



committed to our coast

Presentation Overview

General Project Info

Project Goals & Design Determination

Project Milestones & Completion Dates

Imperatives (Lessons Affirmed)

Construction Facts

Project Vicinity



General Project Info

- Project authorized by State, utilizing 07 and 08 State Surplus Funds
- Project budget; \$45.8 million (State only)
- Shoreline erosion rate, ranges from 5 ft/yr to as much as 30 ft/yr
- Project will help protect State Highway 82/27 as well as 40,000 acres of freshwater wetlands, north of the highway. Also introduce quality sand into a sand starved system.
- Project is one of the six HPP (“highest priority projects”) projects for CPRA

Looking East, Pre-project (2008)



Pre-project, 2008



Project Goals & Design Determination

- Increase the barrier headland longevity by nourishing the beach profile with sand in a manner that will delay further shoreline retreat.
- The primary design feature for the project includes the re-establishment of the eroded headland through the creation of a continuous, substantial headland that will ensure the shoreline position in 20 years, is at or seaward of the current shoreline position.

Goals, Objectives, & Benefits

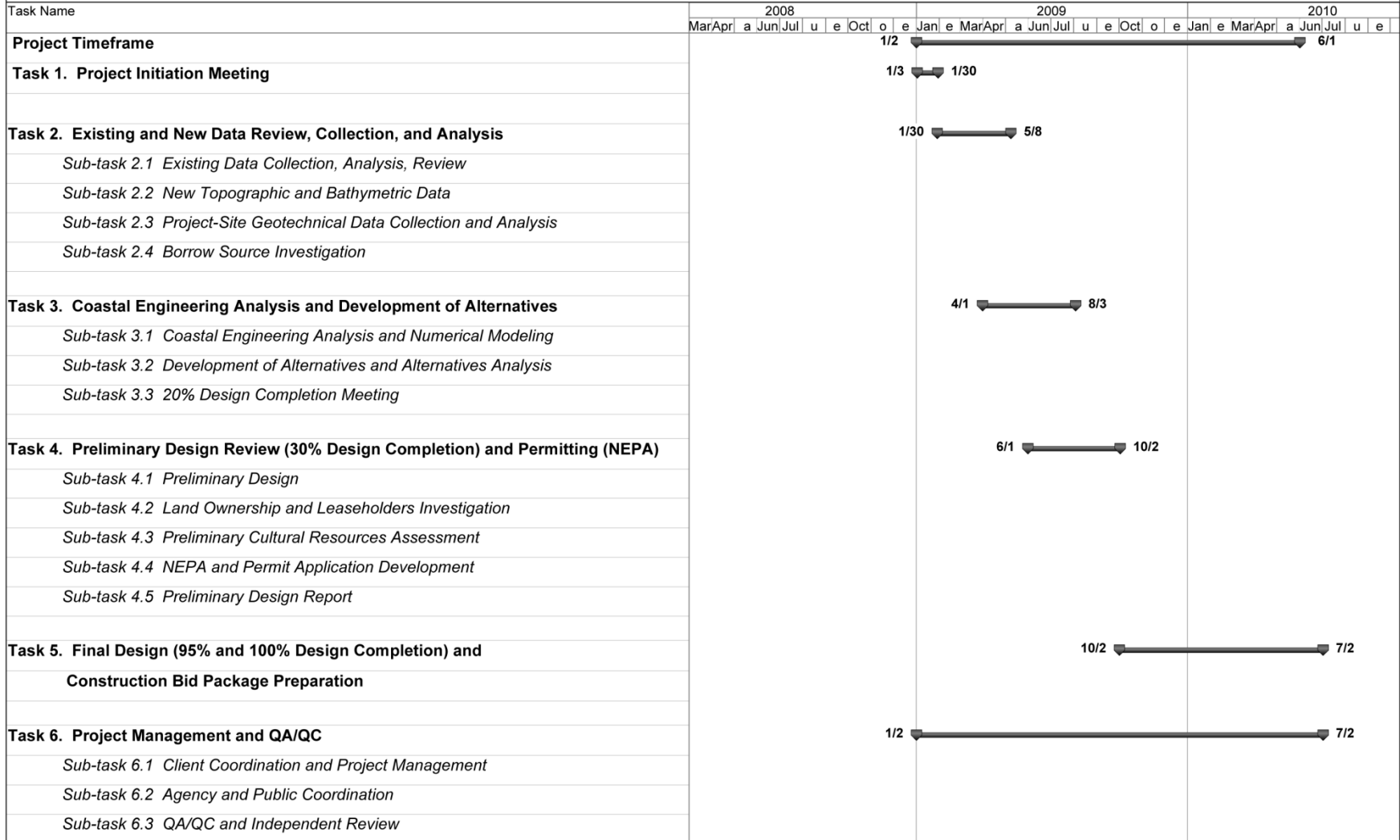


Preliminary Work Outline (2008)

- Task 1. Project Initiation Meeting
- Task 2. Existing and New Data Review, Collection, and Analysis
- Task 3. Coastal Engineering Analysis and Development of Alternatives
- Task 4. Preliminary Design Review (30% Design Completion) and Permitting (NEPA)
- Task 5. Final Design (95% and 100% Design completion) and Construction Bid Package Preparation
- Task 6. Project Management and QA/QC

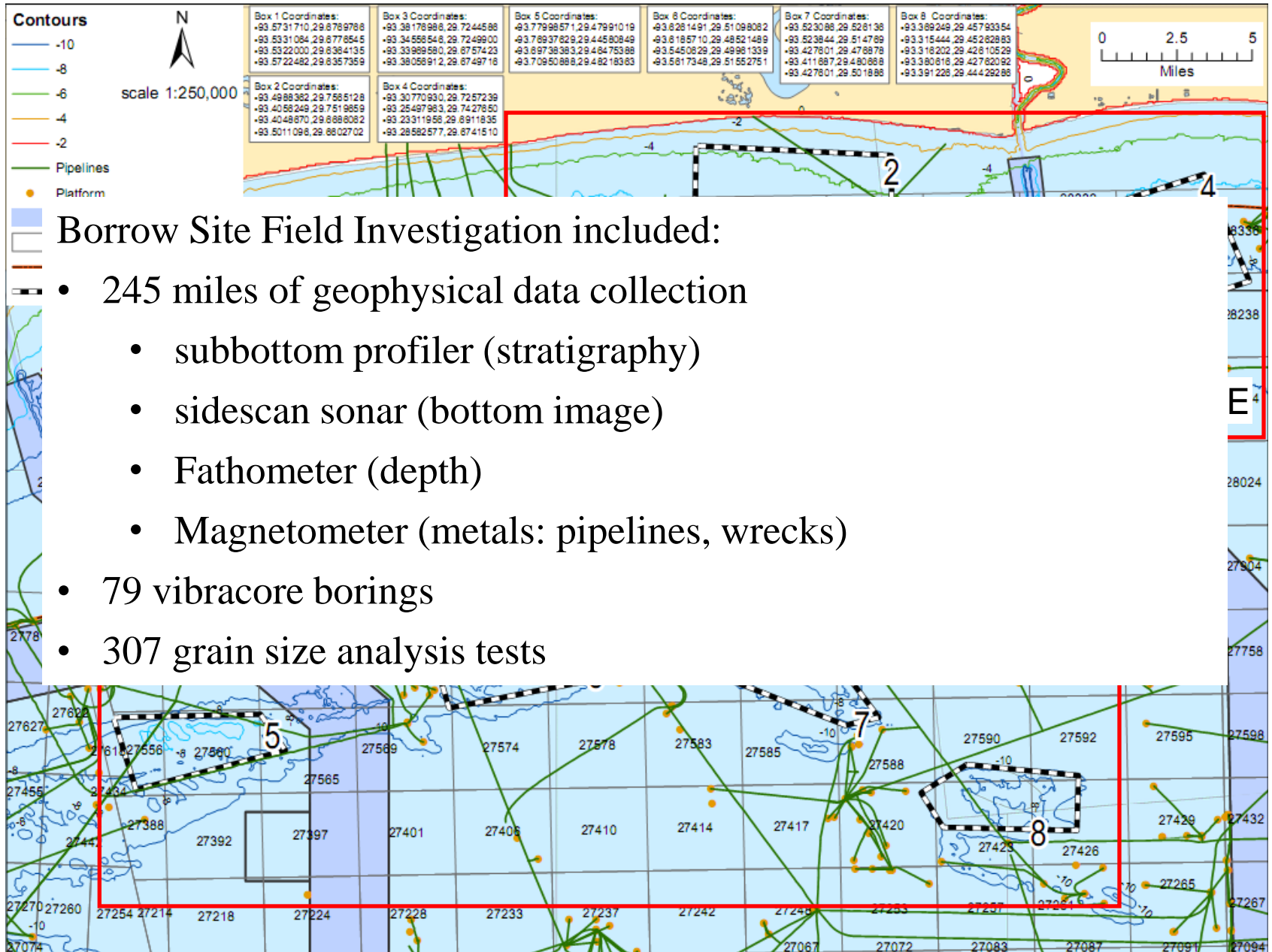
Timeline

Cameron Parish Shoreline Restoration (CS-33 SF)



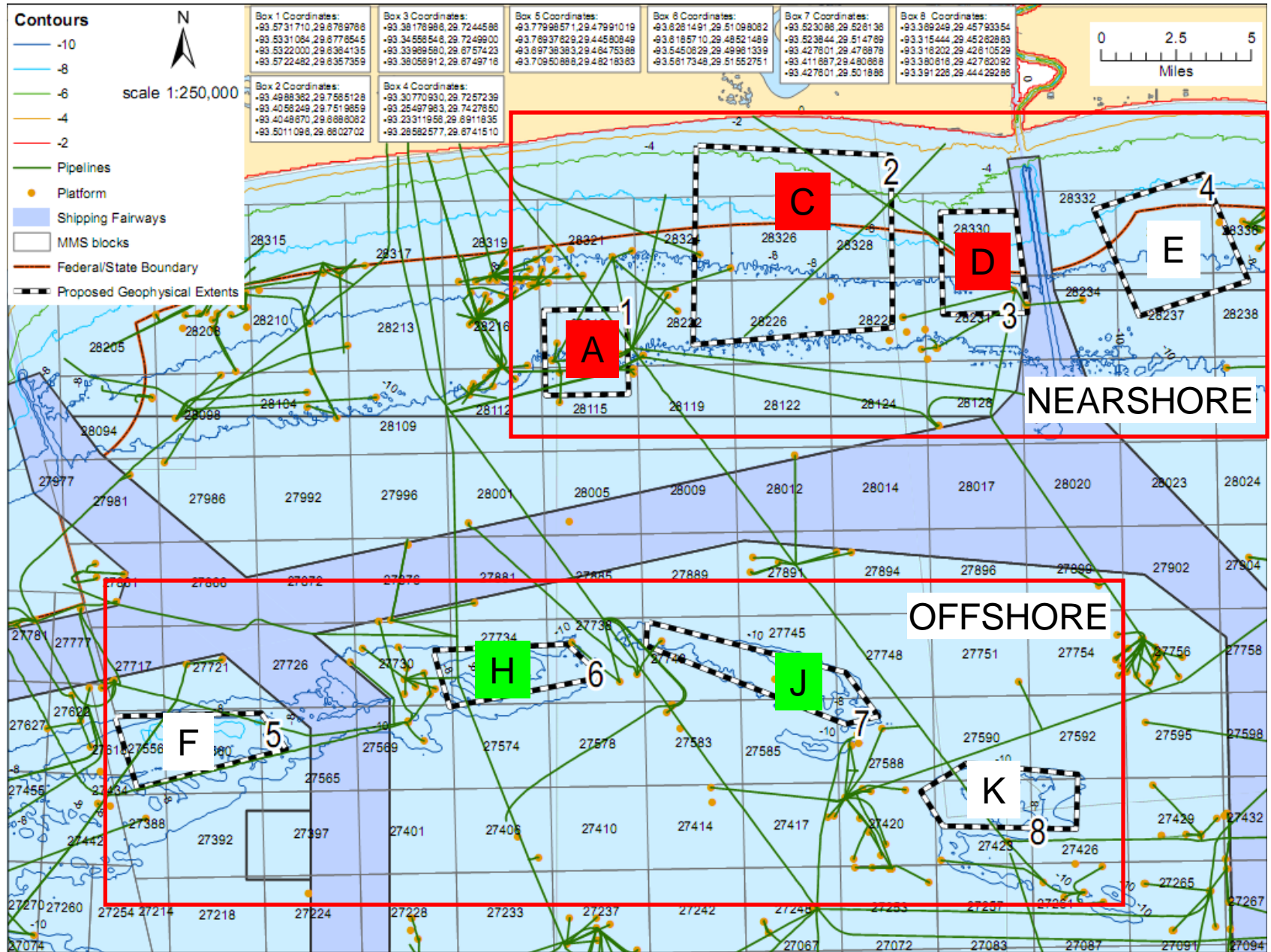
Data Investigation and Collection

Potential Borrow Sites



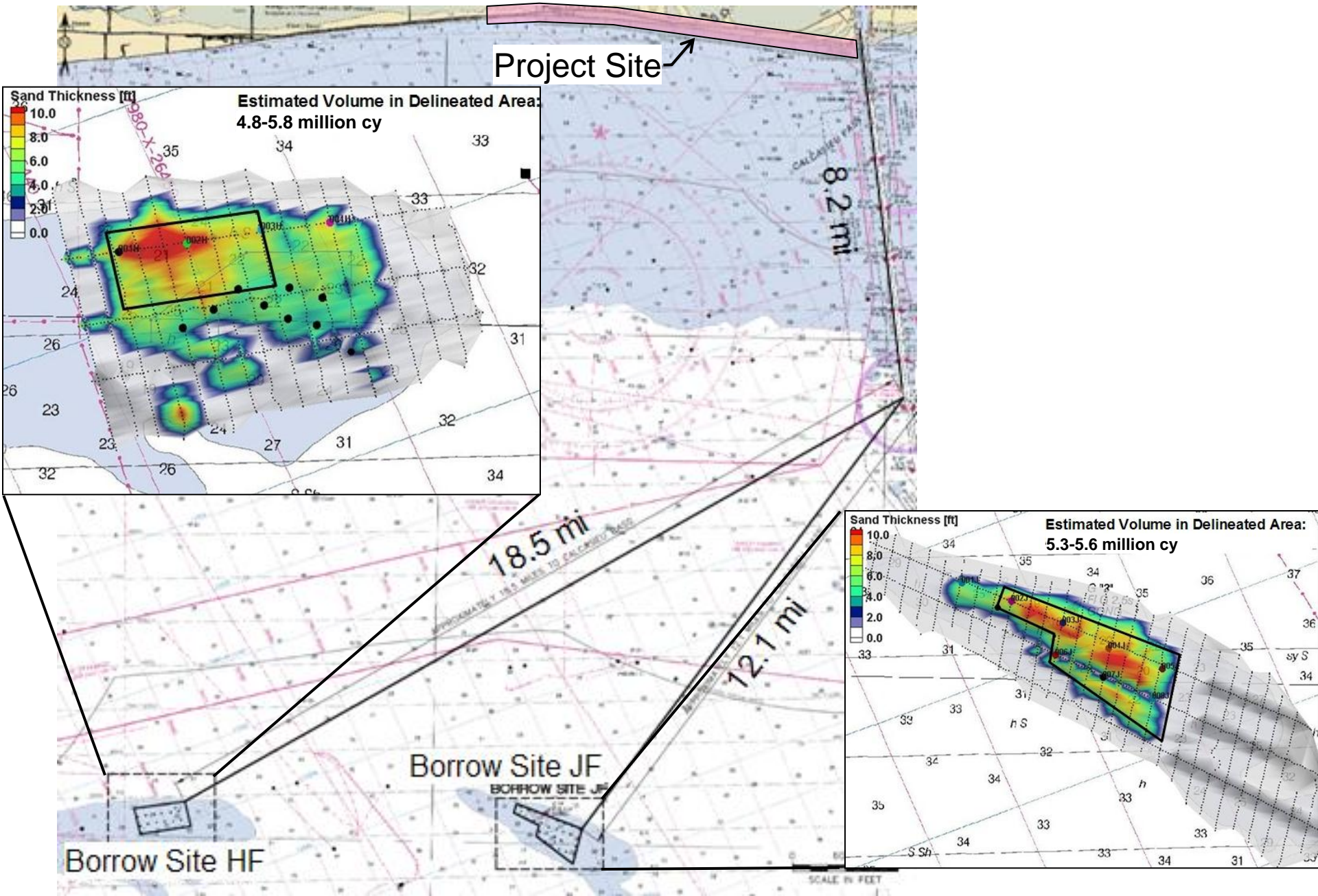
Data Investigation and Collection (Sand Search)

Potential Borrow Sites

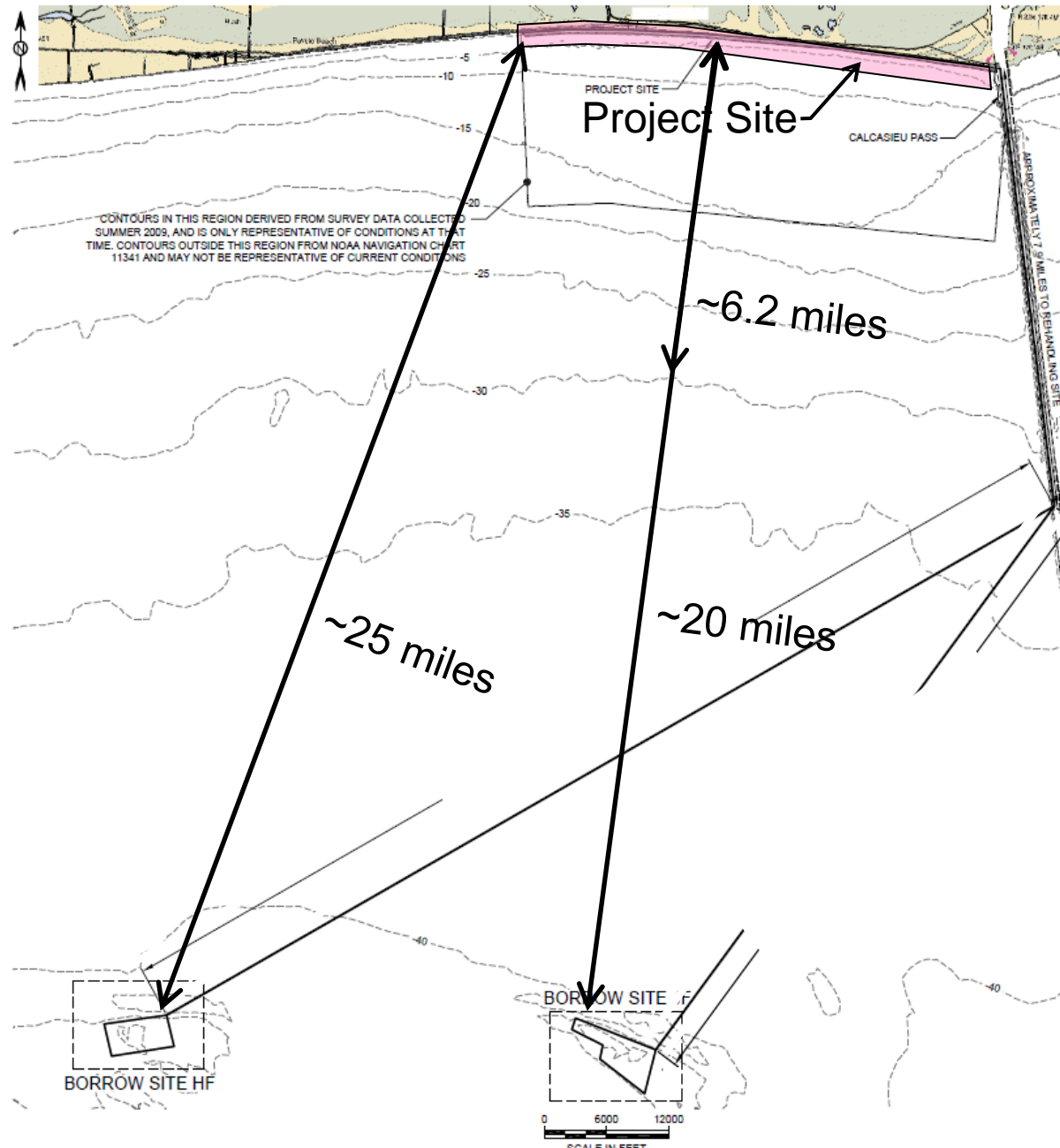


Data Investigation and Collection

Borrow Sites HF and JF (Sabine Banks Area)



Sediment Delivery Analysis



Five Delivery Options:

1. Dredge and Direct Pump
2. Offshore Pumpout
3. Offshore Rehandling
4. Calcasieu Pass Pumpout
5. Calcasieu Pass Rehandling

Engineering and Design

Calcasieu Pass Pumpout method



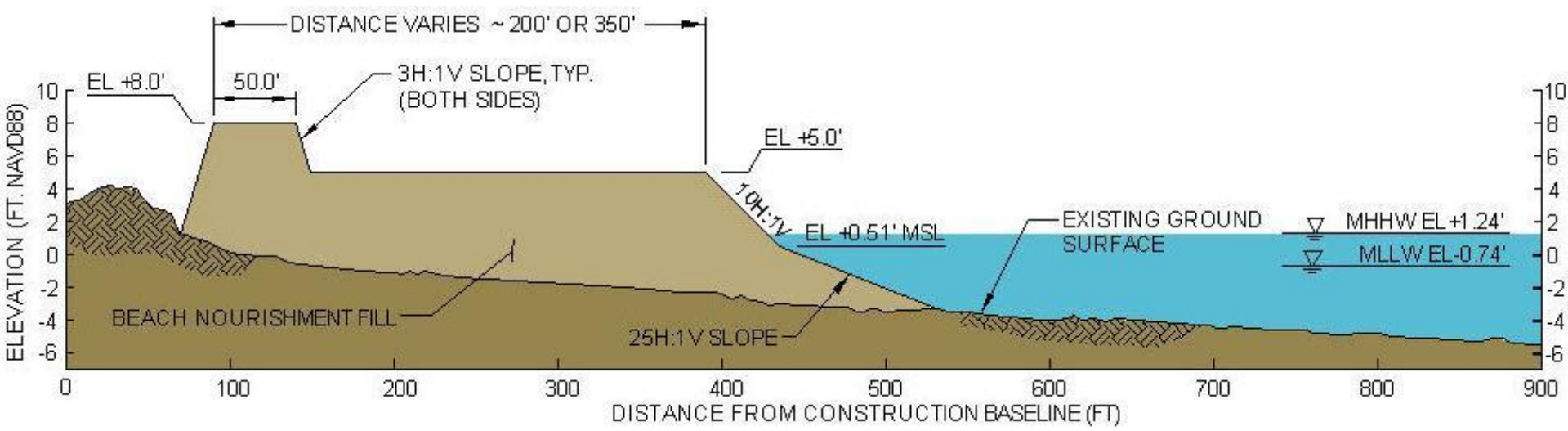
Calcasieu Pass Rehandling method



Conclusions at 20% Design

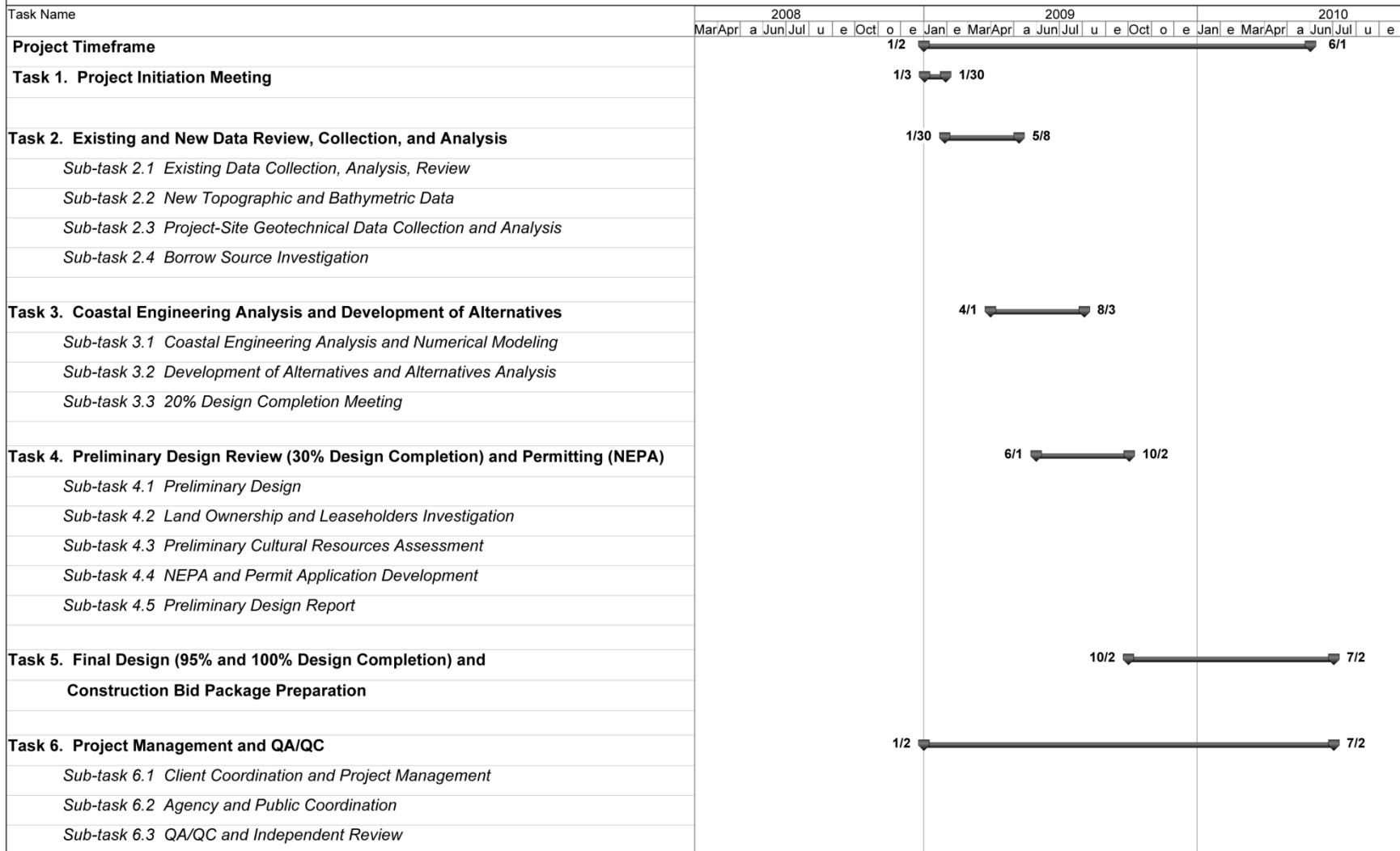
- A Beach Nourishment of ~3 million CY will meet the project goals
- Sand Borrow Sources have been identified of sufficient capacity and excellent quality to meet the requirements of the project
- Analysis and coordination with stakeholders shows that Rehandling or Pumpout in Calcasieu Pass, are the two Sediment Delivery options that are available and within budget

Beach Plan View & Typical Template



Timeline

Cameron Parish Shoreline Restoration (CS-33 SF)



Project Milestones & Completion Dates (5.5 Yrs.)

- October, 2008...Kick-off Meeting
- July, 2009...Data Collection
- October, 2009...Coastal Engineering Analysis
- January, 2010...Alternatives Analysis
- February, 2010...20% Design
- February, 2010...Applied for Negotiation with MMS for NNA (sand lease)
- April, 2010...Deep Horizon Spill
- May, 2010...MMS Becomes BOEMRE
- April, 2011...30% Design
- May, 2011...JPA Submitted
- March, 2012...Federal Permit (State, 8/2011)
- April, 2012...Final BO (Biological Opinion) Concerning Turtle Takes from NMFS

Project Milestones & Completion Dates (5.5 Yrs.)

- May, 2012...FONSI from BOEM
- May, 2012...Final landowner signatures; over 40 tracts, w/ multiple landowners; >\$1 million
- August, 2012...NNA from BOEM (2.5 yrs.)
- August, 2012...Final design and bid package
- August/September...Advertise for bids
- Construction Budget...\$40,495,691 (Low Bidder...Weeks Marine, Inc.)
- December, 2012...Contract awarded
- 12-18-12...NTP issued
- 2-15-13 to 2-15-14...Contract time period
- 2-13-14...Dredging completed
- 3-21-14...Scheduled de-mob completion

Imperatives (Lessons Affirmed)

- 1) Project Team Must Communicate & Coordinate with Locals and Stakeholders, Early, Often, & Effectively
- 2) Project Team Must Be Nimble and Ready to Enact a Plan “B, C, or D, etc.”

Coordination undertaken by CPRA team with:

Dredging Contractors
USACE – Engineering, Calcasieu Pass O&M, and Regulatory
Louisiana Department of Natural Resources
Louisiana Department of Wildlife and Fisheries
Port of Lake Charles
Lake Charles Pilot’s Association
West Cameron Port Commission
Cameron Parish Government
Local & Non-local Property Owners
Local Fishing Interests
US Coast Guard
Calcasieu River Waterway Navigation Safety Sub-Committee
MMS/BOEMRE/BOEM (USFW, NMFS)
Regulatory Agencies (OCM, LDEQ, SHPO)

Construction Facts

- Only 2 bids received, both exceeded available budget
- Contract Quantity...reduced to 1.93 Million cubic yards (in place) to accommodate available budget
- Only Base Bid Awarded...no dune, just beach fill and fencing for approx. 5 miles
- 12-18-12...Contract signed with WMI
- 2-15-13...Contract Time Period Begun
- 8-19-13...Dredging Begun
- 2-13-14...Substantial completion on construction (end of dredging)

Construction Facts

WMI Dual Hopper Pumpout Delivery

- **7 to 8 Hopper Loads/day (~2500CY Load)**
- **~150 LF of beach fill advancement per day**
- **Booster on site (September) and deployed by December, 2013**



R.N. Weeks



B.E. Lindholm



R.N. Weeks being loaded with dredged sand while at sea over borrow site.



R.N. Weeks moored alongside booster pump at pump-out site on Calcasieu Channel



R.N. Weeks pumping the second load of sand onto the beach

Beach Template Progressing Eastward





R.N. Weeks moored and pumping. Discharge area is 2 miles away.



Slurry being discharged into template. Training dikes being employed on seaward edge of discharge zone.



Dozers working sand material being pumped into a 285 ft.-wide beach template



Active beach fill site with freshwater system in the background

Bidding and Construction

Beach Fill Progress





Active project site looking east toward Calcasieu Ship Channel (jetties visible in background). Vegetation line on landward edge of beach represents the pre-construction shoreline location.



Project site before (top) and after (bottom) project

February 13, 2014, Last Day of Pumping & Placement of Beach Fill...Looking East Toward Calcasieu Waterway Jetties



February 13, 2014, Last Day of Pumping & Placement of Beach Fill...Looking East Toward Calcasieu Waterway Jetties



Acknowledgements

- **Project Engineer: Rudy Simoneaux**
- **Landrights: VJ Marretta**
- **Permit/Environmental: Clayton Breland**
- **Construction Engineer: Darrell Pontiff**
- **BOEM: Mike Miner, Ken Ashworth**
- **Design Consultant: Coast & Harbor Engineering; Josh Carter, Hugo Bermudez, Vladimir Shepsis**
- **Weeks Marine Inc.: Brett Dupuis et al**

The End



