Oyster Reef for Shoreline Stabilization

Partners

U.S. Air Force

Tampa Baywatch

US Fish & Wildlife Service

National Oceanic and Atmospheric Administration

Southeast Aquatic Resources Partnership

Location

MacDill Air Force Base, FL

Watershed

Tampa Bay

For More Information:

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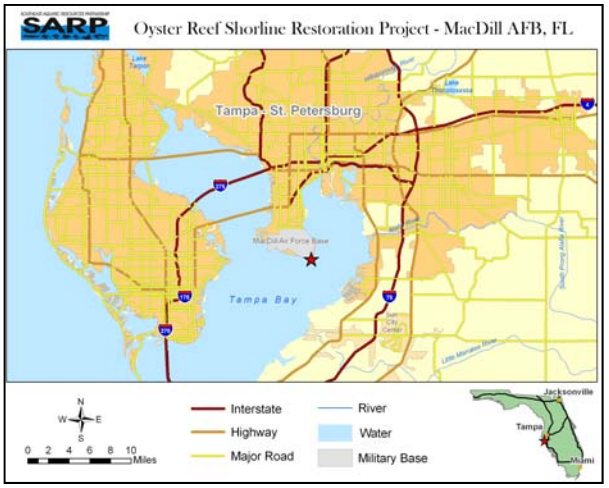


Introduction:

Over the past decade, the eastern shoreline of MacDill AFB has eroded, resulting in loss of native plant species such as black mangroves, palms, and 100-year-old live oaks. A five-phase project to stabilize the shoreline is creating a series of oyster reefs along undeveloped shoreline. The resultant oyster and mussel colonies will filter water and provide valuable habitat for fish and other aquatic resources. The reduced wave energy and accumulated sediment will encourage growth of native marsh grasses and mangroves, which will further stabilize the shoreline and improve the habitat.

Description of Site:

- About 0.5 miles of undeveloped shoreline at the southeast tip of the Interbay Peninsula.

Oyster domes accumulate sediment and attract spat.

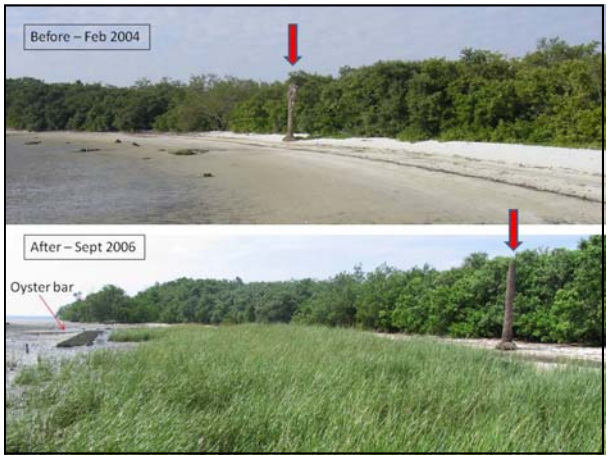
Problem:

- Wave action steadily eroded the shoreline and prevented sediment accumulation.
- Marsh grasses and mangroves cannot grow without protection and sediment.

Strategy:

- Oyster shell and concrete oyster domes were installed along the shoreline in five phases, beginning in 2004. The last phase is currently underway. The result is a complex of oyster bars and oyster domes developing into oyster reefs.
- Volunteers installed the oyster domes and shell bags during community reef building events, stimulating community interest in shoreline protection.
- Students from local middle schools and high schools plant marsh grasses as part of the Bay Grasses for Classes program, providing a living classroom experience.

Phase 1 is already showing positive results. In total, more than 2,400 concrete oyster domes, 36 tons of oyster shells, and 1,700 oyster shell bags are creating over 3,000 feet of oyster reef.



Phase 1, before and after reef establishment.

SOUTHEAST AQUATIC RESOURCES PARTNERSHIP
SARP