Enhancing Oyster Habitat in Galveston Bay at San Leon Reef

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Project Info & Background

- Funded by USACE & Port of Houston
- Mitigation project for Bayport Bend Easing and additional bend easing along Houston Ship Channel to create oyster reef habitat
- Hurricane Ike Impacts to San Leon:
  - 6-inches of silt deposition over reef
- 60% of oyster reefs in Galveston Bay impacted by Hurricane Ike-induced sedimentation
Location

Houston

Project Location

Gulf of Mexico
Location

Project Location

Bayport Container Terminal

Proposed Bayport Bend-Easing

Houston Ship Channel

Taylor Lake Village

Seabrook

Kemah

Bacliff

San Leon

Red Fish Island
Location

Bayport Flare

Galveston Bay

San Leon

Reef Pad A: 10.55 AC
Reef Pad B: 10.55 AC
Reef Pad C: 9.0 AC
Reef Pad Material Placement Method

- Gravel placed using high-pressured water hoses
- Water hoses transport gravel from deck barges to bay bottom
- 1-3” gravel for reef pad material
- Each deck barge contained ~350 tons of gravel
Typical Section - Reef Pad

Water Depth = 8 to 10'

Bay Mudline

Reef Pad

1” Gravel

0.5’ (min.)

Settlement = 9” (approx.)
Reef Pad Material Placement (Video)
Placed Reef Pad Material

Final Hydrographic Survey

*Courtesy of Quality First Marine
Project Summary

- ~43,500 CY of gravel placed for oyster cultch habitat over a 30 acre footprint
- Construction funding ~ $3 million
- Construction completed in February 2018 (construction duration ~ 3.5 months)
- Contractor: Quality First Marine
QUESTIONS?