

BENEFICIAL USE OPPORTUNITIES AND PARTNERSHIPS

2016 WEDA Gulf Coast Chapter – Annual Conference
November 16, 2016

"The views, opinions and findings contained in this report are those of the authors(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation."



**US Army Corps
of Engineers®**



PANEL MEMBERS

Tricia C. Campbell, P.E.
Operations Manager, Galveston District

Seth Jones
Operations Manager, Galveston District

Thomas Durnin
Project Manager/Coastal Planner
Coastal Protection Division
Coastal Resources Program
Texas General Land Office



US Army Corps
of Engineers.



BESSIE HIGHTS BENEFICIAL USE MARSH CREATION

Meet Navigation Mission by conducting maintenance dredging to maintain channels to authorized dimensions

Sabine Neches Waterway - Neches River Middle Reach is typically dredged every 5 years

SNWW is typically dredged with a hopper dredge (dredge contains material inside dredge and deposits offshore into designated locations, or pumps out from dredge to beach)

Partnered with the Texas General Land Office and the Sabine Neches Navigation District to place material from channel in Bessie Heights marsh restoration project in lieu of upland placement



US Army Corps
of Engineers



BESSIE HIGHTS BENEFICIAL USE MARSH CREATION



US Army Corps
of Engineers.



TEXAS POINT NATIONAL WILDLIFE REFUGE BENEFICIAL USE WETLAND RESTORATION

Meet Navigation Mission by conducting maintenance dredging to maintain channels to authorized dimensions

Sabine Neches Waterway is typically dredged every 3 years

SNWW Pass Channel can be dredged with a hopper or pipeline dredge

Partnered with the Texas General Land Office and Texas National Wildlife Refuge to place material from channel on refuge shoreline in lieu of offshore placement



US Army Corps
of Engineers



TEXAS POINT NATIONAL WILDLIFE REFUGE BENEFICIAL USE WETLAND RESTORATION



US Army Corps
of Engineers.



ROLLOVER PASS / CAPLEN BEACH BENEFICIAL USE BEACH PLACEMENT

Meet Navigation Mission by conducting maintenance dredging to maintain channels to authorized dimensions

Gulf Intracoastal Waterway Channel at Rollover Pass is dredged yearly

Channel is typically dredged with a pipeline dredge and material is pumped to Caplen beach west of Rollover Pass

Partnered with the Texas General Land Office and Galveston County to place material from channel on beach in lieu of upland placement



US Army Corps
of Engineers



ROLLOVER PASS / CAPLEN BEACH BENEFICIAL USE BEACH PLACEMENT



Approximately 140,000 CY placed annually



US Army Corps
of Engineers



PIERCE MARSH BENEFICIAL USE MARSH RESTORATION

Meet Navigation Mission by conducting maintenance dredging to maintain channels to authorized dimensions

Gulf Intracoastal Waterway, Causeway to Bastrop Reach typically dredged every 3 years

GIWW is dredged with a pipeline dredge and material is placed in upland confined and semi-confined placement areas

Partnered with the Texas General Land Office, Galveston Bay Foundation and State and Federal Resource areas to place material from GIWW into Pierce Marsh

Contract awarded to Mike Hooks, INC



PIERCE MARSH BENEFICIAL USE MARSH RESTORATION



Beneficial Use at Pierce Marsh – Restore 85 acres of marsh



US Army Corps
of Engineers



PIERCE MARSH BENEFICIAL USE MARSH RESTORATION



Beneficial Use at Pierce Marsh – Restore 85 acres of marsh



PIERCE MARSH BENEFICIAL USE MARSH RESTORATION



CONTRACT AWARDED TO MIKE HOOKS, INC



US Army Corps
of Engineers.



PIERCE MARSH BENEFICIAL USE MARSH RESTORATION



Pierce Marsh Construction: 144,000 CY and 11,800 linear feet of containment berms



US Army Corps
of Engineers



GALVESTON BENEFICIAL USE BEACH PLACEMENT

Meet Navigation Mission by conducting maintenance dredging to maintain channels to authorized dimensions

Galveston Channel (from between jetties outward to Gulf of Mexico) is typically dredged every 18-24 months

Galveston Channel is typically dredged with a hopper dredge (dredge contains material inside dredge and deposits offshore into designated locations, or pumps out from dredge to beach)

Partnered with the Texas General Land Office and Galveston Island Park Board of Trustees to place material from channel on beach in lieu of offshore placement



US Army Corps
of Engineers



GALVESTON BENEFICIAL USE BEACH PLACEMENT

Scope of Contract

- Hopper Dredging Contract for Galveston Entrance Channel and Houston Ship Channel
- Option for Placement of material along Seawall west of 61st Street

Award to Great Lakes Dredge & Dock Company, LLC

Beach Placement: Sept 3, 2015 to Nov 16, 2015

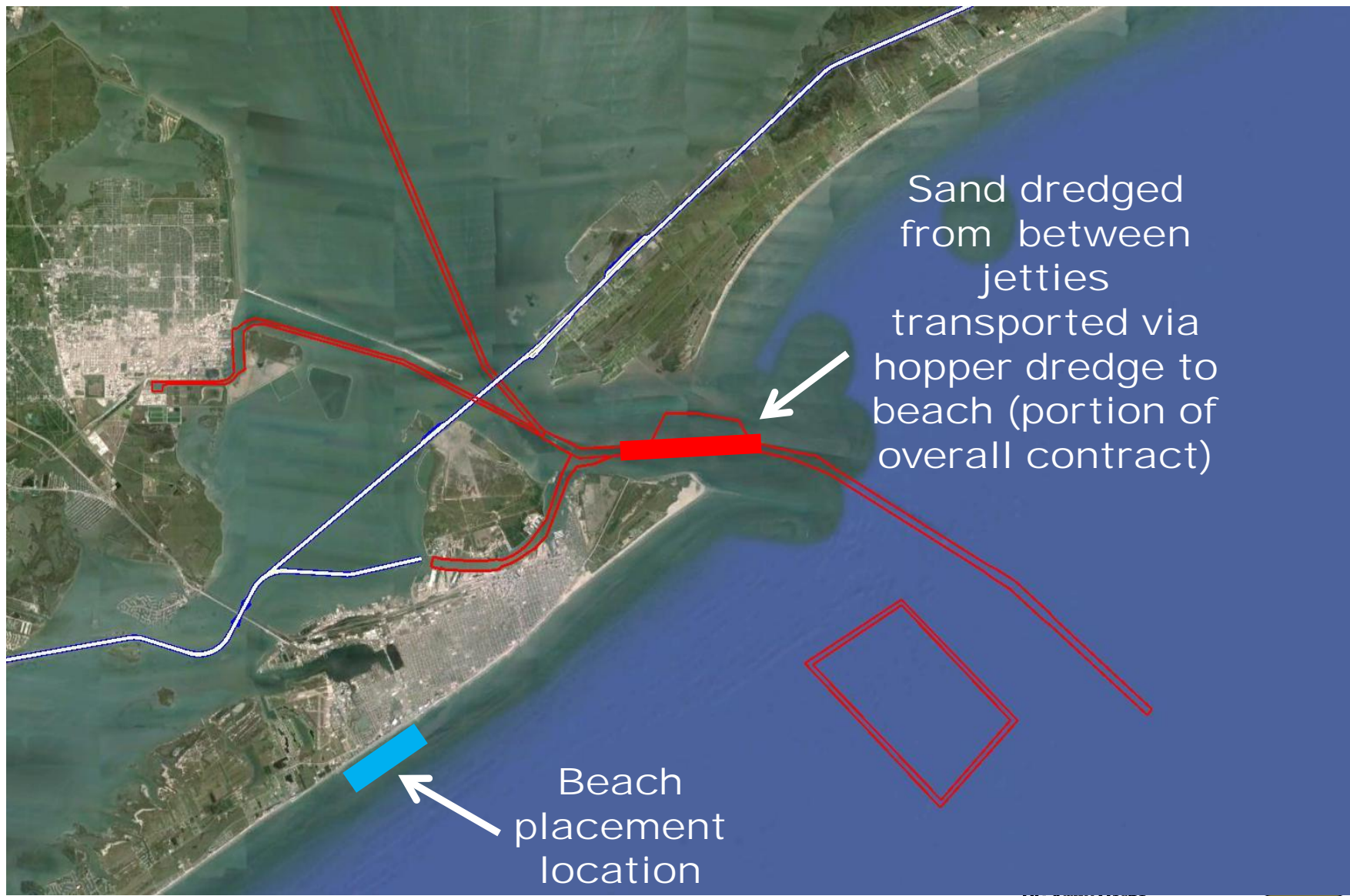
- Approximately 500,000 CY placed, 4500' of beach constructed



US Army Corps
of Engineers



HOUSTON-GALVESTON NAVIGATION CHANNEL AND GALVESTON BEACH



PRIOR TO CONSTRUCTION



CONSTRUCTION—GREAT LAKES DREDGE & DOCK COMPANY, LLC, DREDGE TERRAPIN ISLAND



US Army Corps
of Engineers.



COMPLETED PROJECT



Approximately 500,000 CY placed, 4500' of beach constructed

SOUTH PADRE ISLAND BENEFICIAL USE BEACH PLACEMENT

Meet Navigation Mission by conducting maintenance dredging to maintain channels to authorized dimensions

Brazos Island Harbor, Jetty Channel is typically dredged every 18-24 months. The Entrance Channel is typically dredged every 5-7 years

BIH is typically dredged with a hopper dredge or an ocean going certified pipeline dredge

Partner with the Texas General Land Office, City of South Padre Island and Cameron County to place material from channel on South Padre Island beaches in lieu of offshore placement



US Army Corps
of Engineers



SOUTH PADRE ISLAND BENEFICIAL USE BEACH PLACEMENT



US Army Corps
of Engineers.



U.S. ARMY

SOUTH PADRE ISLAND BENEFICIAL USE BEACH PLACEMENT



<https://vimeo.com/148152470>



US Army Corps
of Engineers.



BENEFICIAL USE CONSIDERATIONS

Challenges

- Pre-Construction
- Construction
- Expectation Management throughout project
- Timing—contract timing, agreements, funding

Lessons Learned

- Galveston Beach BU - First Beach Placement in Galveston, different planning considerations
- Design of Beneficial Use Placement
- Feedback from Contractors at Pre-Bid Conferences



US Army Corps
of Engineers



QUESTIONS?

