

## **ACTION PLAN** *Habitat Restoration Enhancement and Monitoring*

### **HE-5**

#### **Expand Reef Habitats**

##### **ACTION:**

Increase fisheries and benthic habitat in Lake Worth Lagoon (LWL) through additional artificial reefs while enhancing impacted areas.

##### **BACKGROUND:**

All the steps highlighted in the 2008 HE-5 AP have been successfully implemented. Since 2008, six projects were constructed to add over 4.5 acres of new artificial reef habitat in LWL. These reefs provide nursery habitat and conduits for fisheries movement and shelter throughout the lagoon. Additionally, these habitats provide recreational opportunities for fishermen, snorkelers and divers in protected accessible conditions, compared to the offshore reefs. The new LWL artificial reefs are located at: Peanut Island, Riviera Beach, Everglades Island, Phil Foster and Boynton Beach/Ocean Ridge.

Artificial Reef monitoring continues at representative sites in the lagoon: Sugar Sands Reef, Rybovich Reef and the Blue Heron Bridge Reef, for which details are provided in Chapter 2.

##### **STRATEGY:**

- STEP 1 Identify additional locations, especially artificially-deepened areas for artificial reef placement in LWL.  
*Potential Partners: ERM, HBOI/FAU*
- STEP 2 Develop, permit and construct new artificial reefs.  
*Potential Partners: ERM*
- STEP 3 Continue and expand monitoring of existing and new artificial reefs.  
*Potential Partners: ERM, PBC Reef Research Team, FWC, Environmental Education Centers*

##### **SCHEDULE:**

The placement of artificial reef materials for habitat enhancement in the Lagoon is an on-going endeavor.

##### **COST:**

Construction of 1 acre/year at \$ 200,000/year, plus staff time involved in project design and management.

**EXPECTED BENEFITS:**

Placement of artificial reef material promotes settlement of epifaunal organisms which in turn promotes fisheries nurseries within the Lagoon that also benefits nearby ocean reef systems. Existing Lagoon artificial reefs can have as much as 80% of fish on the reef representing the juvenile class and are important developmental refuges for fish that have value to the commercial and recreational fisheries. These artificial reefs add high quality complex habitat the lagoon and they support a wide variety of species.

**MONITORING ENVIRONMENTAL RESPONSES:**

Regular monitoring already occurs with the Sugar Sands Ledges and Rybovich Reef using the Reef Research Team. ERM will be monitoring the other artificial reefs within the Lagoon.

**REGULATORY NEEDS:**

Permits for construction are required by FDEP or SFWMD and USACE. Legislation to streamline the permitting process, for Government sponsored limited restoration or enhancement projects (including living shorelines), is currently being evaluated for inclusion in the Statewide Environmental Resource Permit rule as a Restoration General Permit. Some of the habitat restoration/enhancement projects may qualify for the USACE Nationwide Permit #27. Steps are being considered by USACE to streamline the permitting for "Living Shoreline" shoreline stabilization projects.

**FUNDING:**

Funding is available through the County Vessel Registration Fee and additional funding will be sought.

**POTENTIAL PARTNERS AND FUNDING SOURCES\*:**

*ERM, FWC, Environmental Education Centers, FIND, FDEP, WPB Fishing Club, dive shops, HBOI/FAU*

\*Listed Agencies have not committed funds and are subject to Agencies' budget approvals