Effective Monitoring in Restoration Management
Alcoa - Lavaca Bay, Tx

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•Lavaca Bay Restoration Projects

- Ecological

  729 acre property transfer

  11 acre oyster reef construction

  70 acre esturine marsh construction

- Recreational

  Fishing pier and boat ramp construction and/or restoration

Restoration Implementation Plans

- Introduction
- Project Implementation
- Performance Monitoring
- Corrective Actions
- Record Keeping and Reporting
- Final Certification

Performance Monitoring

Performance criteria defines short-term milestones that, if met, will provide reasonable assurance of project success in the long term.

Monitoring provides information necessary to determine whether the project is trending toward these milestones or whether corrective action may be appropriate

Performance Criteria
11 Acre Lavaca Bay Oyster Reef

- a. Presence of suitable solid reef base with a surface elevation that averages 12 inches higher than surrounding bay bottom.

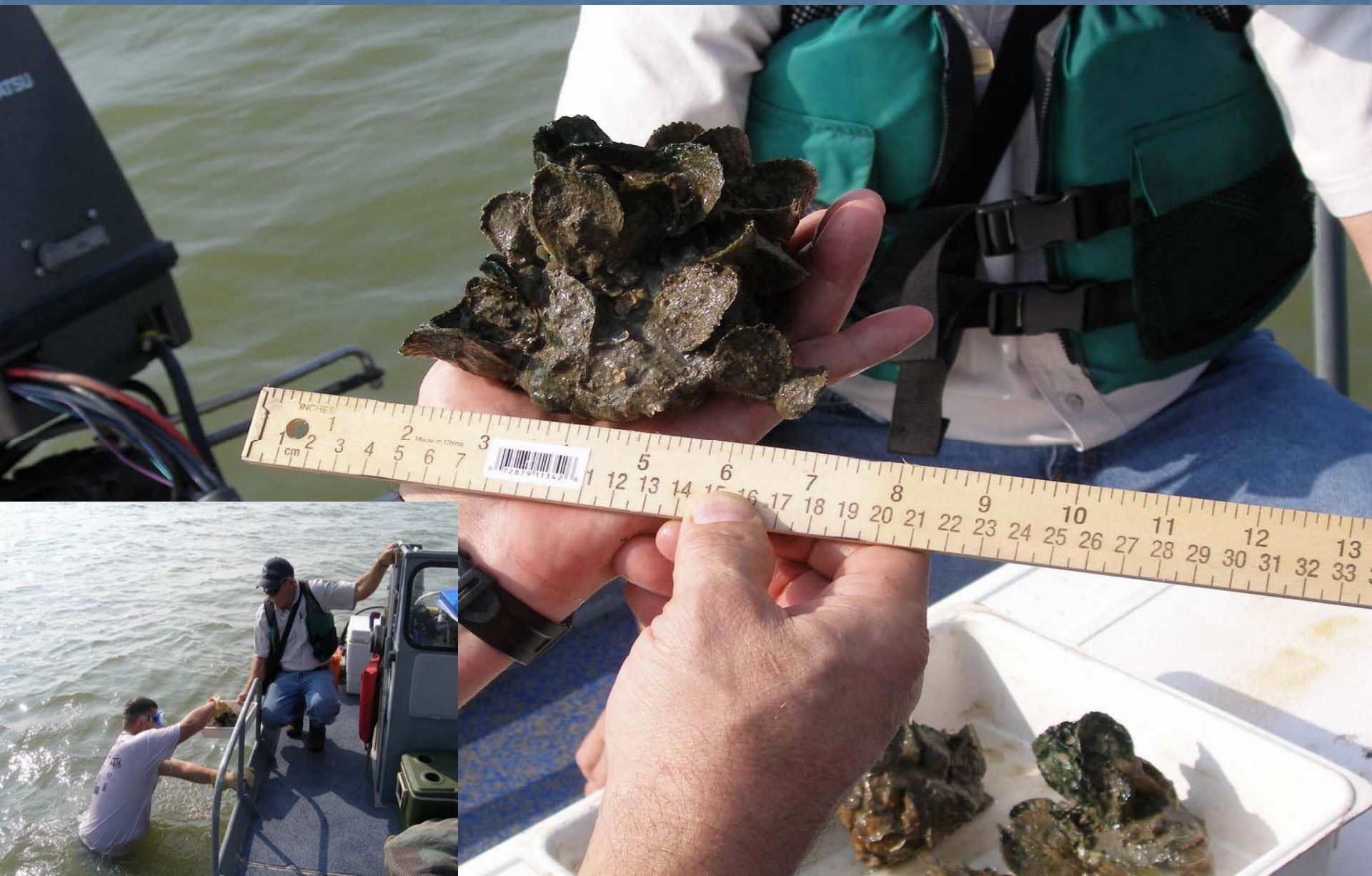
- b. All reef segments combined, not counting water between segments, will be 10.9 acres

- c. Evidence of sessile mollusk colonization on the constructed reef within 30 months post-construction

11 Acre Oyster Reef Construction

April 2005

Oyster Reef Monitoring Fall 2005



Myrtle Foester Whitmire 70 Acre Marsh Construction
5-16-06

Performance Criteria
70 acre Myrtle Foester Whitmire Marsh

- a. Phase 1. 75% emergent vegetation foliar coverage in both the onshore marsh and 75% foliar coverage in the offshore marsh
- b. Phase 2. Maintain 75% foilar coverage in both onshore and offshore marsh for 2 consecutive years without major corrective action

8-27-07

2007

2007

2008

Phase 1 Milestone Monitoring

- Foliar coverage (quantitative)
- Growth of invasive vegetation (quantitative)
- Breakwater integrity (qualitative)
- Channel Integrity (qualitative)
- Wildlife utilization (qualitative)
- Size of emergent marsh (aerial photograph)
- Aerial photograph

Phase 1 Milestone Monitoring

12-02-08

http://www.fws.gov/southwest/es/contaminants/nrdar/site/information/texas/alcoa.pdf