



# PORT FREEPORT, TX ENTRANCE & JETTY CHANNEL WIDENING 2015





## PROJECT DETAILS

- Widen channel 200' to North (50% width increase)
  - 3 miles of Entrance channel
  - 1 mile of Jetty Channel
- 3.1 million CY dredged
- Offshore ODMDS #1 primary disposal
- 120,000 CY BU disposal at Quintana Beach
- Predominantly firm-stiff clay, some sand & silt



## DREDGE EQUIPMENT

- 30" electric Cutter-suction dredge CALIFORNIA
  - Spider-barge to load scows
  - 8,000 CY dump scows
  - Towing and tending tugs
- Hopper dredge TERRAPIN ISLAND
  - 6,400 CY bin capacity



## DREDGE CALIFORNIA

- 10 MW electricity
- Connected to Freeport LNG electric infrastructure
- 15,000' submersible power cable
- Benefits
  - reduced air emissions compared to diesel
  - Quiet, less disturbance to nearby residential areas



## SPIDER BARGE

- Narrow jetty channel
  - Limited to one-side loading
  - Traffic coordination
  - Shallow outside channel limits
  - Close proximity to jetty



## BU DISPOSAL QUINTANA BEACH

- Beach nourishment / shore protection
- Discharge screened to alleviate rock on beach
- Targeted relatively small sand lens available in dredge cut
- Significant clay content
- Beachfill ops cut short, removed excessive clay from beach



## WIDENED INTO LAND CUT

- Inner jetty channel widened into land cut
- Excavated and side-cast upper slope material toward dredge California
- Protected wetland features in the vicinity
- Separated remnant rock debris from materials



## DREDGE TERRAPIN ISLAND

- Entrance channel dredging
- Sea turtle exclusion measures
  - Complicated by stiff clay materials
- 2 trawlers working at all times to relocate sea turtles to mitigate risk of takes
- Concerted disposal coordination between hopper dredge & dump SCOWS



# GREAT LAKES DREDGE & DOCK COMPANY, LLC

Steve Auernhamer – [SRAuernhamer@gldd.com](mailto:SRAuernhamer@gldd.com)

