rules of the Department and to have access to and copy any records that must be kept; to inspect the facility, equipment, practices, or operations regulated or required; and to sample or monitor any substances or parameters at any location reasonably necessary to assure compliance. Reasonable time may depend on the nature of the concern being investigated.

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10. At least forty-eight (48) hours prior to the commencement of authorized activity, the Corps shall submit to the Department a written notice of commencement of activities indicating the anticipated start date and the anticipated completion date.
11. If historic or archaeological artifacts such as, but not limited to, Indian canoes, arrow heads, pottery or physical remains, are discovered at any time on the project site, the Corps shall immediately stop all activities in the immediate area which disturb the soil and notify the Department and the State Historic Preservation Officer. In the event that unmarked human remains are encountered during permitted activities, all work shall stop in the immediate area and the proper authorities notified in accordance with Section 872.05, *Florida Statutes*.
12. Within a reasonable time after completion of construction activities authorized by this permit, the Corps shall submit to the Department a written statement of completion. This statement shall notify the Department that the work has been completed as authorized and shall include a description of the actual work completed. The Department shall be provided, if requested, a copy of any as-built drawings required of the contractor or survey performed by the Corps.

**SPECIFIC CONDITIONS:**

1. No work shall be conducted until and unless the Department issues a Final Order of Variance (File No. 0305363-002-BV) from Rule 62-4.244(5)(c), F.A.C. to establish an expanded mixing zone, and Rule 62-4.242(2)(a)2.b., F.A.C., to establish a maximum allowable turbidity level above background for work within Outstanding Florida Waters (OFW) for this project.
2. All reports or notices relating to this permit shall be sent to the DEP, Bureau of Beaches and Coastal Systems, JCP Compliance Officer, 3900 Commonwealth Boulevard, Mail Station 300, Tallahassee, Florida 32399-3000 (e-mail address: [JCPCCompliance@dep.state.fl.us](mailto:JCPCCompliance@dep.state.fl.us)).
3. The Permittee shall not store or stockpile tools, equipment, materials, etc., in the upland without prior coordination with the Department, and shall not do so within wetlands or surface waters of the state without a permit modification. Storage, stockpiling or access of equipment on, in, over or through seagrass (or other aquatic vegetation) beds, or wetlands is prohibited unless within a work area or ingress/egress corridor specifically approved by this permit. Anchoring or spudding of vessels and barges (other than the operating dredge) within beds of aquatic vegetation is also prohibited.
4. Anchoring or spudding of the dredge within beds of aquatic vegetation shall be avoided to the maximum extent practicable. If this is unavoidable, the location of each point where a spud, anchor or anchor line is placed within beds of aquatic vegetation shall be

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recorded using DGPS, and the sites shall be evaluated for resource damage after construction.

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

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

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

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

The Permittee is also advised to schedule the pre-construction conference at least one week prior to the intended commencement date. At least seven (7) days in advance of the pre-construction conference, the Permittee shall provide written notification, advising the participants (listed above) of the agreed-upon date, time and location of the meeting, and also provide a meeting agenda and a teleconference number.

6. **Pre-Construction Submittals.** At least fourteen (14) days prior to the date of the pre-construction conference, the Permittee shall submit the following:

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- a. Final plans and specifications for this project, which must be consistent with the project description of this permit and the approved permit drawings. The Permittee shall point out any deviations from the project description or the approved permit drawings, and any significant changes would require a permit modification. Submittal shall include one (1) hardcopy (sized 11 inches by 17 inches or greater, with all text legible) and one (1) electronic copy of the final plans and specifications. The plans and specifications shall be accompanied by a letter indicating the project name, the permit number, the type of construction activity, the specific type of equipment to be used, the anticipated volume of material to be moved (if applicable) and the anticipated schedule. The final plans and specifications submitted under this condition must comply with all conditions set forth in this permit.
  - b. ***Turbidity Monitoring Qualifications.*** Construction and any in-water transportation or rehandling of dredged material shall be monitored closely by an experienced person, to assure that turbidity levels do not exceed the compliance standards. Also, an individual familiar with the dredging techniques being used for this project, and with turbidity monitoring shall be present during daylight hours. This individual shall have authority to alter construction techniques or shut down the dredging or nearshore disposal operations if turbidity levels exceed the compliance standards. The people responsible for conducting or supervising the turbidity monitoring shall have professional experience in monitoring turbidity for Joint Coastal Permits without a record of permit violations. The names, qualifications and records of those individuals performing these functions, along with 24-hour contact information, shall be submitted to the Department.
  - c. As the lands in Hillsborough County are controlled by the Tampa Port Authority, evidence must be submitted to the Department than the Port is aware of the activities occurring on their managed lands.
  - d. As some of the dredging occurs in Class II conditionally approved shellfish harvesting areas, evidence must be submitted to the Department prior to each dredging event that coordination with the Florida Department of Agriculture and Customer Services; Division of Aquaculture has occurred. The Division of Aquaculture office number is 941-833-2552, and they must be contacted at least 48 hours prior to dredging in order to notify the commercial shellfish harvesters in the area prior to the dredging.
7. In order to minimize the potential for elevated turbidity in Outstanding Florida Waters, the Permittee shall employ best management practices during the dredging, transportation and disposal activities.

**Standard Construction Conditions for Manatees and Marine Turtles**

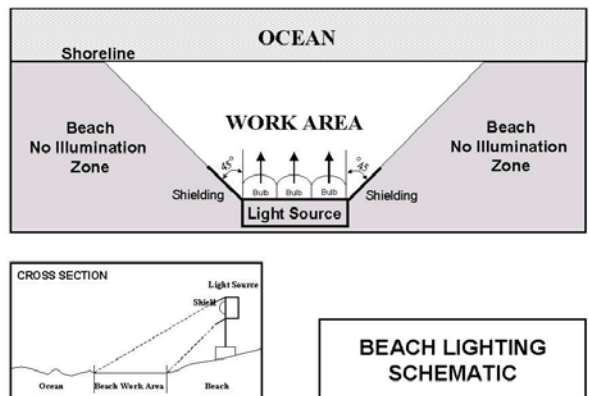
8. The Permittee shall comply with the following conditions intended to protect manatees and marine turtles from direct project effects:
  - a. All personnel associated with the project shall be instructed about the presence of marine turtles, manatees and manatee speed zones, and the need to avoid collisions with (and injury to) these protected marine species. The Permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.
  - b. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels shall follow routes of deep water whenever possible.
  - c. Siltation or turbidity barriers shall be made of material in which manatees and marine turtles cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee or marine turtle movement.
  - d. All on-site project personnel are responsible for observing water-related activities for the presence of marine turtles and manatee(s). All in-water operations, including vessels, shall be shutdown if a marine turtle or manatee comes within 50 feet of the operation. Activities shall not resume until the animal(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the animal(s) has not reappeared within 50 feet of the operation. Animals shall not be herded away or harassed into leaving.
  - e. Any collision with or injury to a marine turtle or manatee shall be reported immediately to the FWC Hotline at 1-888-404-3922, and to FWC at [ImperiledSpecies@myFWC.com](mailto:ImperiledSpecies@myFWC.com). Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service (FWS) for north Florida, Jacksonville Office at 1-904-731-3336 or for south Florida, Vero Beach Office at 1-772-562-3909.
  - f. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs shall be removed by the Permittee upon completion of the project. Temporary signs that have already been approved for this use by the FWC must be used. One sign, which reads *Caution: Boaters*, shall be posted. A second sign measuring at least 8 ½" by 11", explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations, shall be posted in a location prominently visible to all personnel engaged in water-related activities.



These signs can be viewed at [MyFWC.com/manatee](http://MyFWC.com/manatee). Questions concerning these signs can be sent to the email address listed above.

### **Additional Marine Turtle Protection Conditions**

9. **Project Lighting.** Lighting on offshore or onshore equipment shall be minimized through reduction, shielding, lowering, and appropriate placement to avoid excessive illumination of the water's surface and nesting beach while meeting all Coast Guard, EM 385-1-1, and OSHA requirements. Light intensity shall be reduced to the minimum standard required by OSHA for General Construction areas, in order not to misdirect sea turtles. Shields shall be affixed to the light housing and be large enough to block light from all lamps from being transmitted outside the construction area, as illustrated below.



### **MITIGATION:**

10. As Mitigation for the 0.34 acres of seagrass impacts from the channel dredging, 0.65 acres of prop scar and blowout hole mitigation, in the Big Pass Estuary of Cockroach Bay, shall be required in the growing season following construction. Only the acreage of the actual prop scar or blowout hole (injury sites) shall be used in calculating the 0.65 acres. Injury sites shall be restored using pre-seeded sediment tubes, and signage (if authorized by FWC) may be used to facilitate the recovery of the area. Sediment Tube® technology shall be used to restore the prop scar areas. Informational signage that has been approved by FWC may also be erected to warn boating communities of shallow water, and reduce potential groundings.

Reference sites will be established adjacent to the mitigation sites, and used to establish success criteria (coverage and density) for this restoration project. Reference sites shall be undisturbed sites with established seagrass beds, so a comparison to the mitigation sites can determine if background impacts exist that are not related to the injury or failure

of the restoration activity, such as degraded water quality or disease affecting natural recolonization or sprouting of seeded plants.

Monitoring of mitigation areas is required, per specific condition 16. The approved mitigation plan, accepted on August 12, 2011, is attached to this permit.

#### **MONITORING REQUIRED:**

##### **Seagrass Monitoring for Secondary Impacts Adjacent to the Channel**

11. In order to determine the extent of project-related seagrass impacts beyond the dredge channel, the seagrass areas identified as impact areas in the preconstruction seagrass survey shall be resurveyed within 50 feet of the channel edge using the same established transects and sampling techniques as utilized for the preconstruction survey. The location of each point where a spud, anchor or anchor line is placed within beds of aquatic vegetation shall also be evaluated for resource damage after construction. Seagrass beds located between transects shall be visually assessed, and representative quadrat data shall be collected for the bed, and measurements taken for mapping purposes.
  - a. Seagrass bed edges shall be recorded using the line – intercept method, and mapped following construction in the same timeframe (season) as the initial mapping. During mapping of the seagrasses, the biologist shall note seagrass species, and DGPS positioning shall be recorded for changes in species along the edges. Areas affected by anchoring, spudding, shoaling, sloughing scouring, sedimentation or turbidity will be evaluated and quantified to determine the extent to which the limit of seagrass coverage has changed in response to the physical change and will be evaluated in conjunction with the results of the biological monitoring. Seagrass polygons shall be developed to determine spatial coverage from the mapping data.
  - b. Every 5 meters along transects where seagrasses are present, point-quadrat sampling shall be used to assess percent cover, determine species composition, and facilitate qualitative descriptions. Quadrats measuring 1 meter x 1 meter shall be subdivided into 100, 10 cm x 10 cm plots, to be used for this assay. Percent cover shall be visually estimated using a modified Braun – Blanquet abundance scale.
  - c. ***Biological Monitoring Qualifications:*** The individuals who will be conducting the biological monitoring shall be certified SCUBA divers, shall have professional experience in conducting seagrass monitoring surveys, and shall have a BS degree or higher in marine biology. The names and qualifications of those individuals performing these functions shall be submitted to the Department.

12. The post construction survey shall be submitted to the Department within 90 days of survey. The report shall report and summarize the monitoring data, noting any project-related impacts. The report shall contain an analysis of secondary impacts based upon the results of the biological monitoring. Seagrass mapping in addition to the line-intercept data, coupled with the point quadrat data across the transect lines, shall be submitted to provide detailed information regarding impacts to seagrasses within 50 feet of the channel dredging area. Areas shall be quantified to determine the extent to which the limit of seagrass coverage has changed and any areas where seagrass have been damaged or degraded.
13. In the event more impacts have occurred from the project than the originally estimated 0.34 acres of impact, additional mitigation shall be provided. As the post construction survey will occur within the first year of construction, the Permittee shall submit the location of where the additional prop scar mitigation will occur, or submit an alternate mitigation plan.

### **Mitigation Monitoring**

14. ***Aerial mapping.*** At the mitigation site, aerial mapping shall be conducted by the Corps' unmanned aerial vehicle (UAV) equipped with high-resolution (Olympus 10-megapixel digital single lens reflex camera). The UAV shall be flown at an elevation of around 50-feet above the water in transects that overlap by 60%. The aerial shall be calibrated as needed and ortho-rectified to compose a seamless mosaic with coverage of the entire study area, including all the individual restored injury sites. Aerial photo-interpretation shall be used to confirm new growth of seagrass species, in contrast to exposed sediment tubes within the restored injury sites.
15. ***Ground truthing.*** Diver surveys shall be conducted along the axis of the injury site to ground-truth data generated by the aerals and to assess the area. DGPS positions of these locations shall be recorded. A diver shall swim the centerline of the axis noting the linear extent of substrate within a 1-meter wide area. Any scour, injury or growth-prohibiting conditions shall be noted and recorded. Point-intercept quadrat samples shall be taken and evaluated to describe seagrass coverage, and document changes in bed density, as well as species composition.

A number of point-intercept quadrat samples (enough to comprise 5% of the restoration area for each injury site) taken at randomly generated points, shall be evaluated in selected locations within the restoration area. A sufficient number of samples shall be taken to fully represent the restored injury sites. A modified Braun-Blanquet visual assessment method shall be used at each location, in order to assess species composition for single or mixed species, and photographs or video of each location shall also be taken. New random sites shall be generated prior to each monitoring event.

16. ***Measurement of shoot growth development.*** The density of aerial coverage by developing shoot growth shall be evaluated within the restoration site(s) as well as adjacent reference site(s). This will compare the density of an area (based on the fraction of the quadrat dominated by a particular species when viewed directly from above) to the amount of shoot growth (determined by counts of shoots within a 25-cm x 25-cm subplot, placed within the 50-cm x 50-cm standard quadrat).
17. ***Success Criteria.*** The mitigation site shall be monitored for the following success criteria.
1. Aerial coverage of seagrass within the restoration site shall be within 15% of that in reference site within the first 6 months of reestablishment.
  2. After 12 months of post-construction, the areal coverage within the restoration site shall be 45% of vegetative coverage overall.
  3. At the end of the second year, the restoration site shall achieve a total of 85% coverage for success determination.

A success determination will be accomplished by considering counts of plant shoots and an estimation of percent coverage within sample quadrats to determine density and percent coverage (in contrast to bare areas). The success criteria for vegetation establishment within restored areas include Braun-Blanquet scores within 1 unit of reference site. Additionally, if indicators determine that success criteria are not being met, and that the restoration is determined to be failing, contingency measures as part of the Adaptive Management Plan shall be implemented.

18. ***Adaptive Management Plan.*** In the event that restoration measures fail to meet the goals as established by the success criteria, as documented by monitoring event data, adaptive management measures shall be enacted. These measures may include:
1. Replace sediment tubes that have not stabilized the injury site(s), as indicated by the lack of seagrass seedling sprout or shoot growth, loss of areal coverage by target species, subsidence, or subsequent injury to sediment tubes or substrate.
  2. Replant seagrass species by shoot transplanting or re-seeding.
  3. Utilize additional injury sites that show more promise of successful establishment than those currently in use.
  4. Additional monitoring events or prolonged schedule until success criteria are achieved.

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19. **Monitoring Schedule.** The mitigation monitoring schedule shall occur according to the following schedule:

- a. Immediately following restoration of the site;
- b. Semi-annually during the first year (6 and 12 months);
- c. Semi-annually during the second year (6 and 12 months); and
- d. Annually for year three (12 months after the 12 month year-two survey).

Reports are required to be submitted to the Department within 90 days of each survey completion. Aerial photography, in addition to the qualitative and quantitative data collected shall be summarized, evaluated and discussed in the report.

Should the system fail to reestablish seagrass colonization at the expected rate, and contingency measures are implemented, the monitoring event schedule shall start over to a semi-annual survey for a period of at least one year following the adaptations for those sites requiring additional attention. If additional annual monitoring events are required, these could be conducted for up to five years as necessary. If the mitigation has not achieved success by the end of the monitoring, a new mitigation plan shall be proposed.

20. **Water Quality Monitoring**

Units: Nephelometric Turbidity Units (NTUs).

Frequency: Twice daily at least four hours apart during all dredging and sand placement operations, when the heaviest turbidity crosses the edge of the mixing zone.

Location: **Background:** At mid-depth clearly outside the influence of any artificially generated turbidity plume, approximately 300 meters in the opposite direction of the prevailing current flow.

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

**Dredge Site SC-3, M-14, M-12, M-5, LB -2 and LB-3 (in OFW):** Samples shall be collected 300 meters downcurrent from the dredge head, in the densest portion of any visible turbidity plume.

**Dredge Site SC-2 (not in OFW):** Samples shall be collected 150 meters downcurrent from the dredge head, in the densest portion of any visible turbidity plume.

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**Nearshore Disposal Site (not OFW):** Samples shall be collected 150 meters downcurrent from the point of discharge.

***Intermediate Monitoring Stations in OFW:*** Mid-depth, approximately concurrent with the compliance monitoring, within the densest portion of any visible turbidity plume, 150 meters downcurrent from the source of turbidity. These measurements are not for compliance purposes, but rather will be used to calibrate the size of the mixing zone for future events.

The **compliance** locations given above shall be considered the limits of the temporary mixing zone for turbidity allowed during construction. If monitoring reveals turbidity levels at the **compliance** sites that are greater than **7 NTUs** above the corresponding background turbidity levels within Outstanding Florida Waters (Cut SC-3, M-14, M-12, M-5, LB -2 and LB-3), or are greater than **29 NTUs** outside of Outstanding Florida Waters (Cut SC-2 and nearshore placement at Egmont Key), construction activities shall **cease immediately** at the site and not resume until corrective measures have been taken and turbidity has returned to acceptable levels. Any such occurrence shall also be immediately reported to the Department's Bureau of Beaches and Coastal Systems (BBCS) in Tallahassee at (850) 414-7716 (attn: JCP Compliance Officer), and any occurrences in Class II waters (Boca Ciega Aquatic Preserve, cuts SC-2 and SC-3, and portions of M-5 in Sarasota Bay) must be also reported to the Florida Department of Agriculture and Customer Services; Division of Aquaculture at 941-833-2552.

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

- a. time of day samples were taken;
- b. dates of sampling and analysis;
- c. depth of water body;
- d. depth of each sample;
- e. antecedent weather conditions, including wind direction and velocity;
- f. tidal stage and direction of flow;
- g. water temperature;
- h. a map indicating the sampling locations;

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- i. a statement describing the methods used in collection, handling, storage and analysis of the samples;
- j. a statement by the individual responsible for implementation of the sampling program concerning the authenticity, precision, limits of detection, calibration of the meter and accuracy of the data.

Monitoring reports shall be submitted to the BBCS in Tallahassee (attn: JCP Compliance Officer). Failure to submit reports in a timely manner constitutes grounds for revocation of the permit. When submitting this information to the Department, on the submittal cover page and at the top of each page of the report, please state: "This information is provided in partial fulfillment of the monitoring requirements in Permit No. 0305363-001-BI, for the Longboat Pass to Sunshine Skyway GIWW Maintenance Dredging Project."

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

- 21. If there is a conflict between the project description, the permit conditions, the approved permit drawings, the attached plans or other approved documents, the specific conditions shall prevail, followed by the project description, and then the permit drawings.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

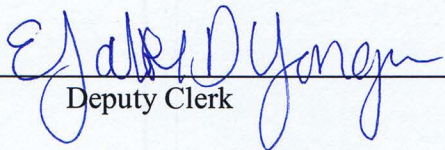


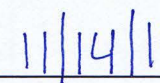
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Gene Chalecki, P.E., Acting Chief  
Bureau of Beaches and Coastal Systems

**FILING AND ACKNOWLEDGMENT**

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

  
\_\_\_\_\_  
Deputy Clerk

  
\_\_\_\_\_  
Date

Prepared by Lainie Edwards, Ph.D..

Attachments: Approved Permit Drawings (22 pages)  
Mitigation Plan (approved on 8-22-2011)