

**Activity:** Palm River Restoration Project Phase II, East McKay Bay (Implementation)

**Unique Identifier:** FL\_RESTORE\_004\_003\_Cat1

**Location:** Hillsborough County, Florida

**Type of Activity:** Implementation

**FPL Category:** 1 – Funding Approved

**Cost Estimate:** \$856,430

**Responsible Council Member:** State of Florida

**Partnering Council Member(s):** N/A

**Originally submitted by:** The State of Florida as a component within the proposal “Tampa Bay Watershed Restoration”

**Executive Summary:** The project consists of extensive habitat restoration, water quality improvement, and mitigation of erosion along the Palm River at the mouth of McKay Bay. It focuses on improving water quality and enhancing upland and wetland areas on 53 acres of Southwest Florida Water Management District land. It will remove exotic vegetation on two parcels, create and enhance wetlands, and build three stormwater management areas to provide water quality treatment for 436 acres of residential, commercial and industrial developed land.

**PROJECT DESCRIPTION:** The project consists of the following.

**Specific Actions/Activities:** Construction of three stormwater ponds, exotic vegetation removal, native planting, monitoring, and perpetual maintenance of exotic species and the culverts/stormwater ponds by the Southwest Florida Water Management District.

**Deliverables:** Deliverables associated with this project include the construction of three stormwater ponds totaling 4.5 acres, creation of juvenile fisheries habitat, restoration of approximately eight acres of salt marsh and 32 acres of coastal uplands, and monitoring data.

**Ecological Benefits/Outcomes and Metrics:** Ecological benefits of this project would include the significant reduction of pollutants in stormwater runoff entering McKay Bay and, ultimately, Tampa Bay. The project is designed to remove an estimated 517 pounds of nitrogen annually. It would also reduce erosion, remove exotics and replant native vegetation to restore approximately eight acres of salt marsh and 32 acres of coastal uplands. The project would also benefit wildlife in the area. McKay Bay has been identified as highly important bird habitat, supporting many resident species as well as large numbers of migratory waterfowl and shorebirds that use the embayment as a feeding and resting site for several months each year.

The Palm River Restoration Project Phase II, East McKay Bay restoration project would be monitored and maintained for a two-year period after restoration by the construction contractor. Metrics would include exotic species to be maintained at <5% in the restored area

and a plant survival rate of  $\geq 90\%$ . The Southwest Florida Water Management District would continue maintenance of the exotic species and culvers and stormwater ponds in perpetuity.

**Leveraging and Co-Funding:**

- **Co-funding:** Local match totaling approximately \$500,000 provided by the Southwest Florida Water Management District and the Florida Department of Transportation.

**Duration of Activity:** Implementation will be completed approximately 18 months from the time funds are received. Post-construction monitoring will occur for at least two years.

**Life of Activity:** Once the project is constructed and the vegetation becomes established it is anticipated that the project's ecological benefits would be sustainable over the long-term, at least twenty-five years, with minimal maintenance.

**RESPONSE TO SCIENCE REVIEWS:**

**Comment:** Three science reviews were conducted as part of the Gulf Coast Ecosystem Council submission evaluation. Most of the remarks received in regard to the Tampa Bay Watershed proposal were favorable. Some comments specific to the Palm River Restoration Project Phase II, East McKay Bay pertained to the project's contributions to the big picture of Tampa Bay and watershed restoration, effectiveness of stormwater ponds in water quality treatment, and the methods and measures to evaluate success of the activities, and the number of implementation method literature. Another comment received was on the risks and uncertainties such as the effects of climate change, altered water flow and sediment supply, sea level rise, and salt water intrusion on shoreline restoration and efficiency of stormwater treatment.

**Response:** Tampa Bay has extensive areas of impaired waterbodies (those not meeting water quality standards), which have adversely affected coastal habitats. The State of Florida has established specific water quality restoration targets for Tampa Bay. This project would leverage the extensive restoration work already underway to meet these goals, particularly through the Tampa Bay Estuary Program ([www.tbep.org/](http://www.tbep.org/)) and the Southwest Florida Water Management District's (SWFWMD) Surface Water Improvement and Management (SWIM) Program for Tampa Bay ([www.swfwmd.state.fl.us/projects/swim/tampa\\_bay/](http://www.swfwmd.state.fl.us/projects/swim/tampa_bay/)) which the Palm River Restoration Project is listed as a priority project.

The 1987 Surface Water Improvement and Management (SWIM) Act was created to protect, restore and maintain Florida's highly threatened surface water bodies. As part of the SWIM Program the SWFWMD identifies and implements water quality and habitat restoration projects. The SWFWMD Tampa Bay SWIM Plan's (Plan's) projects focus on reducing the pollution in stormwater runoff by reducing excess nutrients and other pollutants that affect water quality. As part of the Plan, challenges are identified, strategies and coordination with other agencies are developed, and success indicators are established. Additionally, a comprehensive literature review was conducted, which included 67 publications, as part of the Plan development.

To date the SWFWMD and its partners have implemented projects that provide water quality treatment of more than 140,000 acres of watershed and have restored over 11,000 acres of freshwater, estuarine, and upland habitat. This extensive knowledge and experience with on the ground restoration provides the assurance that the objectives of the Palm River Restoration project would be met and that the appropriate measures to evaluate the success of the project would be applied (see Ecological Benefits/Outcomes and Metrics section).

The Palm River Restoration Project Phase II project would be maintained by the SWFWMD, the entity responsible for flood protection, management of water supply, protection of water quality, and preservation of natural systems that serve water related functions, therefore a certain level of risk and uncertainty associated with the effects of climate change, altered water flow and sediment supply, sea level rise, and salt water intrusion were already addressed when the project was designed. As with all SWIM projects, adaptive management would be implemented to address any future changes to the project that may occur.

#### **ENVIRONMENTAL COMPLIANCE:**

The Council has adopted the 2012, U.S. Army Corps of Engineers (USACE) Environmental Assessment (EA) prepared for Clean Water Act Section 404 nationwide permit 27 (NWP 27) for aquatic habitat restoration, establishment and enhancement activities. The Council is adopting this EA in order to address requirements of the National Environmental Policy Act (NEPA) (42 U.S.C. §§ 4321 et seq.) associated with the approval of funding for Palm River Restoration Project Phase II, East McKay Bay. The Council has reviewed this EA and associated documents, including a July 31, 2014, USACE memorandum for the record documenting use of NWP 27 for Palm River and a February 22, 2017, U.S. Fish and Wildlife Service letter to the Council regarding compliance with the Endangered Species Act (ESA). In addition to ESA, the EA and associated documents address compliance with other Federal environmental laws, including the Magnuson-Stevens Fishery Conservation and Management Act, the National Historic Preservation Act (NHPA), and others. The Council has determined that the subject EA and associated compliance documents address the environmental effects of the activity to be funded. In addition to NEPA, the Council has an independent responsibility to comply with all other applicable Federal laws. To ensure compliance with ESA, NHPA, and other applicable laws, the Council will require that the sponsor of this project adhere to all applicable permit conditions listed in NWP 27 and the associated compliance documentation. The aforementioned EA and associated environmental compliance documents can be found [here](#).