



APPROVED

Physical Monitoring Plan
Permit #: 0303863-001-JC

Division of Water Resource Management

Physical Monitoring Plan
Jupiter Carlin Segment, Palm Beach County Shore Protection Project

Prepared for

Florida Department of Environmental Protection
Joint Coastal Permit Application

By

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February 2013

Physical Monitoring Plan
Jupiter/Carlin Segment, Palm Beach County Shore Protection Project

The Jupiter/Carlin Segment of the Palm Beach County Shore Protection Project will place approximately 700,000 cubic yards (cy) of sand (based on 2012 profiles) along nearly 1.1 mile of beach in Palm Beach County. The project includes one reach extending from Florida Department of Environmental Protection (FDEP) reference monuments R-13 to R-19 (Carlin Park). The physical monitoring control area extends about 4,580 feet (ft) south of the project area; thus, the control areas include reference monuments R-20 to R-23. This physical monitoring plan includes topographic and bathymetric surveys of the offshore, beach, and borrow sites; aerial photography; and engineering analysis. If future revision of this plan becomes necessary, the permittee will, by written request, notify the FDEP.

Topographic and Bathymetric Surveys

Beach and Offshore Area – Project Performance Monitoring

The monitoring area, which includes the project and the control areas described above, will consist of profile surveys at every FDEP reference monument for a total of 11 profiles.

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 late spring/summer. The request should be submitted as part of the cover letter for the post-construction report.

All work activities and deliverables will follow the March 2004 update of the Bureau of Beaches and Coastal Systems (BBCS) Monitoring Standards for Beach Erosion Control Projects, Sections 01000 (Beach Profile Topographic Surveying) and 01100 (Offshore Profile Surveying). (Document available on the web at: <http://www.dep.state.fl.us/beaches/publications/pdf/standard.pdf>.)

Borrow Area

The borrow area lies approximately 3,900 ft offshore Singer Island between R-54 and R-65, in water depths between about 46 and 72 ft. The borrow area surveys will consist of transect lines, spaced 500 ft apart, within and 500 ft beyond all sides of the borrow site.

Palm Beach County will conduct a pre-construction survey no more than 90 days before construction begins and a post-construction survey no more than 60 days after construction ends. A prior design survey may be submitted as a pre-construction survey. For an estimated project start date of November 2013 and estimated project completion date of February 2014, the county anticipates collecting a pre-construction survey in October 2013 and a post-construction survey in April 2014.

All work activities and deliverables will follow the March 2004 update of the BBCS Monitoring Standards for Beach Erosion Control Projects, Section 01200 (Borrow Site, Shoal and Other Bathymetric Surveying). (Document available on the web at: <http://www.dep.state.fl.us/beaches/publications/pdf/standard.pdf>.)

Report

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. The report shall specifically state the percentage of volume remaining and the project berm width or shoreline width remaining. Indicate the volume remaining both above and below the mean high water line. 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.

Submittals

One electronic copy of the monitoring report, and one electronic copy of the survey data shall be submitted to the Beaches, Inlets, and Ports Program in Tallahassee. When submitting any monitoring information to the Bureau, please include a transmittal cover letter clearly labeled with the following at

the top of each page: “This monitoring information is submitted in accordance with Item No. [XX] of the approved Monitoring Plan for Permit No. [XX] for the monitoring period [XX].