



HALF MOON REEF

Oyster Habitat Restoration Project

- ❖ Historic Reef – Matagorda Bay
- ❖ Estuary Habitat Restoration Program
 - Estuary Restoration Act of 2000 (33 USC 2901)
 - Project Partnership Agreement (PPA)
 - TNC as Non-Federal Sponsor
- ❖ Project Details
 - 12 Acres – Recycled Concrete
 - Constructed March-April 2014
 - \$1.6M Project Cost (65% USACE, 35% TNC)
 - USACE Construction
 - TNC PED & Post-Construction OMRR&R
 - Results: Live Oysters > Market Size (3”)



❖ Perpetuity Reqs Not Appropriate

- Success dependent on natural processes
- Structure becomes a natural resource
- ERA does not require perpetuity
- Other federal programs have defined term

❖ OMRR&R – Hands Off Approach

- Disturbance can harm
- Need specific parameters to determine when restoration achieved

❖ LERRs – State Submerged Lands

- Federal-state jurisdictional issues
- State may be limited on permanent conveyance
- DNR authority for natural oyster reefs



❖ Self-Sustainability Criteria

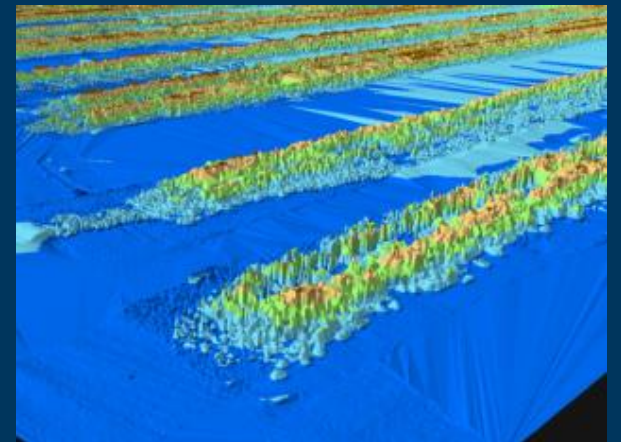
- Structural: height + stability
- Ecological: recruitment + diversity
- Monitoring determines & informs

❖ Adaptive Management

- AM + monitoring guides OMRR&R
- Minimal disturbance – let nature work
- Once criteria met, little role for OMRR&R
- In some cases, project may not be viable

❖ Support of State Authorities

- TGLO submerged lands lease
- TPWD harvest restrictions



❖ Dependent on Private Funds

- No public finance (ex. taxes, bonds)
- Restrictions on federal contributions
- No mitigation credits

❖ Limits on NFS Contribution

- Pre-PPA costs
- OMRR&R not included
- Donated materials

❖ Cost Uncertainties

- Cover excess total project costs
- Limits on changes in price levels
- OMRR&R – open ended, provided after construction
- Future LERRs



❖ No Condemnation Authority

- LERRs acquisition
- Right of USACE entry

❖ No Regulatory Powers

- Prevention of obstructions & encroachments
- Enforcement of natural resource regs

❖ No Gov. Immunity

- Broad hold harmless
- NFS as CERCLA operator



Getting Beyond “Aw Shucks”

- Mutual support & flexibility at project level critical (ex. PCT)
- Determine expectations in advance (ex. PMP, OMRR&R)
- Effectively engage exec. management & stakeholders
- Long term – improve and refine for natural infrastructure projects (ex. WRDA changes)

