

Ecosystem Restoration Project Proposals
for consideration in the High Priority Projects List for Tampa Bay Region
2016

Contact Information (Name, email, phone number, organization): Peter A. Clark, President Tampa Bay Watch, Inc. 3000 Pinellas Bayway South Tierra Verde, FL 33715 pclark@tampabaywatch.org 727-867-8166, ext. 226	Date of Submittal:
Name of Project: McKay Bay Oyster Reef Creation Project	Rank (1 is highest):
Project Description: Tampa Bay Watch, in partnership with Port Tampa Bay and the Southwest Florida Water Management District, is seeking funding to support the establishment of a large scale oyster reef creation project to construct 16 acres of oyster shell reef along the eastern shoreline of McKay Bay. The support provided will be used to design, permit, construct and monitor a series of subtidal and intertidal oyster reefs similar in nature to existing natural oyster reef communities that will contribute to the health and the restoration of the Bay and support the goals of the interagency management plan that is currently in place for the area. McKay Bay is an ecologically important estuary located in the heart of a heavily industrialized area in the City of Tampa that has provided habitat to over 200 bird species and historically supported healthy fisheries. The bay has suffered from many years of developmental impacts, including dredge and fill construction, urbanized and industrial stormwater runoff, industrial contamination, and dredged material disposal. Based upon the need for coastal restoration in the McKay Bay system, the level of ongoing restoration activities in the area, the downstream benefits this project will have on water quality and habitat, and the diversity of program partners we anticipate that this will be a very successful effort to advance the restoration of Tampa Bay. Tampa Bay Watch is proposing a large scale oyster reef creation project to construct 16 acres of oyster shell reef along the eastern shoreline of McKay Bay (see Figure 1) in the area just offshore of the Southwest Florida Water Management District (SWFWMD) managed spoil disposal area. Early discussions focus around creating circular offshore hard bottom areas available for oyster settlement to create a series of natural oyster reefs similar in nature to existing natural subtidal oyster reef communities. Other restored oyster reefs in McKay Bay have shown good recruitment and survival with up to >25% coverage and 70% survival during informal monitoring suggesting that this area is a suitable area for a large scale oyster enhancement project. Construction will require barge deployment of mined oyster shell, native limestone rubble or other appropriate hard material available for large scale oyster reef	

development. Turbidity curtains will be required to avoid siltation and to ensure direct placement of the material at permitted locations. MacKay Bay is adjacent to the Port of Tampa facilitating the use of shallow water barges for transferring oyster hard bottom material to the sites.

The proposed project location is an ideal candidate for a large scale oyster restoration project as it is adjacent to an area that is undergoing a number of active habitat and water quality restoration activities. Ongoing restoration and protection activities include the filling of subtidal borrow pits (SWFWMD and the Tampa Port Authority), shoreline grading and salt marsh restoration (SWFWMD), watershed stormwater treatment projects (City of Tampa), and benthic sediment enhancement projects (Tampa Bay Estuary Program, Environmental Protection Commission of Hillsborough County).

Project Location:

McKay Bay is located in the upper reaches of Hillsborough Bay in the City of Tampa (map is attached).

Responsible Party:

Tampa Bay Watch, Inc.

Partners:

Port Tampa Bay, Southwest Florida Water Management District

Estimated Project Cost:

\$1,740,000

Dollars needed:

\$1,740,000

Expected match and source:

TBD

Start Year:

Site design and permitting -- Spring 2017
Construction – Spring 2018

Completion Year:

Construction completion – Spring 2019
Monitoring – Spring 2021

Status of Project Design and Permitting:

Tampa Bay Watch has completed the initial site analysis to develop a detailed conceptual plan and scope of work for this project. Initial site inspections characterize the specific area and identify general opportunities and constraints for large scale oyster reef construction. Information will be used to develop the conceptual plan for review by program partners and our review committee.

Using the final project design as the foundation, Tampa Bay Watch will complete and submit all necessary permit applications to carry out the project. Permits will be required from Port Tampa Bay (Environmental Protection Commission of Hillsborough County), Florida Department of Environmental Protection, and the U.S. Army Corps of Engineers.

Goals and Florida Priorities addressed, from “Goals and Florida Priorities” document:

Primary Goal: Restore and Conserve Habitat

Primary Florida Priority: Protect, stabilize and restore salt marsh, seagrass, oyster, coral reef, beach, dune mangrove and other important marine bottom habitat in strategic locations where

human-made and storm impacts have occurred or are likely to occur in the future.

Secondary Goal (if appropriate): Replenish and Protect Living Coastal and Marine Resources

Secondary Florida Priority: Develop large-scale strategies for seagrass, oyster and coral reef restoration for marine species propagation and enhancement.

Environmental Results expected: (i.e, acres and types of habitat restored or protected; lbs. of pollutant reduced; etc):

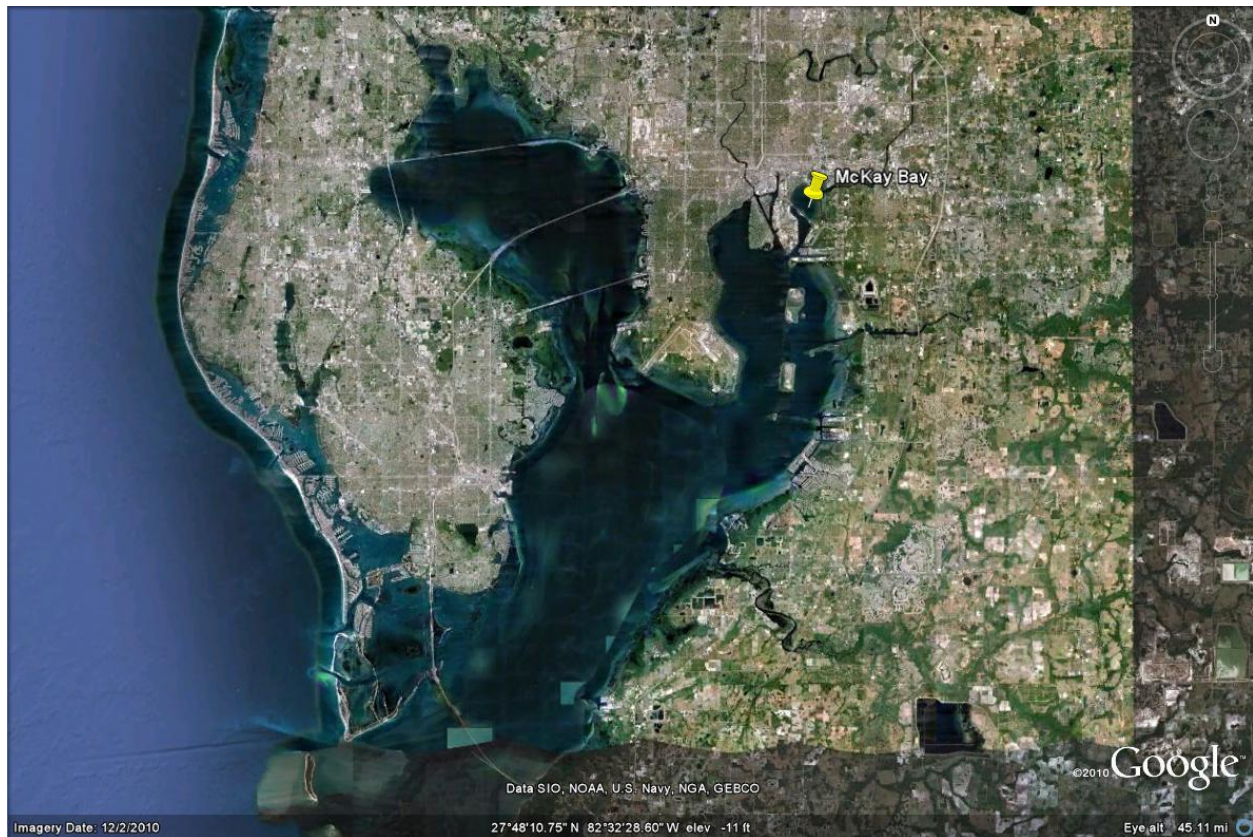
The large scale oyster reef creation project will construct 16 acres of oyster shell reef along the eastern shoreline of McKay Bay. Other restored oyster reefs in McKay Bay have shown good recruitment and survival with up to >25% coverage and 70% survival during informal monitoring before project completion. The success rate for recruitment and supporting of live oysters in McKay bay seems to compare quite well to other area around the Bay. In some cases in past projects where conditions seem ideal, it has taken up to 2 years post-construction for a reef to reach >25% coverage and 70% survival.

Additional Benefits:

The creation of a large scale oyster reef at the “headwaters” of Tampa Bay will result in improvements to all water systems downstream. Water quality improvements will also benefit water draining down the Palm River and the Tampa Bypass Canal, and the proposed reef will provide habitat for small marine organisms and create foraging areas and sanctuary for many species of fish and wildlife.

Add any photos or maps or other materials that explain project

Location of McKay Bay at the northern end of Tampa Bay.



Conceptual design of the 16 acre oyster reef creation project and specific location in McKay Bay, Florida.



Above, enlarged view