FY18 Scheduled Contracts FY19 Planned Contracts

Christopher Frabotta
Chief, Navigation Branch
Galveston District
U.S. Army Corps of Engineers
31 OCT 2017

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GALVESTON DISTRICT FACTS

- √ Texas #2 in Nation in Maritime Commerce
- √ Texas Ports moved 552M+ tons in 2015

| ✓ Galveston District Ports | National Rank |
|----------------------------|---------------|
|----------------------------|---------------|

- ✓ Houston (2)
- ✓ Beaumont (5)
- ✓ Corpus Christi (6)
- ✓ Texas City (15)
- ✓ Port Arthur
- (19)
- ✓ Freeport (32)
- ✓ Matagorda (46)
- (51)✓ Galveston
- √ Brownsville (66)
- ✓ Victoria (70)
- ✓ Gulf Intracoastal Waterway (3)
- ✓ GIWW-TX 73M+ tons at \$43B in 2015
- √ >600M tons of Commercial Cargo
- ✓ 21.8% Nation's Total Tonnage
- √ 25.4% of Nation's Imports
- ✓ 28.6% of Nation's Exports





LEADING U.S. PORTS (2015 Tonnage)

Houston #2 - 240.9 million tons #1 Foreign Tonnage & #2 Total Tonnage

Beaumont #5 - 87.2 m.tons #1 Military Port in World

Gulf Intracoastal Waterway (79 million tons - Texas portion) #3 Inland Waterway

Corpus Christi #6 - 85.7 m.tons America's Energy Gateway

Texas City #15 - 42.9 m.tons Services Largest Petrochemical Complex

Port Arthur #19 - 35.8 m.tons Vital Break-Bulk Port

Freeport #32 - 21.1 m.tons Connecting Global Services Via Caribbean Relay Port

Matagorda to include Port of Port Lavaca and Port of Point Comfort #46 - 11.8 m. tons Generates Annual Business Revenues of Nearly \$2 Billion

Galveston #51 - 10.4 m.tons #4 Cruise Ship Port

Brownsville #66 - 7.7 m.tons #1 Ship Recycling Port

Victoria (#70 - 6.7 m.tons) #2 Shallow-Draft Port for Domestic Crude Petroleum

































U.S. Army Corps of Engineers Galveston District

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GALVESTON NAVIGATION OM FUNDING

FY-17 Execution

President's Budget (less %1) \$106,737,000

FY-17 Allocation \$128,037,000 Carry-in \$13,727,000

Available to Obligate \$141,764,000

Obligated ~\$120,000,000

Percent Execution ~85%

FY-18 Funding Outlook

President's Budget \$109,442,000

Carry-in \$ 13,727,000

Total Anticipated \$121,542,000





FY-18 INITIATIVES

- Continue Hydrographic Survey Webpage
 - All six (6) Deep Draft Navigation Complexes & Gulf Intracoastal Waterway now online
 - http://www.swg.usace.army.mil/Missions/Navigation.aspx
- Continue with TCOON Partnership with NOAA
 - Add Matagorda Ship Channel current meter
- Complete Re-Spacing & Deployment of new GIWW Mooring Buoys
- Construct non-Federal Placement Area Capacity

Corpus Christi (PA-13)

• Freeport Harbor (PA-1)

Sabine-Neches Waterway (PA-8)



Operations Managers





Sabine-Neches Waterway

Belynda Kinman

Operations Manager Navigation Branch 31 October 2017

Galveston District - Dredging Meeting

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DEEP DRAFT FY18 CONTRACT SCHEDULES





Sabine-Neches Waterway



SABINE-NECHES WATERWAY – LOWER NECHES, PORT ARTHUR CANAL, TURNING BASIN, JUNCTION AREA AND TAYLORS BAYOU 1 of 2



| Project: | Lower Neches, Port Arthur Canal, Turning Basin, Junction & Taylors Bayou |
|-------------------------|--|
| Dredging Depth: | 42 ft. Required Depth |
| Dredging Width: | 400 - 1200 ft. |
| Dredging Length: | Varies |
| Dredging Quantity: | 2,000,000 cubic yards |
| Material Type: | Silt/Clay |
| Placement Area: | PA 13 - 17 |
| Distance to Place Area: | 1 - 3 Miles Avg. |
| Type of Equipment: | Pipeline |
| Env. Window: | NA |
| Reason for Window: | NA |
| Start Date: | June 28, 2018 |
| Est. Completion Date: | January 26, 2019 |

Galveston District – Dredging Meeting

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SABINE-NECHES WATERWAY – LOWER NECHES, PORT ARTHUR CANAL, TURNING BASIN, JUNCTION AREA AND TAYLORS BAYOU 2 of 2



| Project: | Lower Neches, Port Arthur Canal, Turning Basin, Junction & Taylors Bayou |
|-------------------------|--|
| Dredging Depth: | 42 ft. Required Depth |
| Dredging Width: | 400 - 1200 ft. |
| Dredging Length: | Varies |
| Dredging Quantity: | 2,000,000 cubic yards |
| Material Type: | Silt/Clay |
| Placement Area: | PA 8 and PA 9 |
| Distance to Place Area: | 1.5 - 2 Miles Avg. |
| Type of Equipment: | Pipeline |
| Env. Window: | NA |
| Reason for Window: | NA |
| Start Date: | June 28, 2018 |
| Est. Completion Date: | January 26, 2019 |

Galveston District – Dredging Meeting



SABINE-NECHES WATERWAY OUTER BAR AND BANK CHANNEL



| Project: | Sabine Neches Waterway Outer Bar and Bank Channel |
|-----------------------------|---|
| Dredging Depth: | 44 ft. Required Depth |
| Dredging Width: | 800 ft. |
| Dredging Length: | Varies |
| Dredging Quantity: | 3,000,000 cubic yards |
| Material Type: | Silt/Clay |
| Placement Area: | Offshore |
| Distance to Placement Area: | 3 Mile Avg. |
| Type of Equipment: | Hopper |
| Env. Window | NA |
| Reason for Window: | NA |
| Start Date: | July 11, 2018 |
| Est. Completion Date: | November 10, 2018 |





SABINE-NECHES WATERWAY PLACEMENT AREA NO. 8 IMPROVEMENTS



| Project: | Sabine Neches Waterway Placement Area No. 8 Improvements |
|-----------------------------|--|
| Type of Work: | Containment Dike Raise |
| Dredging Width: | NA |
| Dredging Length: | NA |
| Dredging Quantity: | NA |
| Material Type: | NA |
| Placement Area: | PA 8 |
| Distance to Placement Area: | NA |
| Type of Equipment: | Excavators; Dozers; Marsh Buggy |
| Env. Window: | NA |
| Reason for Window: | NA |
| Start Date: | July 20, 2018 |
| Est. Completion Date: | January 16, 2019 |

Galveston District – Dredging Meeting





SHALLOW DRAFT – GIWW TRIBUTARIES CHOCOLATE BAYOU







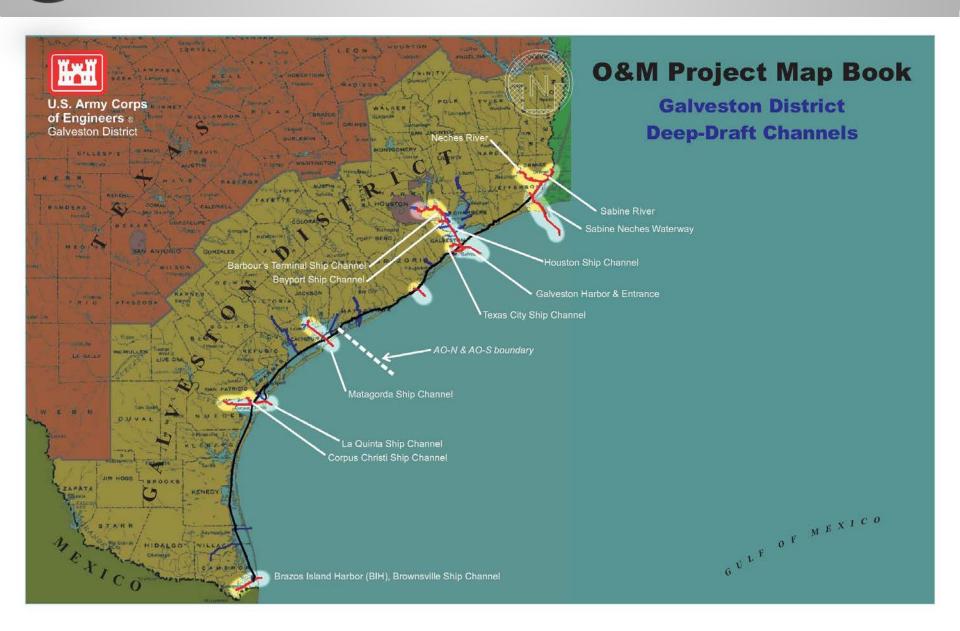


CHOCOLATE BAYOU



| Project: | Chocolate Bayou |
|-----------------------------|--------------------------|
| Dredging Depth: | 15 ft. Required Depth |
| Dredging Width: | 125 ft. |
| Dredging Length: | Varies |
| Dredging Quantity: | 700,000 cubic yards |
| Material Type: | Silt/Sand |
| Placement Area: | BU / Upland Confined |
| Distance to Placement Area: | 1.5 Mile Avg. |
| Type of Equipment: | Pipeline Dredge |
| Env. Window: | 1 March – 31 August |
| Reason for Window: | Nesting birds at BU Site |
| Start Date: | June 11, 2018 |
| Est. Completion Date: | February 6, 2019 |

DEEP DRAFT FY19 PLANNED CONTRACT SCHEDULES





SABINE-NECHES WATERWAY NECHES RIVER



| Project: | Sabine-Neches Waterway Neches River |
|-----------------------------|--|
| Dredging Depth: | 42 ft. Required Depth |
| Dredging Width: | Varies |
| Dredging Length: | Varies |
| Dredging Quantity: | 600,000 cubic yards |
| Material Type: | Silt |
| Placement Area: | Various Upland PAs |
| Distance to Placement Area: | 1- 2 Miles |
| Type of Equipment: | Pipeline |
| Env. Window: | NA |
| Reason for Window: | NA |
| Award: | February 12, 2019 |

Galveston District – Dredging Meeting





SABINE-NECHES WATERWAY PORT ARTHUR CANAL, TURNING BASIN, JUNCTION AREA AND TAYLORS BAYOU



| Project: | Sabine-Neches Waterway Port Arthur Canal, Turning Basin, Junction Area and Taylors Bayou |
|-------------------------|--|
| Dredging Depth: | 42 ft. Required Depth |
| Dredging Width: | 400 - 1200 ft. |
| Dredging Length: | Varies |
| Dredging Quantity: | 2,000,000 cubic yards |
| Material Type: | Silt/Clay |
| Placement Area: | PA 8 and PA 9 |
| Distance to Place Area: | 1.5 - 2 Miles Avg. |
| Type of Equipment: | Pipeline |
| Env. Window: | NA |
| Reason for Window: | NA |
| Award: | September 10, 2019 |









Galveston Harbor and Channel & Houston Ship Channel

Tricia Campbell, P.E.
Operations Manager
Navigation Branch
31 October 2017

Galveston District – Dredging Meeting

Custodians of the Texas Coast



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DEEP DRAFT FY18 CONTRACT SCHEDULES





HOUSTON SHIP CHANNEL – GALVESTON HARBOR TEXAS CITY SHIP CHANNEL

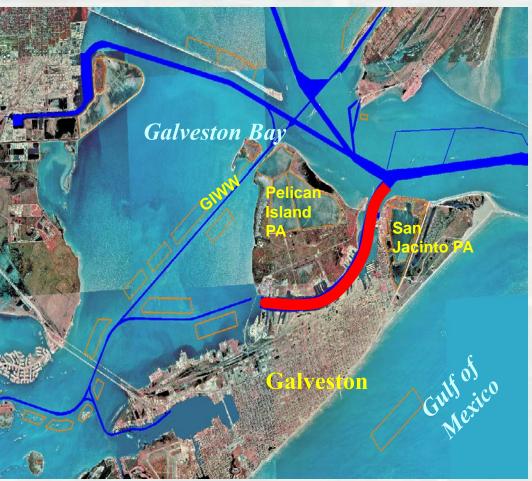








GALVESTON HARBOR



| Project: | Galveston Harbor Channel |
|-------------------------|----------------------------|
| Dredging Depth: | 41 - 46 ft. Required Depth |
| Dredging Width: | Varies |
| Dredging Length: | Varies |
| Dredging Quantity: | 2,000,000 cubic yards |
| Material Type: | Silt |
| Placement Area: | Offshore |
| Distance to Place Area: | 8 Miles Avg. |
| Type of Equipment: | Hopper Dredge |
| Env. Window: | NA |
| Reason for Window: | NA |
| Est. Start Date: | September 9, 2018 |
| Est. Completion Date: | December 28, 2018 |





GALVESTON HARBOR – PELICAN ISLAND PLACEMENT AREA IMPROVEMENTS

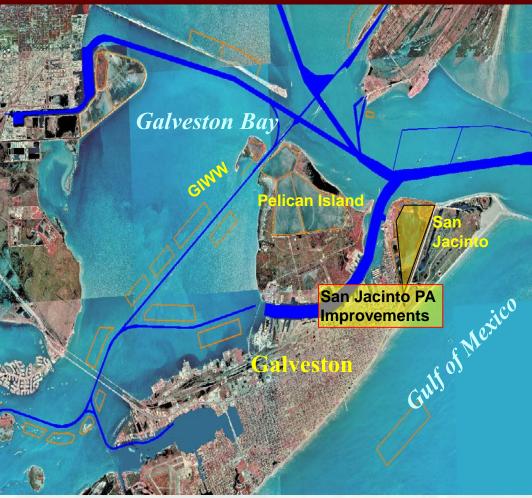


| Project: | Galveston Harbor – Pelican Island Placement Area Improvements |
|----------------------------|---|
| Type of Work: | Improvements |
| Dredging Width: | NA |
| Dredging Length: | NA |
| Dredging Quantity: | NA |
| Material Type: | Silt/Clay |
| Placement Area: | Pelican Island |
| Distance to Place Area: | NA |
| Type of Equipment: | Marsh Buggy/Earthmoving Equipment |
| Env. Window: | NA |
| Reason for Window: | NA |
| Est. Start Date: | November 15, 2018 |
| Est. Completion Date: | September 11, 2019 |





GALVESTON HARBOR – SAN JACINTO PLACEMENT AREA IMPROVEMENTS



| Project: | Galveston Harbor – San Jacinto Placement Area Improvements |
|----------------------------|--|
| Type of Work: | Improvements |
| Dredging Width: | NA |
| Dredging Length: | NA |
| Dredging Quantity: | NA |
| Material Type: | Silt/Clay |
| Placement Area: | San Jacinto |
| Distance to Place Area: | NA |
| Type of Equipment: | Marsh Buggy/Earthmoving Equipment |
| Env. Window: | NA |
| Reason for Window: | NA |
| Est. Start Date: | November 15, 2018 |
| Est. Completion Date: | September 11, 2019 |





HOUSTON SHIP CHANNEL – CARPENTERS BAYOU TO SIMS BAYOU EMERGENCY DREDGING



| Project: | Houston Ship Channel Carpenters Bayou to Sims Bayou Emergency Dredging |
|----------------------------|--|
| Dredging Depth: | 48 ft./43 ft. Required Depth |
| Dredging Width: | 300 - 950 ft. |
| Dredging Length: | Varies |
| Dredging Quantity: | 500,000 cubic yards |
| Material Type: | Silt |
| Placement Area: | Lost Lake & Rosa Allen |
| Distance to Place Area: | 5 Miles |
| Type of Equipment: | Pipeline Dredge |
| Env. Window: | NA |
| Reason for Window: | NA |
| Est. Start Date: | February 10, 2018 |
| Est. Completion Date: | July 30, 2018 |

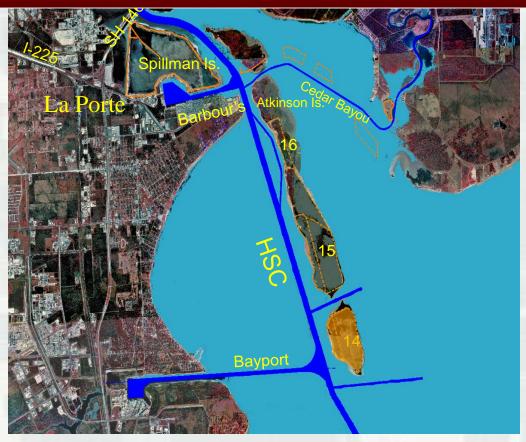


Galveston District - Dredging Meeting





HOUSTON SHIP CHANNEL PLACEMENT AREA NO. 14 DEWATERING

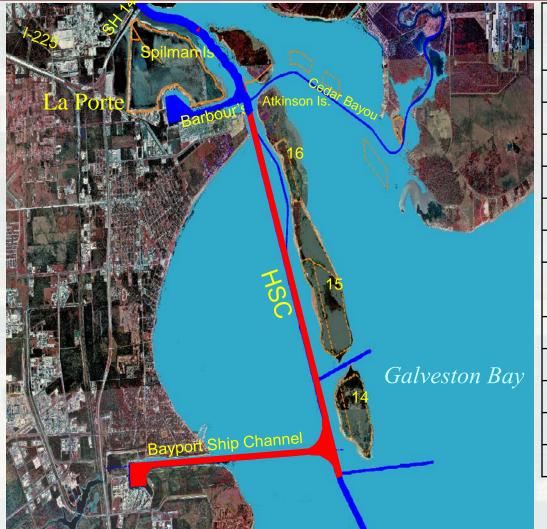


| Project: | Houston Ship Channel Placement Area No. 14 Dewatering |
|----------------------------|---|
| Type of Work: | Placement Area Dewatering |
| Dredging Width: | NA |
| Dredging Length: | NA |
| Dredging Quantity: | NA |
| Material Type: | |
| Placement Area: | PA 14 |
| Distance to Place Area: | NA |
| Type of Equipment: | Marsh Buggy/Earthmoving Equipment |
| Env. Window: | NA |
| Reason for Window: | NA |
| Est. Start Date: | August 31, 2018 |
| Est. Completion Date: | February 27, 2019 |





HOUSTON SHIP CHANNEL – BAYPORT TO MORGANS AND BAYPORT



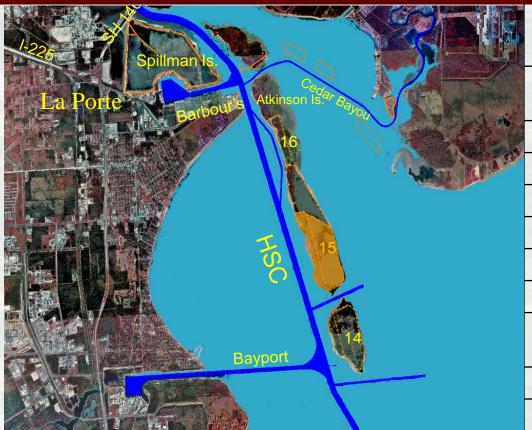
| Project: | Houston Ship Channel Bayport Flare and Bayport to Morgan's Point |
|----------------------------|--|
| Dredging Depth: | 48 ft. Required Depth |
| Dredging Width: | 300 - 530 ft. |
| Dredging Length: | Varies |
| Dredging Quantity: | 2,000,000 cubic yards |
| Material Type: | Silt |
| Placement Area: | PA14 and 15; Marsh Cells |
| Distance to Place Area: | 4 Mile Avg. |
| Type of Equipment: | Pipeline Dredge |
| Env. Window: | NA |
| Reason for Window: | NA |
| Est. Start Date: | August 31, 2018 |
| Est. Completion Date: | May 28, 2019 |

Galveston District – Dredging Meeting





HOUSTON SHIP CHANNEL - PLACEMENT AREA NO. 15 SPILLBOX REPAIR & DEWATERING

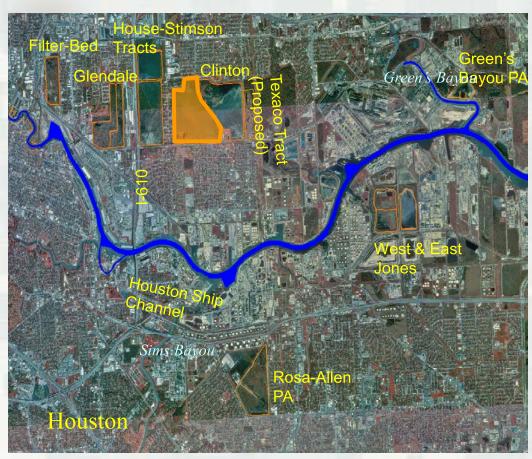


| Project: | Houston Ship Channel - Placement Area No. 15 Spillbox Repair & Dewatering |
|-------------------------|---|
| Type of Work: | Spillbox Repair/Dewatering |
| Dredging Width: | NA |
| Dredging Length: | NA |
| Dredging Quantity: | NA |
| Material Type: | |
| Placement Area: | PA 15 |
| Distance to Place Area: | NA |
| Type of Equipment: | Crane/Earthmoving equipment |
| Env. Window: | NA |
| Reason for Window: | NA |
| Est. Start Date: | October 11, 2018 |
| Est. Completion Date: | April 9, 2019 |





HOUSTON SHIP CHANNEL – WEST CLINTON PLACEMENT AREA IMPROVEMENTS

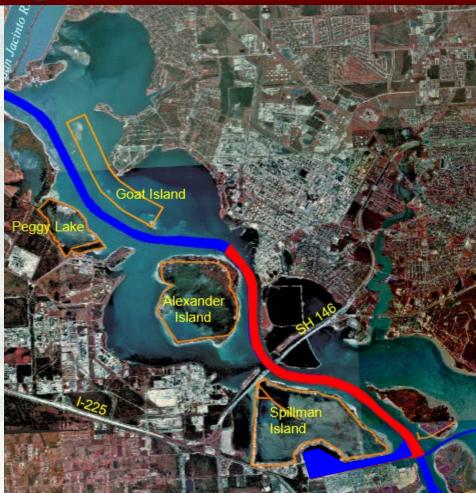


| Project: | Houston Ship Channel West Clinton Improvements |
|-------------------------|---|
| Type of Work: | Containment Dike Raising |
| Dredging Width: | NA |
| Dredging Length: | NA |
| Dredging Quantity: | NA |
| Material Type: | NA |
| Placement Area: | West Clinton |
| Distance to Place Area: | NA |
| Type of Equipment: | Dragline/Earthmoving Equipment |
| Env. Window: | NA |
| Reason for Window: | NA |
| Est. Start Date: | October 5, 2018 |
| Est. Completion Date: | October 5, 2019 |





HOUSTON SHIP CHANNEL MORGAN'S POINT TO EXXON

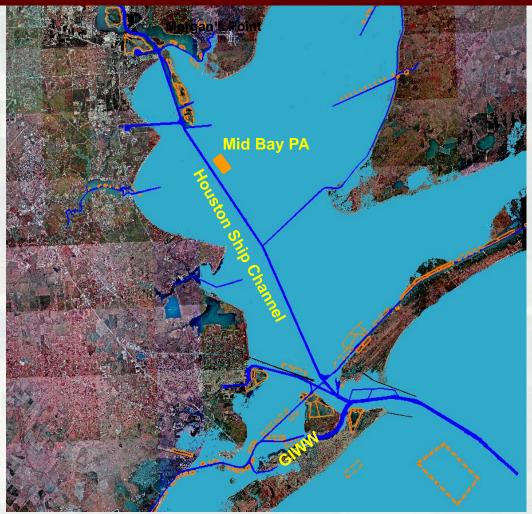


| | Project: | Houston Ship Channel - Morgan's Point to Exxon |
|-----|-------------------------|---|
| Y . | Dredging Depth: | 48 ft. Required Depth |
| | Dredging Width: | 530 – 600 ft. |
| | Dredging Length: | Varies |
| J. | Dredging Quantity: | 1,400,000 cubic yards |
| | Material Type: | Silt |
| | Placement Area: | Alexander Island |
| | Distance to Place Area: | 3 Mile Avg. |
| C | Type of Equipment: | Pipeline |
| | Env. Window: | NA |
| | Est. Start Date: | October 26, 2018 |
| | Est. Completion Date: | July 23, 2019 |





HOUSTON SHIP CHANNEL MID BAY PLACEMENT AREA IMPROVEMENTS

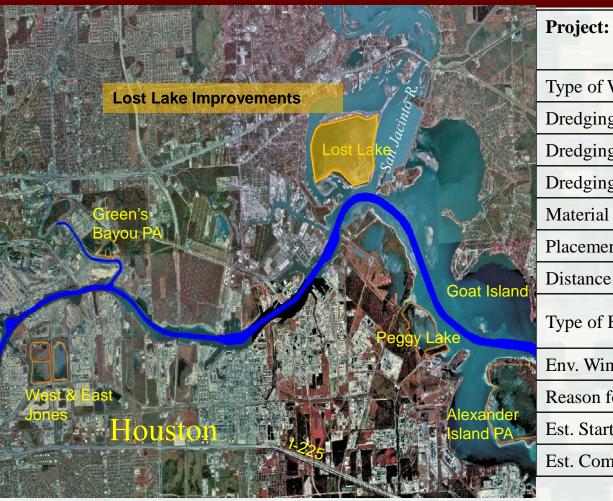


| Project: | Houston Ship Channel Mid Bay PA Improvements |
|-------------------------|---|
| Type of Work: | Containment Dike Raising |
| Dredging Width: | NA |
| Dredging Length: | NA |
| Dredging Quantity: | NA |
| Material Type: | Silt/Clay |
| Placement Area: | Mid Bay |
| Distance to Place Area: | NA |
| Type of Equipment: | Marsh Buggy/ Excavation Equipment |
| Env. Window: | August 31-March 1 (open) |
| Reason for Window: | Migratory Birds |
| Est. Start Date: | November 3, 2018 |
| Est. Completion Date: | August 30, 2019 |





HOUSTON SHIP CHANNEL LOST LAKE PA IMPROVEMENT

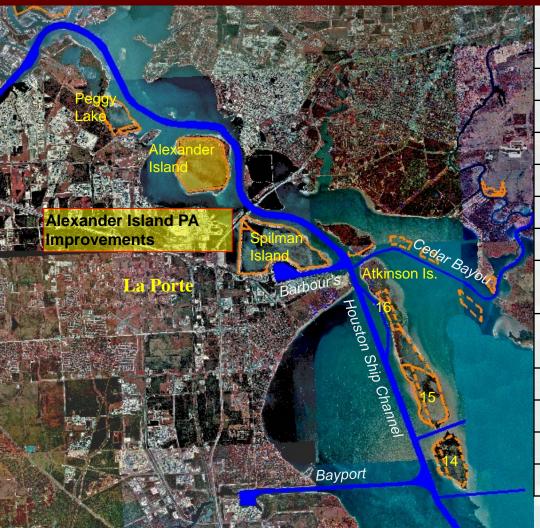


| | Project: | Houston Ship Channel Lost Lake PA Improvements |
|---|-------------------------|---|
| | Type of Work: | Containment Dike Raising |
| | Dredging Width: | NA |
| | Dredging Length: | NA |
| | Dredging Quantity: | NA |
| | Material Type: | Silt/Clay |
| | Placement Area: | NA |
| | Distance to Place Area: | NA |
| | Type of Equipment: | Marsh Buggy/ Excavation Equipment |
| 1 | Env. Window: | NA |
| | Reason for Window: | NA |
| | Est. Start Date: | November 12, 2018 |
| | Est. Completion Date: | November 7, 2019 |





HOUSTON SHIP CHANNEL ALEXANDER ISLAND PA IMPROVEMENTS

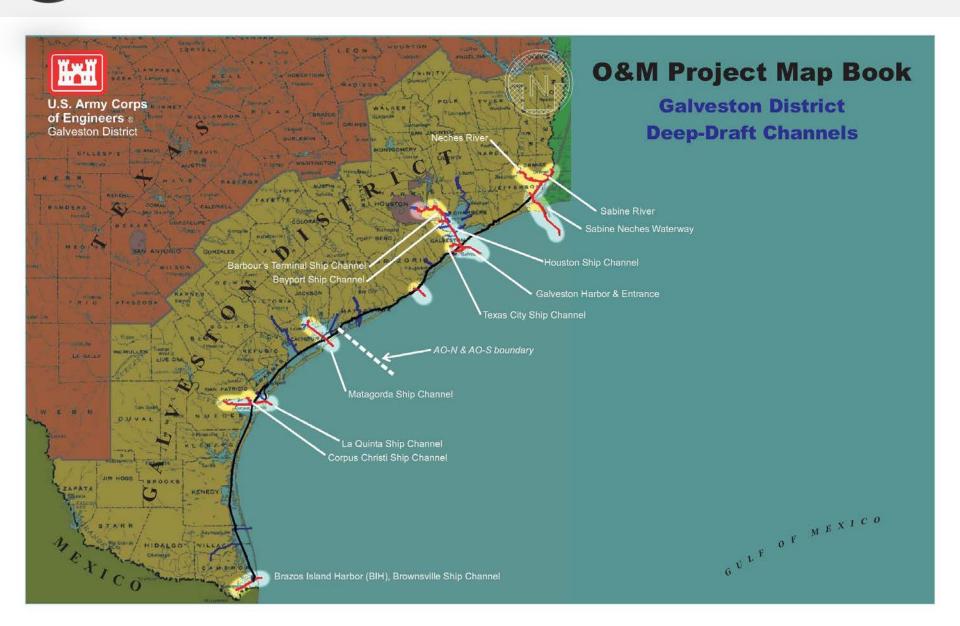


| Project: | Houston Ship Channel Alexander Island Improvements |
|-------------------------|--|
| Type of Work: | Dike Raising |
| Dredging Width: | NA |
| Dredging Length: | NA |
| Dredging Quantity: | NA |
| Material Type: | Silt/Clay |
| Placement Area: | Alexander Island PA |
| Distance to Place Area: | NA |
| Type of Equipment: | Marsh Buggy/ Excavation Equipment |
| Env. Window: | NA |
| Reason for Window: | NA |
| Est. Start Date: | November 15, 2018 |
| Est. Completion Date: | September 11, 2019 |

Galveston District – Dredging Meeting



DEEP DRAFT FY19 PLANNED CONTRACT SCHEDULES





GALVESTON HARBOR - GALVESTON ENTRANCE CHANNEL AND HSC - BOLIVAR ROADS TO REDFISH



| Project: | Galveston Harbor - Galveston Entrance Channel and Houston Ship Channel - Bolivar Roads to Redfish |
|-------------------------|---|
| Dredging Depth: | 48 - 50 ft. Required Depth |
| Dredging Width: | 530 – 1,000 ft. |
| Dredging Length: | 17 miles |
| Dredging Quantity: | 2,000,000 cubic yards |
| Material Type: | Sand / Silt |
| Placement Area: | Offshore |
| Distance to Place Area: | 1 - 15 Mile |
| Type of Equipment: | Hopper |
| Env. Window: | NA |
| Reason for Window: | NA |
| Award: | January 15, 2019 |

Galveston District – Dredging Meeting





HOUSTON SHIP CHANNEL – PLACEMENT AREA NO. 14 & 15 DIKE RAISE



| | Project: | Houston Ship Channel Placement Area No. 14 & 15 Dike Raise |
|------|-------------------------|--|
| 1281 | Type of Work: | Containment Dike Raising |
| | Dredging Width: | NA |
| | Dredging Length: | NA |
| | Dredging Quantity: | NA |
| | Material Type: | |
| | Placement Area: | PA 14 & 15 |
| | Distance to Place Area: | NA |
| | Type of Equipment: | Crane/Earthmoving equipment |
| | Env. Window: | NA |
| | Reason for Window: | NA |
| | Award: | October 15, 2018 |





HOUSTON SHIP CHANNEL – REDFISH TO BEACON 78 WITH BAYPORT FLARE



| | Project: | Houston Ship Channel Redfish to Beacon 78 with Bayport Flare |
|--|-------------------------|--|
| 7 | Dredging Depth: | 48 ft. Required Depth |
| The State of the S | Dredging Width: | 530 ft. |
| | Dredging Length: | Varies |
| | Dredging Quantity: | 2,000,000 cubic yards |
| | Material Type: | Sand |
| | Placement Area: | Offshore |
| | Distance to Place Area: | Varies |
| | Type of Equipment: | Hopper |
| | Env. Window: | NA |
| | Reason for Window: | NA |
| | Award: | February 15, 2019 |





HOUSTON SHIP CHANNEL – BOGGY BAYOU TO GREENS BAYOU AND GREENS BAYOU

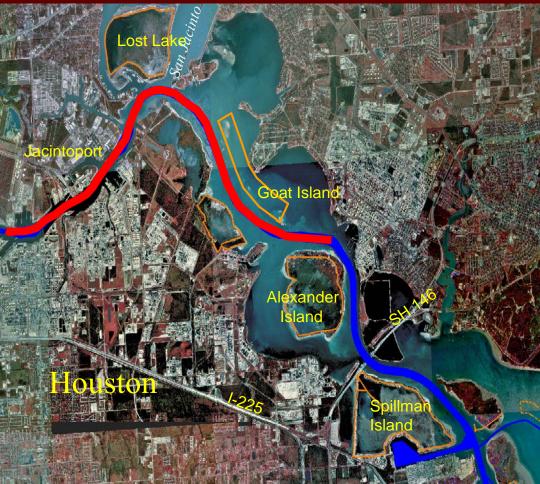


| STATE OF STA | Project: | Houston Ship Channel Boggy Bayou to Greens Bayou and Greens Bayou |
|--|----------------------------|---|
| | Dredging Depth: | 38 - 43 ft. Required Depth |
| 1 | Dredging Width: | 300 ft. |
| 事 | Dredging Length: | Varies |
| 12 | Dredging Quantity: | 1,000,000 cubic yards |
| S. Car | Material Type: | Silt |
| | Placement Area: | Lost Lake/Clinton |
| る。 | Distance to Place Area: | 5 Miles |
| 47 | Type of Equipment: | Pipeline |
| 張 | Env. Window: | NA |
| | Reason for Window: | NA |
| | Est. Start Date: | March 15, 2019 |





HOUSTON SHIP CHANNEL – EXXON TO BOGGY BAYOU AND JACINTOPORT



| Project: | Houston Ship Channel Exxon to Boggy Bayou and Jacintoport |
|-------------------------|---|
| Dredging Depth: | 48 ft. Required Depth |
| Dredging Width: | 300 ft. |
| Dredging Length: | Varies |
| Dredging Quantity: | 1,500,000 cubic yards |
| Material Type: | Silt |
| Placement Area: | Lost Lake PA and Peggy Lake PA |
| Distance to Place Area: | 3 Mile Avg. |
| Type of Equipment: | Pipeline Dredge |
| Env. Window: | NA |
| Award: | May 30, 2019 |





HOUSTON SHIP CHANNEL – SIMS BAYOU TO TURNING BASIN AND LIGHT DRAFT CHANNEL

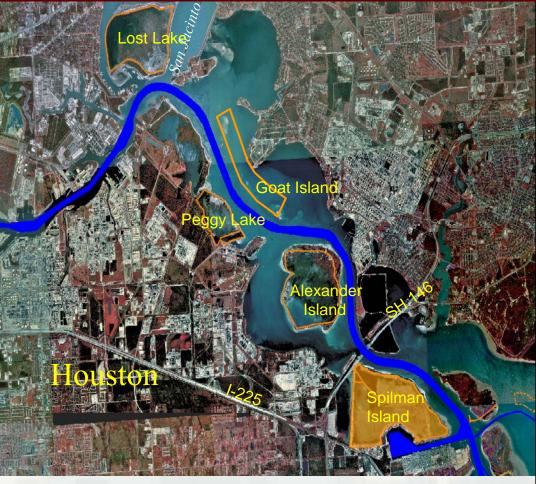


| | Project: | Houston Ship Channel – Sims Bayou to Turning Basin and Light Draft Channel |
|----------|-------------------------|--|
| | Dredging Depth: | HSC 39 ft. Required Depth Light Draft 11 ft. Required |
| 0.80 | Dredging Width: | 530 – 1,000 ft. |
| | Dredging Length: | 17 miles |
| | Dredging Quantity: | 1,500,000 cubic yards |
| | Material Type: | Sand / Silt |
| 0.5 | Placement Area: | House Tract |
| | Distance to Place Area: | 7 Miles |
| STREET | Type of Equipment: | Pipeline |
| S. C. S. | Env. Window: | NA |
| | Reason for Window: | NA |
| | Est. Start Date: | September 30, 2019 |





HOUSTON SHIP CHANNEL – SPILMAN ISLAND PA DEWATERING



| Project: | Houston Ship Channel Spilman Island PA Dewatering |
|-------------------------|---|
| Type of Work: | Placement Area Dewatering |
| Dredging Width: | NA |
| Dredging Length: | NA |
| Dredging Quantity: | NA |
| Material Type: | Silt/Clay |
| Placement Area: | Spilman Island |
| Distance to Place Area: | NA |
| Type of Equipment: | Dragline/Earthmoving equipment |
| Env. Window: | NA |
| Reason for Window: | NA |
| Award: | September 30, 2019 |









Freeport Harbor & Matagorda Ship Channel

Aron Edwards

Operations Manager Navigation Branch 31 October 2017

Galveston District - Dredging Meeting

Custodians of the Texas Coast



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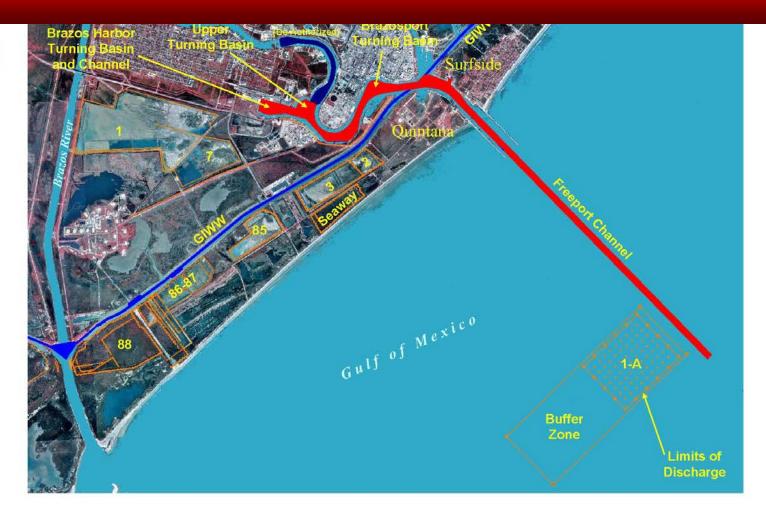


DEEP DRAFT FY18 CONTRACT SCHEDULES





Freeport Harbor







FREEPORT HARBOR PLACEMENT AREA #1 CONTAINMENT DIKE RAISE

| Brazos Harbor Upper Turning Basin Turning Basi and Channel | Startfer Chapte Farazos port for ning E Jam Surfiside | Project: | Freeport Harbor, TX Placement Area #1 Containment Dike Raise |
|--|---|-----------------------|--|
| | | Type of Work: | Dike Raising |
| | Oumana | Dredging Width: | NA |
| | | Dredging Length: | NA |
| | 19 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 | Dredging Quantity: | NA |
| | A CAMPA | Material Type: | Sand/Silt |
| | 97 ₇₀ | Placement Area (PA): | PA 1 |
| N CAVADA | | Distance to PA: | NA |
| | ic o | Type of Equipment: | Dragline/Earthmoving Equipment |
| 88 | of Mex. | Env. Window: | NA |
| | Gulf of Mexico | Reason for Window: | NA |
| | | Est. Start Date: | January 1, 2018 |
| | Buffer Zone | Est. Completion Date: | January 12, 2019 |
| | | | |

Galveston District – Dredging Meeting





FREEPORT HARBOR JETTY CHANNEL AND INSIDE CHANNEL

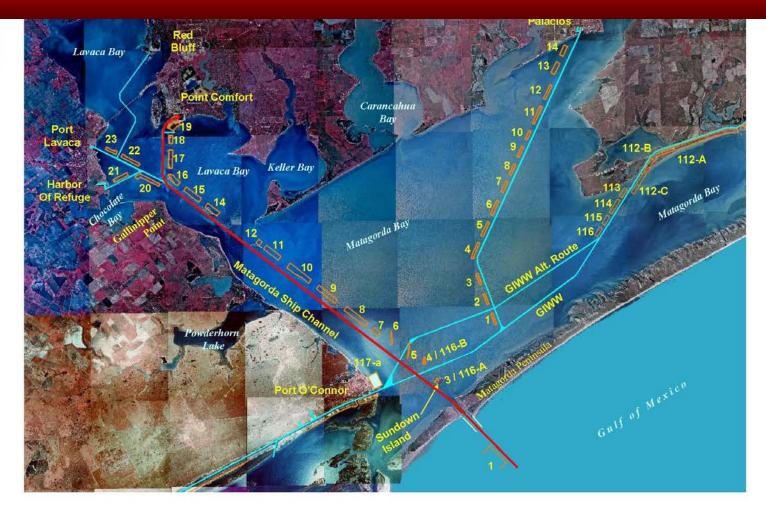
| Brazos Harbor Upper Turning Basin Turning Basin and Channel | Starffer Charlie Erazbe port Literaring Basin Surfside | Project: | Freeport Harbor Jetty Channel and Inside Channel |
|---|--|-------------------------|--|
| | | Dredging Depth: | 46 ft. Required Depth |
| | Oumrana | Dredging Width: | 280 - 1190 ft. |
| | | Dredging Length: | Varies |
| | | Dredging Quantity: | 2,600,000 cubic yards |
| | Company of the Compan | Material Type: | Sand/Silt |
| | 9 ₇₇₀ | Placement Area: | Offshore |
| | | Distance to Place Area: | 2.5 Mile Avg. |
| | ; c 0 | Type of Equipment: | Hopper |
| 88 | Gulf of Mexico | Env. Window: | NA |
| | Gulf " | Reason for Window: | NA |
| | | Est. Start Date: | July 13, 2018 |
| | Buffer Zone | Est. Completion Date: | November 12, 2018 |
| 887 T | | | |

Galveston District - Dredging Meeting





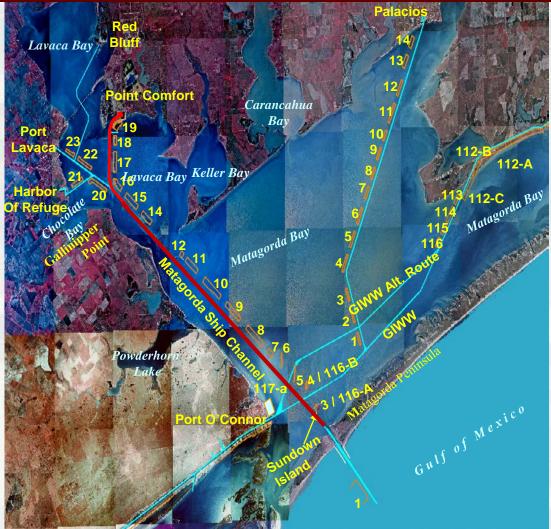
Matagorda Ship Channel







MATAGORDA SHIP CHANNEL MATAGORDA PENINSULA TO POINT COMFORT

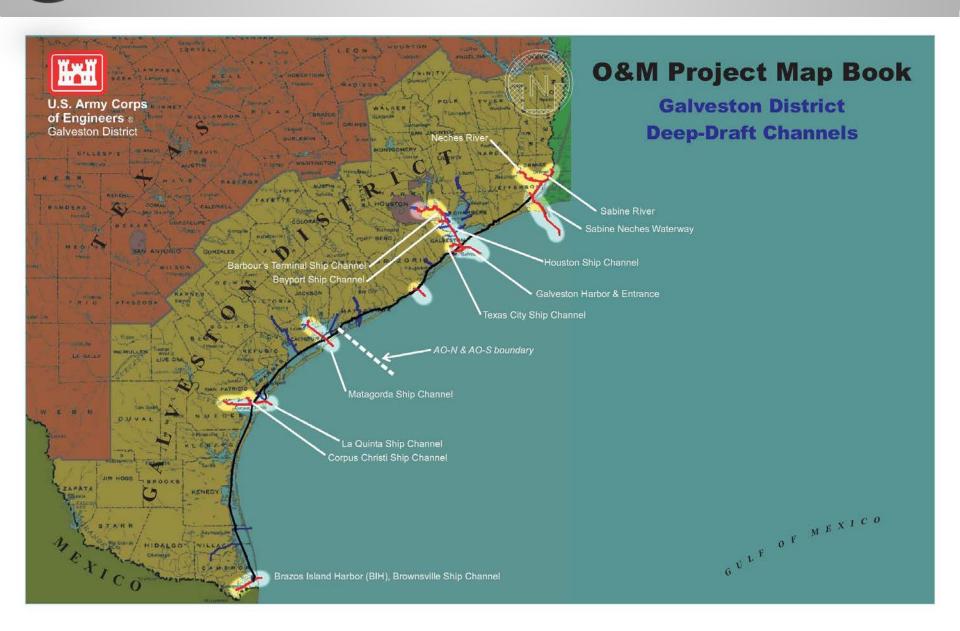


| Project: | Matagorda Ship Channel Matagorda Peninsula to Point Comfort |
|----------------------------|---|
| Dredging Depth: | 40 ft. Required Depth |
| Dredging Width: | 200 ft. |
| Dredging Length: | Varies |
| Dredging Quantity: | 2,000,000 cubic yards |
| Material Type: | Sand/Silt |
| Placement Area: | Open Water/Semi Confined |
| Distance to Place Area: | Varies |
| Type of Equipment: | Pipeline Dredge |
| Env. Window: | Sept 1 – Feb 28 (Open) |
| Reason for Window: | Nesting birds Sundown Is |
| Est. Start Date: | July 24, 2018 |
| Est. Completion Date: | March 6, 2019 |

Galveston District – Dredging Meeting



DEEP DRAFT FY19 PLANNED CONTRACT SCHEDULES





FREEPORT HARBOR JETTY CHANNEL AND INSIDE CHANNEL



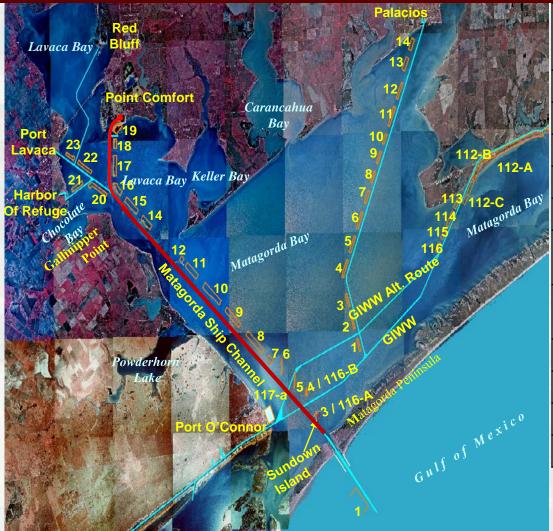
| Project: | Freeport Harbor Jetty Channel and Inside Channel |
|-------------------------|--|
| Dredging Depth: | 48-49 ft. Required Depth |
| Dredging Width: | 280 - 1190 ft. |
| Dredging Length: | Varies |
| Dredging Quantity: | 2,600,000 cubic yards |
| Material Type: | Sand/Silt |
| Placement Area: | Offshore |
| Distance to Place Area: | 2.5 Mile Avg. |
| Type of Equipment: | Hopper |
| Env. Window: | NA |
| Reason for Window: | NA |
| Est. Start Date: | June 14, 2019 |

Galveston District - Dredging Meeting





MATAGORDA SHIP CHANNEL MATAGORDA PENINSULA TO POINT COMFORT



| Project: | Matagorda Ship Channel Matagorda Peninsula to Point Comfort |
|----------------------------|---|
| Dredging Depth: | 40 ft. Required Depth |
| Dredging Width: | 200 ft. |
| Dredging Length: | Varies |
| Dredging Quantity: | 2,000,000 cubic yards |
| Material Type: | Sand/Silt |
| Placement Area: | Open Water/Semi Confined |
| Distance to Place Area: | Varies |
| Type of Equipment: | Pipeline Dredge |
| Env. Window: | Sept 1 – Feb 28 (Open) |
| Reason for Window: | Nesting birds Sundown Is |
| Award: | September 16, 2019 |











Corpus Christi Ship Channel

Steven Howard

Operations Manager Navigation Branch 31 October 2017

Galveston District - Dredging Meeting

Custodians of the Texas Coast



US Army Corps of Engineers
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DEEP DRAFT FY18 CONTRACT SCHEDULES





Corpus Christi Ship Channel



CORPUS CHRISTI SHIP CHANNEL INNER BASIN TO VIOLA T.B. & LA QUINTA CHANNEL



| Project: | Corpus Christi Ship Channel Inner Basin to Viola Turning Basin / La Quinta Channel |
|-----------------------------|--|
| Dredging Depth: | 49-ft. Required Depth |
| Dredging Width: | 300-400ft. |
| Dredging Length: | Varies |
| Dredging Quantity: | 2,900,000 cubic yards |
| Material Type: | Silt / Sand |
| Placement Area: | Open Water and Upland |
| Distance to Placement Area: | 1-4 Miles |
| Type of Equipment: | Pipeline Dredge |
| Env. Window | Sep. – Feb. (Open) |
| Reason for Window: | Nesting Birds PA 7-8 |
| Start Date: | July 16, 2018 |
| Est. Completion Date: | February 15, 2019 |





CORPUS CHRISTI SHIP CHANNEL JETTY REPAIRS



| Project: | Corpus Christi Ship Channel Jetty Repairs |
|----------------------------|--|
| Type of Work: | Jetty Repairs |
| Dredging Width: | NA |
| Dredging Length | : NA |
| Dredging Quantit | y: NA |
| Material Type: | NA |
| Placement Area: | NA |
| Distance to Place Area: | ment NA |
| Type of Equipme | ent: Marine Construction |
| Env. Window: | NA |
| Reason for Windo | ow: NA |
| Est. Start Date: | September 12, 2018 |
| Est. Completion l | Date: March 5, 2019 |





CORPUS CHRISTI SHIP CHANNEL PLACEMENT AREA NO. 10 (PA 10) IMPROVEMENTS



| Project: | Corpus Christi Ship Channel PA 10 Improvements |
|-----------------------------|---|
| Type of Work: | Containment Dike |
| Dredging Width: | NA |
| Dredging Length: | NA |
| Dredging Quantity: | NA |
| Material Type: | NA |
| Placement Area: | PA 10 |
| Distance to Placement Area: | NA |
| Type of Equipment: | Bull dozers; Excavators |
| Env. Window: | NA |
| Reason for Window: | NA |
| Est. Start Date: | September 20, 2018 |
| Est. Completion Date: | August 10, 2019 |





CORPUS CHRISTI SHIP CHANNEL – SUNTIDE PLACEMENT AREA IMPROVEMENT



| Project: | CCSC - Suntide Placement Area Improvement |
|-------------------------|--|
| Type of Work: | Levee |
| Dredging Width: | NA |
| Dredging Length: | NA |
| Dredging Quantity: | NA |
| Material Type: | NA |
| Placement Area: | Suntide |
| Distance to Place Area: | NA |
| Type of Equipment: | Dragline/Earthmoving equipment |
| Env. Window: | NA |
| Reason for Window: | NA |
| Est. Start Date: | September 15, 2018 |
| Est. Completion Date: | March 16, 2019 |





CHANNEL TO VICTORIA AND CHANNEL TO SEADRIFT



| | Project: | GIWW, Ch to Victoria Lower Reach, Seadrift |
|------|-----------------------|---|
| | Dredging Depth: | 16-ft Required Depth |
| が見るの | Dredging Width: | 125 ft. |
| | Dredging Length: | Varies |
| 0.00 | Dredging Quantity: | 1,500,000 cubic yards |
| | Material Type: | Silt/Sand |
| > | Placement Area (PA): | Upland Confined |
| | Distance to PA: | 2.0 Mile (avg.) |
| | Type of Equipment: | Pipeline |
| | Env. Window: | NA |
| | Reason for Window: | NA |
| | Est. Start Date: | May 30, 2018 |
| | Est. Completion Date: | November 16, 2018 |



DEEP DRAFT FY19 PLANNED CONTRACT SCHEDULES





CORPUS CHRISTI SHIP CHANNEL – TULE LAKE PLACEMENT AREA IMPROVEMENT

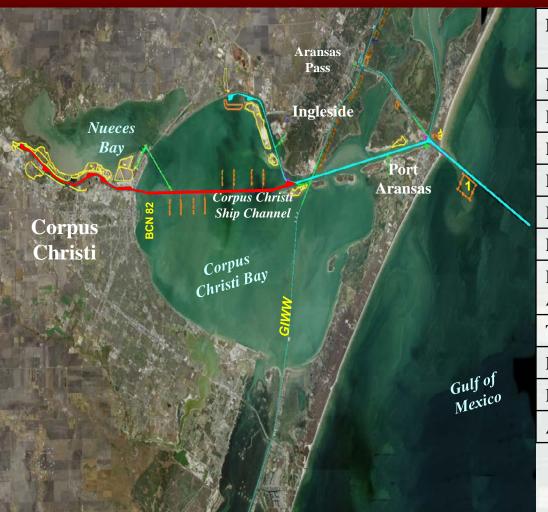


| A STATE OF THE STA | Project: | CCSC – Tule Lake Placement Area Improvement |
|--|-------------------------|---|
| | Type of Work: | Containment Dike Raising |
| | Dredging Width: | NA |
| | Dredging Length: | NA |
| | Dredging Quantity: | NA |
| / | Material Type: | Silt/Clay |
| | Placement Area: | Tule Lake |
| | Distance to Place Area: | NA |
| | Type of Equipment: | Dragline/Earthmoving equipment |
| | Env. Window: | NA |
| | Reason for Window: | NA |
| | Award: | April 15, 2019 |





CORPUS CHRISTI SHIP CHANNEL INNER BASIN TO VIOLA



| Project: | Corpus Christi Ship Channel Inner Basin to Viola |
|-----------------------------|---|
| Dredging Depth: | 49-ft. Required Depth |
| Dredging Width: | 300-400ft. |
| Dredging Length: | Varies |
| Dredging Quantity: | 2,500,000 cubic yards |
| Material Type: | Silt / Sand |
| Placement Area: | Open Water and Upland |
| Distance to Placement Area: | 1-4 Miles |
| Type of Equipment: | Pipeline Dredge |
| Env. Window | Sep. – Feb. (Open) |
| Reason for Window: | Nesting Birds PA 7-8 |
| Award: | August 15, 2019 |







Brazos Island Harbor (BIH) & Gulf Intracoastal Waterway

Seth Jones

Operation Manager Navigation Branch 31 October 2017

Galveston District - Dredging Meeting

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US Army Corps of Engineers
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DEEP DRAFT FY18 CONTRACT SCHEDULES





Brazos Island Harbor (Brownsville Harbor)



Brazos Island Harbor (BIH) Brownsville Ship Channel





BRAZOS ISLAND HARBOR JETTY CHANNEL WITH BEACH PLACEMENT



| Project: | Brazos Island Harbor Brownsville Jetty Channel |
|-------------------------|---|
| Dredging Depth: | 46 ft. Required Depth |
| Dredging Width: | 300 - 400 ft. |
| Dredging Length: | Varies |
| Dredging Quantity: | 400,000 cubic yards |
| Material Type: | Sand |
| Placement Area: | Beach/BU |
| Distance to Place Area: | 1-5 Miles Avg. |
| Type of Equipment: | Hopper/Pipeline |
| Env. Window: | 1 Oct- 14Mar |
| Reason for Window: | Turtle/Tourism |
| Est. Start Date: | February 2, 2018; September 27, 2018 |
| Est. Completion Date: | March 31, 2018 November 26, 2018 |

Galveston District – Dredging Meeting



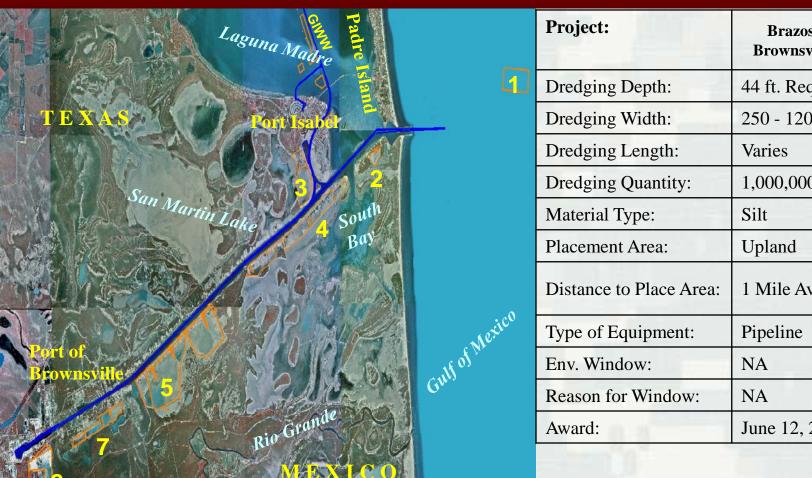


DEEP DRAFT FY19 CONTRACT SCHEDULES





BRAZOS ISLAND HARBOR MAIN CHANNEL

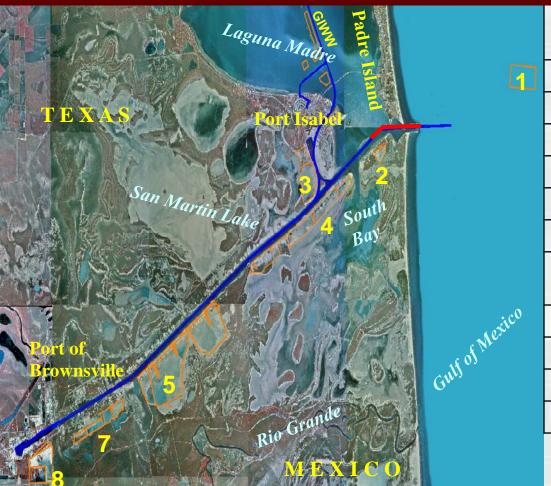


| Project: | Brazos Island Harbor Brownsville Ship Channel |
|-------------------------|--|
| Dredging Depth: | 44 ft. Required Depth |
| Dredging Width: | 250 - 1200 ft. |
| Dredging Length: | Varies |
| Dredging Quantity: | 1,000,000 cubic yards |
| Material Type: | Silt |
| Placement Area: | Upland |
| Distance to Place Area: | 1 Mile Avg. |
| Type of Equipment: | Pipeline |
| Env. Window: | NA |
| Reason for Window: | NA |
| Award: | June 12, 2019 |





BRAZOS ISLAND HARBOR JETTY CHANNEL WITH BEACH PLACEMENT

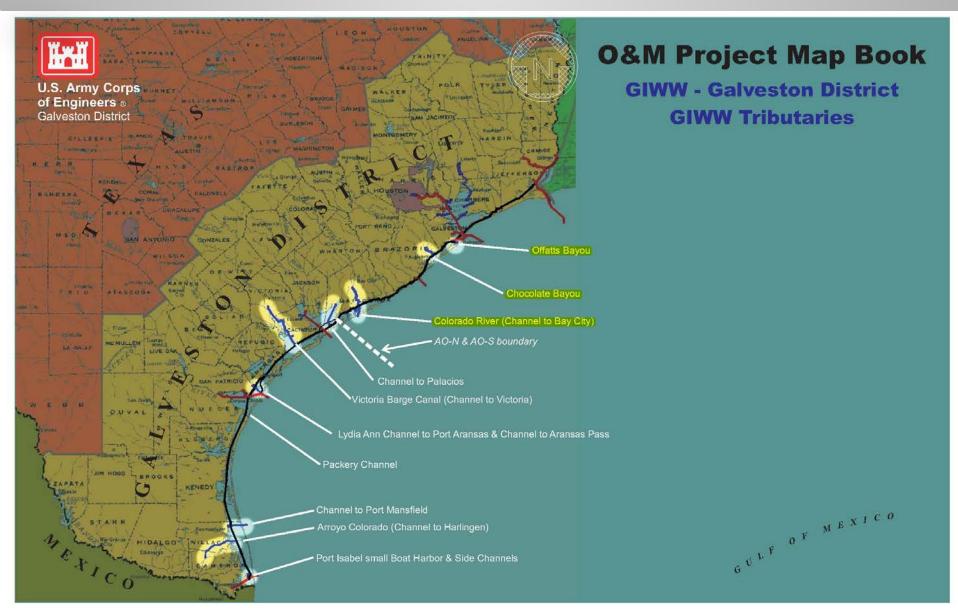


| Project: | Brazos Island Harbor Brownsville Jetty Channel |
|-------------------------|---|
| Dredging Depth: | 46 ft. Required Depth |
| Dredging Width: | 300 - 400 ft. |
| Dredging Length: | Varies |
| Dredging Quantity: | 400,000 cubic yards |
| Material Type: | Sand |
| Placement Area: | Beach/BU |
| Distance to Place Area: | 1-5 Miles Avg. |
| Type of Equipment: | Hopper/Pipeline |
| Env. Window: | 1 Oct- 14Mar |
| Reason for Window: | Turtle/Tourism |
| Award: | September 17, 2019 |



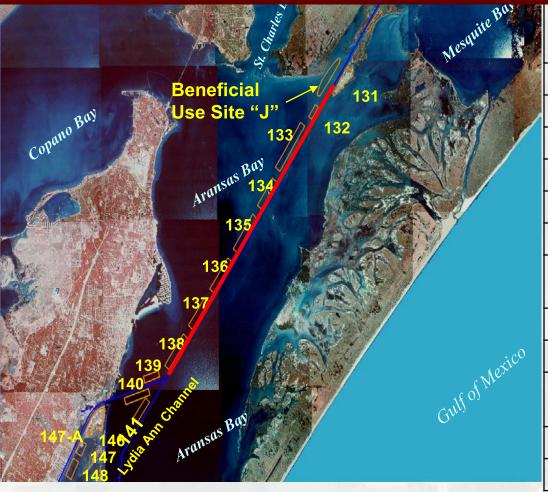


SHALLOW DRAFT FY18 CONTRACT SCHEDULES





GULF INTRACOASTAL WATERWAY CHANNEL ACROSS ARANSAS BAY



| Project: | Gulf Intracoastal Waterway Channel Across Aransas Bay |
|-------------------------|--|
| Dredging Depth: | 14-16 ft. Required Depth |
| Dredging Width: | 125 ft. |
| Dredging Length: | Varies |
| Dredging Quantity: | 1,200,000 cubic yards |
| Material Type: | Sand/Silt |
| Placement Area: | Open / BU |
| Distance to Place Area: | 1 Mile Avg. |
| Type of Equipment: | Pipeline |
| Env. Window: | April thru Oct |
| Reason for Window: | Whooping Crane/Nesting Birds |
| Est. Start Date: | March 3, 2018 |
| Est. Completion Date: | October 14, 2018 |





GULF INTRACOASTAL WATERWAY – FREEPORT TO CANEY CREEK, BRAZOS RIVER CROSSING



| Project: | Gulf Intracoastal Waterway Freeport to Caney Creek, Brazos River Crossing |
|-------------------------|---|
| Dredging Depth: | 13-15 ft. Required Depth |
| Dredging Width: | 125 ft. |
| Dredging Length: | Varies |
| Dredging Quantity: | 600,000 cubic yards |
| Material Type: | Sand/Silt |
| Placement Area: | Open / BU |
| Distance to Place Area: | 1 Mile Avg. |
| Type of Equipment: | Pipeline |
| Env. Window: | NA |
| Reason for Window: | NA |
| Est. Start Date: | May 29, 2018 |
| Est. Completion Date: | September 29, 2018 |









GULF INTRACOASTAL WATERWAY PA 86 & 87 IMPROVEMENTS

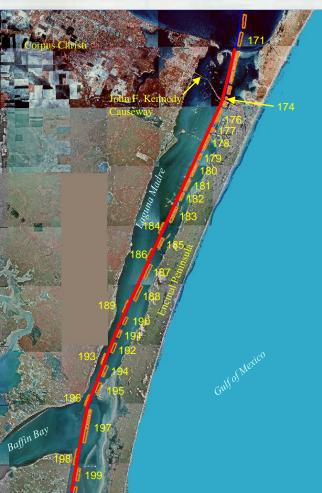


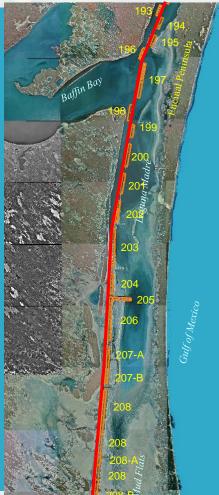
| Project: | Gulf Intracoastal Waterway PA 86 & 87 Containment Dike Raise |
|-------------------------|--|
| Type of Work: | Dike Raising |
| Dredging Width: | NA |
| Dredging Length: | NA |
| Dredging Quantity: | NA |
| Material Type: | Silt/Clay |
| Placement Area: | PA 86 & 87 |
| Distance to Place Area: | NA |
| Type of Equipment: | Dragline |
| Env. Window: | NA |
| Reason for Window: | NA |
| Est. Start Date: | May 29, 2018 |
| Est. Completion Date: | July 5, 2019 |





1 OF 3





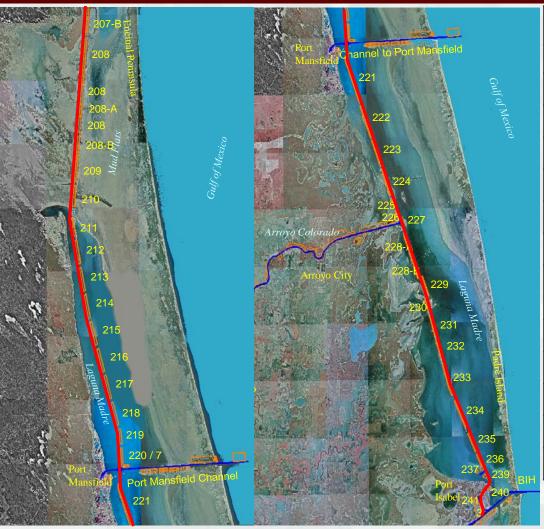
| Project: | Gulf Intracoastal Waterway Corpus Christi to Port Isabel/ Channel to Harlingen |
|-----------------------------|--|
| Dredging Depth: | 14 ft. Required Depth |
| Dredging Width: | 125 ft. |
| Dredging Length: | Varies |
| Dredging Quantity: | 1,500,000 cubic yards |
| Material Type: | Fine Silt/Sand |
| Placement Area: | Open/BU Sites |
| Distance to Placement Area: | 3 Miles Avg. |
| Type of Equipment: | Pipeline |
| Env. Window: | 1 Nov 28 Feb. |
| Reason for Window: | Seagrass |
| Est. Start Date: | July 29, 2018 |
| Est. Completion Date: | February 28, 2019 |

Galveston District - Dredging Meeting





2 OF 3



| Project: | Gulf Intracoastal Waterway Corpus Christi to Port Isabel/ Channel to Harlingen |
|-----------------------------|--|
| Dredging Depth: | 14 ft. Required Depth |
| Dredging Width: | 125 ft. |
| Dredging Length: | Varies |
| Dredging Quantity: | 1,500,000 cubic yards |
| Material Type: | Fine Silt/Sand |
| Placement Area: | Open/BU Sites |
| Distance to Placement Area: | 3 Miles Avg. |
| Type of Equipment: | Pipeline |
| Env. Window: | 1 Nov 28 Feb. |
| Reason for Window: | Seagrass |
| Est. Start Date: | July 29, 2018 |
| Est. Completion Date: | February 28, 2019 |

Galveston District - Dredging Meeting





3 OF 3



| Value of | Project: | Channel to Harlingen |
|----------|-----------------------------|-----------------------|
| do Takes | Dredging Depth: | 14 ft. Required Depth |
| 1 | Dredging Width: | 125 ft. |
| 1 to 145 | Dredging Length: | Varies |
| 100 | Dredging Quantity: | 1,500,000 cubic yards |
| | Material Type: | Fine Silt/Sand |
| | Placement Area: | Upland |
| | Distance to Placement Area: | 3 Miles Avg. |
| | Type of Equipment: | Pipeline |
| e | Env. Window: | 1 Mar. – 31 Aug. |
| | Reason for Window: | Nesting Birds |
| | Est. Start Date: | July 29, 2018 |
| A. C. | Est. Completion Date: | February 28, 2019 |









GULF INTRACOASTAL WATERWAY - ROLLOVER PASS TO GALVESTON CAUSEWAY & BOLIVAR FLARE





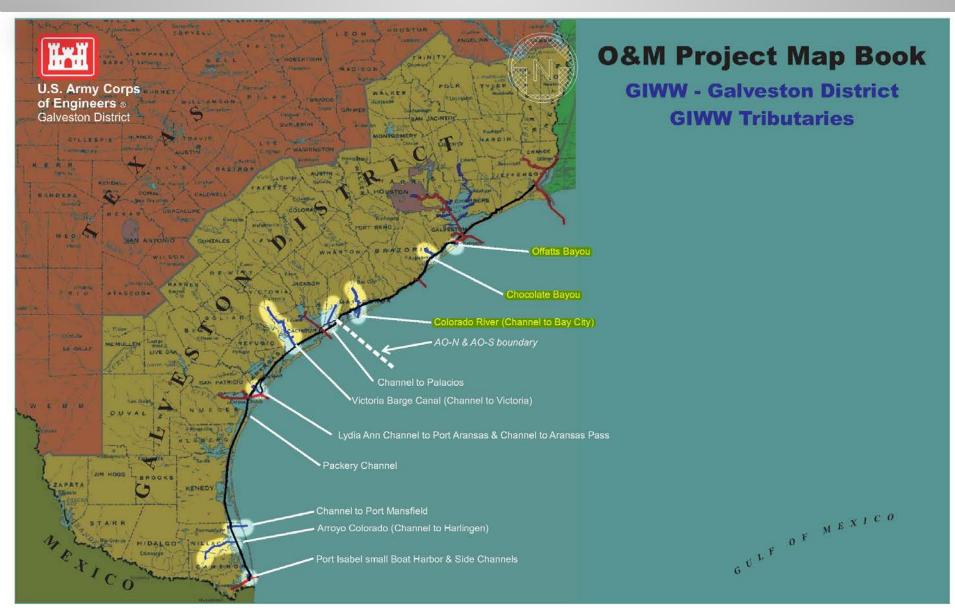
| Project: | Gulf Intracoastal Waterway Rollover to Causeway & Bolivar Flare |
|-------------------------|---|
| Dredging Depth: | 15 ft. Required Depth |
| Dredging Width: | 125 ft. |
| Dredging Length: | Varies |
| Dredging Quantity: | 800,000 cubic yards |
| Material Type: | Fine Sand/Silt |
| Placement Area: | Upland/Open Water/BU |
| Distance to Place Area: | 2.0 Mile Avg. |
| Type of Equipment: | Pipeline |
| Env. Window: | N/A |
| Reason for Window: | N/A |
| Est. Start Date: | September 19, 2018 |
| Est. Completion Date: | January 16, 2019 |

Galveston District – Dredging Meeting





SHALLOW DRAFT FY19 PLANNED CONTRACT SCHEDULES





GULF INTRACOASTAL WATERWAY – CRANEY CREEK TO UPPER MATAGORDA BAY; BRAZOS RIVER CROSSING

1 OF 3

| | Boggy 01 101-A Bayou 104-A 104-B | Project: | Gulf Intracoastal Waterway Caney Creek to Upper Matagorda Bay; Brazos River Crossing |
|---|----------------------------------|-----------------------------|--|
| S TO THE STATE OF | 104 103703 102-18 | Dredging Depth: | 14-16 ft. Required Depth |
| and the second | | Dredging Width: | 125 ft. |
| Colorado Colorado River Loks | 5 | Dredging Length: | Varies |
| River Locks 106 | gorda Bay | Dredging Quantity: | 1,000,000 cubic yards |
| Baxter Mata | gon | Material Type: | Fine Silt/Sand |
| Island 106 | | Placement Area: | Open/Upland Confined |
| 108 108-A | | Distance to Placement Area: | 2 Miles Avg. |
| Light to | | Type of Equipment: | Pipeline |
| Car E | 0 | Env. Window: | NA |
| Cylo. | Gulf of Mexico | Reason for Window: | NA |
| | Gulf of | Award: | March 1, 2019 |
| | | | |

Galveston District - Dredging Meeting

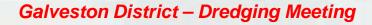


GULF INTRACOASTAL WATERWAY – CRANEY CREEK TO UPPER MATAGORDA BAY; BRAZOS RIVER CROSSING

2 OF 3

| Colorado River Locks Baxter Island |] |
|--|--------|
| 108 108-A | I |
| 109 108-A CE 110 109 108-A CE 110 110 110 110 110 110 110 110 110 11 | I |
| 112-A | l I |
| 112-A 112-B 113 112-C 114 Matagorda Bay | I |
| 113/ 112-C Matago | 7 |
| | 1 |
| 116 Mex |] |
| Gul) | 1 |
| INW ALL ROUTE Gulf of Mexico | |

| 6 | Project: | Gulf Intracoastal Waterway Caney Creek to Upper Matagorda Bay; Brazos River Crossing |
|------|-----------------------------|--|
| | Dredging Depth: | 14-16 ft. Required Depth |
| | Dredging Width: | 125 ft. |
| K | Dredging Length: | Varies |
| | Dredging Quantity: | 1,000,000 cubic yards |
| X0.7 | Material Type: | Fine Silt/Sand |
| 1 | Placement Area: | Open/Upland Confined |
| | Distance to Placement Area: | 2 Miles Avg. |
| | Type of Equipment: | Pipeline |
| | Env. Window: | NA |
| | Reason for Window: | NA |
| | Award: | March 1, 2019 |







GULF INTRACOASTAL WATERWAY – CRANEY CREEK TO UPPER MATAGORDA BAY; BRAZOS RIVER CROSSING

3 OF 3



| NAME OF THE PERSON OF THE PERS | Project: | Gulf Intracoastal Waterway Caney Creek to Upper Matagorda Bay; Brazos River Crossing |
|--|-----------------------------|---|
| 4 | Dredging Depth: | 16 ft. Required Depth |
| ý | Dredging Width: | 125 ft. |
| | Dredging Length: | Varies |
| | Dredging Quantity: | 1,000,000 cubic yards |
| | Material Type: | Fine Silt/Sand |
| | Placement Area: | Open/Upland Confined |
| | Distance to Placement Area: | 1 Miles Avg. |
| | Type of Equipment: | Pipeline |
| | Env. Window: | NA |
| | Reason for Window: | NA |
| | Award: | March 1, 2019 |





GULF INTRACOASTAL WATERWAY – ACROSS SAN ANTONIO BAY; MATAGORDA BAY TO CORPUS CHRISTI; MSC INTERSECTION

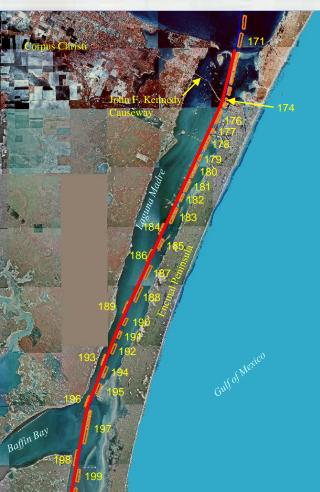
| | Precional President of the President of | Project: | GIWW - Across San Antonio Bay / Matagorda Bay to Corpus Christi; GIWW / MSC Intersection |
|--|--|-----------------------------|---|
| | | Dredging Depth: | 14-16 ft. Required Depth |
| | Sophist Sente Bis | Dredging Width: | 125 ft. |
| Turstake 2 t Island | | Dredging Length: | Varies |
| Site 'A' | | Dredging Quantity: | 1,000,000 cubic yards |
| and the state of t | Beneficial Use S | Material Type: | Fine Silt/Sand |
| Beneficial Use Site 'C' Breakwater | 130-A | Placement Area: | Open/Upland Confined/BU |
| | 130-B Beneficial Use Site "J" 131 January 133 132 | Distance to Placement Area: | 1 Miles Avg. |
| | Market 134 | Type of Equipment: | Pipeline |
| The state of the s | 136 | Env. Window: | NA |
| 138 138 139 149 150 150 | A Supplemental Control of the Contro | Reason for Window: | NA |
| 19 19 19 14 14 14 14 14 14 14 14 14 14 14 14 14 | Coll of | Award: | March 19, 2019 |
| College Married | | | ww |

Galveston District - Dredging Meeting





1 OF 3





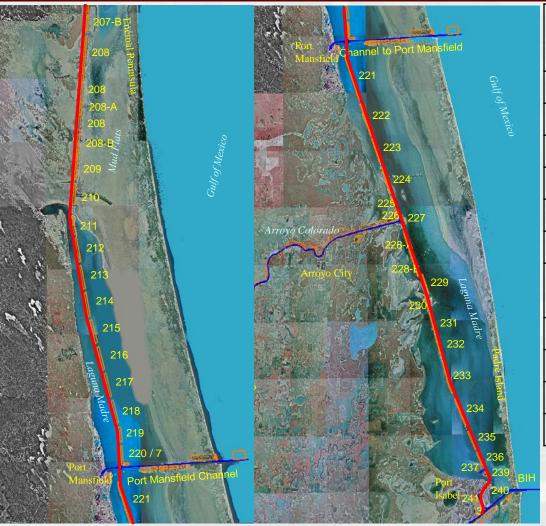
| Project: | Gulf Intracoastal Waterway Corpus Christi to Port Isabel/ Channel to Harlingen |
|-----------------------------|--|
| Dredging Depth: | 14 ft. Required Depth |
| Dredging Width: | 125 ft. |
| Dredging Length: | Varies |
| Dredging Quantity: | 1,500,000 cubic yards |
| Material Type: | Fine Silt/Sand |
| Placement Area: | Open/BU Sites |
| Distance to Placement Area: | 3 Miles Avg. |
| Type of Equipment: | Pipeline |
| Env. Window: | 1 Nov 28 Feb. |
| Reason for Window: | Seagrass |
| Award: | August 15, 2019 |







2 OF 3



| Project: | Gulf Intracoastal Waterway Corpus Christi to Port Isabel/ Channel to Harlingen |
|-----------------------------|--|
| Dredging Depth: | 14 ft. Required Depth |
| Dredging Width: | 125 ft. |
| Dredging Length: | Varies |
| Dredging Quantity: | 1,500,000 cubic yards |
| Material Type: | Fine Silt/Sand |
| Placement Area: | Open/BU Sites |
| Distance to Placement Area: | 3 Miles Avg. |
| Type of Equipment: | Pipeline |
| Env. Window: | 1 Nov 28 Feb. |
| Reason for Window: | Seagrass |
| Award: | August 15, 2019 |

Galveston District - Dredging Meeting





3 OF 3



| Standard Comment | Project: | Channel to Harlingen |
|------------------|-----------------------------|-----------------------|
| ON ACCOUNT | Dredging Depth: | 14 ft. Required Depth |
| | Dredging Width: | 125 ft. |
| 200,000 | Dredging Length: | Varies |
| | Dredging Quantity: | 1,500,000 cubic yards |
| | Material Type: | Fine Silt/Sand |
| | Placement Area: | Upland |
| | Distance to Placement Area: | 3 Miles Avg. |
| | Type of Equipment: | Pipeline |
| • | Env. Window: | 1 Mar. – 31 Aug. |
| | Reason for Window: | Nesting Birds |
| | Award: | August 15, 2019 |

Galveston District – Dredging Meeting



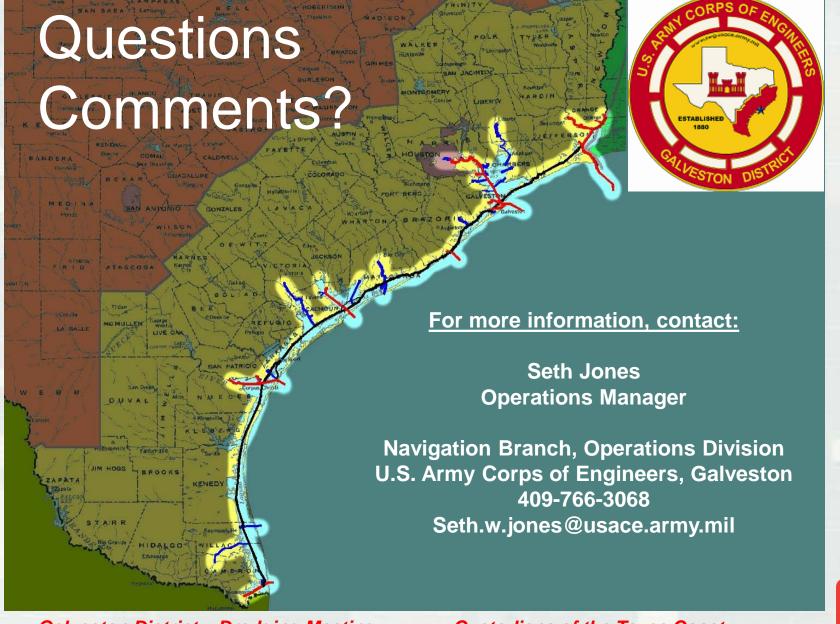


GULF INTRACOASTAL WATERWAY – HIGH ISLAND TO ROLLOVER; BOLIVAR FLARE; CHANNEL TO PORT BOLIVAR



| Project: | GIWW - High Island to Rollover; Bolivar Flare; Channel to Port Bolivar |
|-----------------------------|--|
| Dredging Depth: | 15 ft. Required Depth |
| Dredging Width: | 125 ft. |
| Dredging Length: | Varies |
| Dredging Quantity: | 800,000 cubic yards |
| Material Type: | Fine Silt/Sand |
| Placement Area: | Open/Upland Confined/BU |
| Distance to Placement Area: | 1 Miles Avg. |
| Type of Equipment: | Pipeline |
| Env. Window: | NA |
| Reason for Window: | NA |
| Award: | September 17, 2019 |







Cedar Bayou

Ashton Burgin

Operations Manager Navigation Branch 31 October 2017

Galveston District - Dredging Meeting

Custodians of the Texas Coast



US Army Corps of Engineers
BUILDING STRONG®



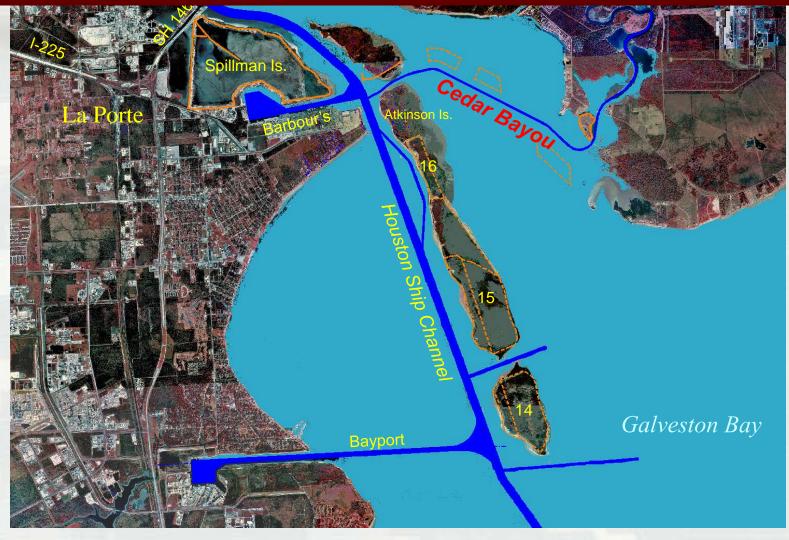


SHALLOW DRAFT TRIBUTARIES FY18 CONTRACT SCHEDULE





HOUSTON SHIP CHANNEL TRIBUTARIES CEDAR BAYOU



Galveston District - Dredging Meeting





CEDAR BAYOU



| | Project: | Cedar Bayou |
|----|-----------------------------|-----------------------|
| | | |
| | Dredging Depth: | 12 ft. Required Depth |
| | Dredging Width: | 100 ft. |
| N. | Dredging Length: | Varies |
| | Dredging Quantity: | 680,000 cubic yards |
| | Material Type: | Silt/Sand |
| | Placement Area: | Open water |
| | Distance to Placement Area: | 4 Mile Avg. |
| | Type of Equipment: | Pipeline Dredge |
| | Env. Window: | NA |
| | Reason for Window: | NA |
| | Start Date: | November 1, 2018 |
| | Est. Completion Date: | February 12, 2019 |









Brazos River Floodgates, Colorado River Locks & Mooring Buoy Maintenance

Eric Russek, P.E.

Operations Manager Project Operations Br, Galveston 31 October 2017

Galveston District – Dredging Meeting

Custodians of the Texas Coast



US Army Corps of Engineers
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Navigation Project Facilities



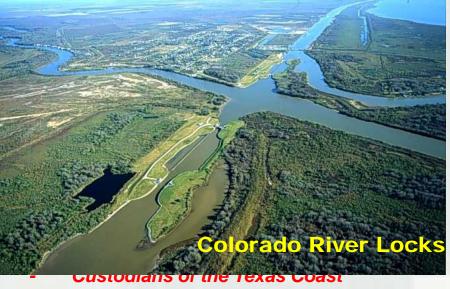


Navigation Project Facilities



Minimize shoaling at river crossings

Safety





FY 2018 Contract Brazos River Floodgates And Colorado River Locks



GULF INTRACOASTAL WATERWAY BRFG & CRL Consolidated Repairs



| Brazos River Flood Gates and Colorado River Locks | Consolidated Repairs |
|--|------------------------------------|
| Dredging Depth: | NA |
| Dredging Width: | NA |
| Dredging Length: | NA |
| Dredging Quantity: | NA |
| Material Type: | NA |
| Placement Area: | NA |
| Type of Equipment: | Structural and Building Components |
| Env. Window: | NA |
| Reason for Window: | NA |
| Est. Start Date: | July 23, 2018 |
| Est. Completion Date: | January 19, 2019 |

Galveston District - Dredging Meeting



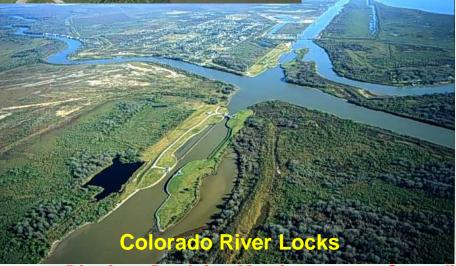
FY 2019 Contract Brazos River Floodgates And Colorado River Locks





GULF INTRACOASTAL WATERWAY BRFG & CRL Consolidated Repairs

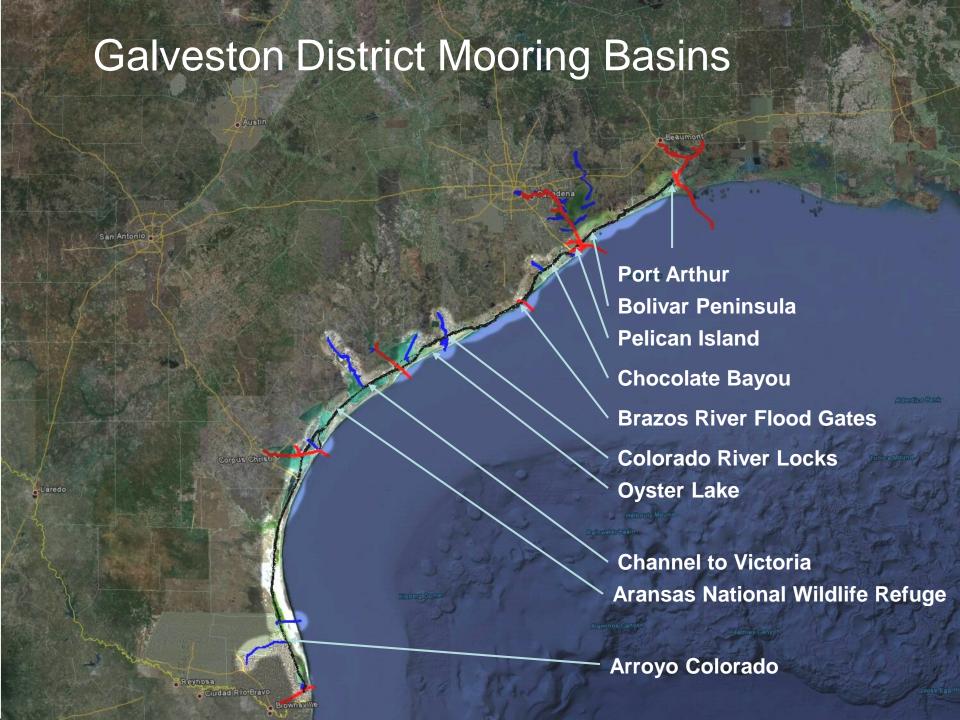




| Brazos River Flood Gates and Colorado River Locks | Consolidated Repairs |
|--|------------------------------|
| Dredging Depth: | NA |
| Dredging Width: | NA |
| Dredging Length: | NA |
| Dredging Quantity: | NA |
| Material Type: | NA |
| Placement Area: | NA |
| Type of Equipment: | Miscellaneous Facility Items |
| Env. Window: | NA |
| Reason for Window: | NA |
| Est. Start Date: | 3 rd Quarter FY19 |
| Est. Completion Date: | 1st Quarter FY20 |

Galveston District - Dredging Meeting





Mooring Buoy UpdateGIWW

Buoy Procurement

 Twenty of 50 buoys from last Contract have been received and will be deployed in buoy re-spacing project. Anticipate the remaining 30 buoys delivered within the next 60-120 days

Buoy Re-Spacing

- USACE Wilmington District marine crew (M/V Snell) re-spacing and installing buoys at 5 priority basins: BRFG, CRL, Pelican Island, Bolivar Peninsula and Port Arthur. BRFG and CRL are complete.
- M/V Snell and crew performing additional marine work within Galveston District boundaries

Truston Buoy Repairs

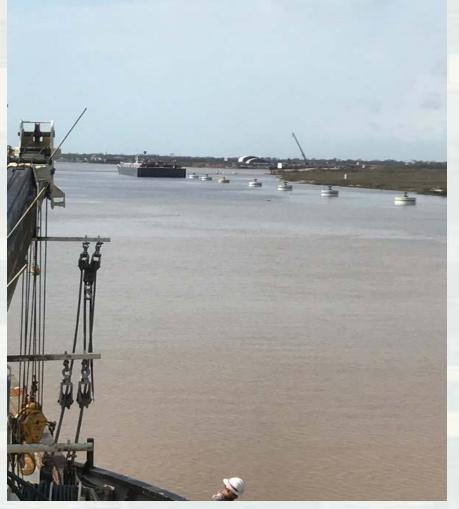
- Forensic investigation of buoys was performed at contractor's facility and resulted in problem identification
- Contractor and USACE have determined a solution, design, and share in the cost for retrofitting the buoys such that they can be safely deployed

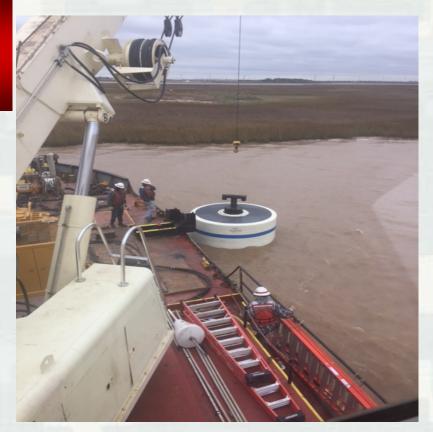
Buoy Maintenance Service Contract

- Task Orders awarded in August 2017 under a Blanket Purchase Agreement
- React faster to buoy needs and provide for ability to address multiple basins concurrently



Brazos River Flood Gates Freeport, Texas





A total of 36 buoys have been respaced to 150' on center and installed at BRFG – 9 buoys per bank









Colorado River Locks Matagorda, Texas

A total of 40 buoys have been re-spaced to 150' on center and installed at CRL – 10 buoys per bank





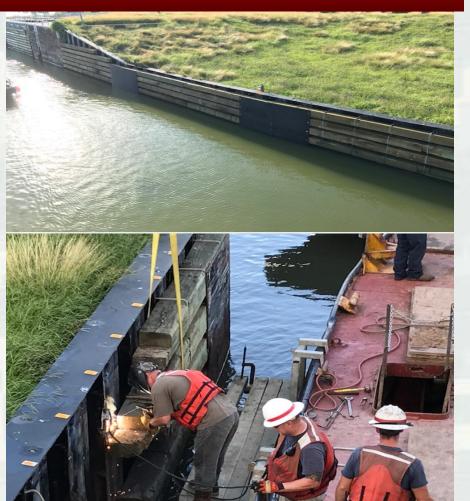
Rivers US Geological Survey Pile Clusters for Data Collection Platforms

Two six-pile clusters were installed for the USGS Data Collection Platforms (DCPs) in the Brazos and Colorado Rivers. A total of five, three-pile clusters were installed in front of the Brazos DCP to deflect debris travelling down river.

Galveston District - Dredging Meeting



Colorado River Locks Guidewall Repairs







Galveston District - Dredging Meeting

Custodians of the Texas Coast

Brazos River Flood Gates Boathouse Dredging





Over 1,500 CY of dredged material (approximately 6' thick) and 3 tons of debris were removed from the BRFG boathouse

Galveston District - Dredging Meeting





US Fish and Wildlife Service Port O'Connor, Texas

A total of fifteen, 40' long pilings were installed at the USFWS boat basin after removing existing, deteriorated pilings











Navigation Project Facilities



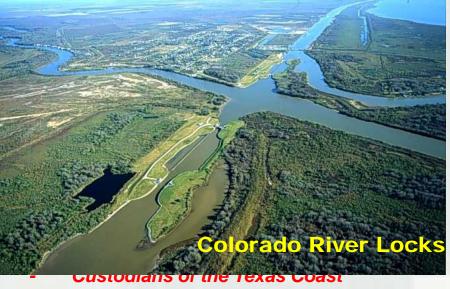


Navigation Project Facilities



Minimize shoaling at river crossings

Safety





FY 2018 Contract Brazos River Floodgates And Colorado River Locks



GULF INTRACOASTAL WATERWAY BRFG & CRL Consolidated Repairs



| Brazos River Flood Gates and Colorado River Locks | Consolidated Repairs |
|--|------------------------------------|
| Dredging Depth: | NA |
| Dredging Width: | NA |
| Dredging Length: | NA |
| Dredging Quantity: | NA |
| Material Type: | NA |
| Placement Area: | NA |
| Type of Equipment: | Structural and Building Components |
| Env. Window: | NA |
| Reason for Window: | NA |
| Est. Start Date: | July 23, 2018 |
| Est. Completion Date: | January 19, 2019 |

Galveston District - Dredging Meeting



FY 2019 Contract Brazos River Floodgates And Colorado River Locks





GULF INTRACOASTAL WATERWAY BRFG & CRL Consolidated Repairs

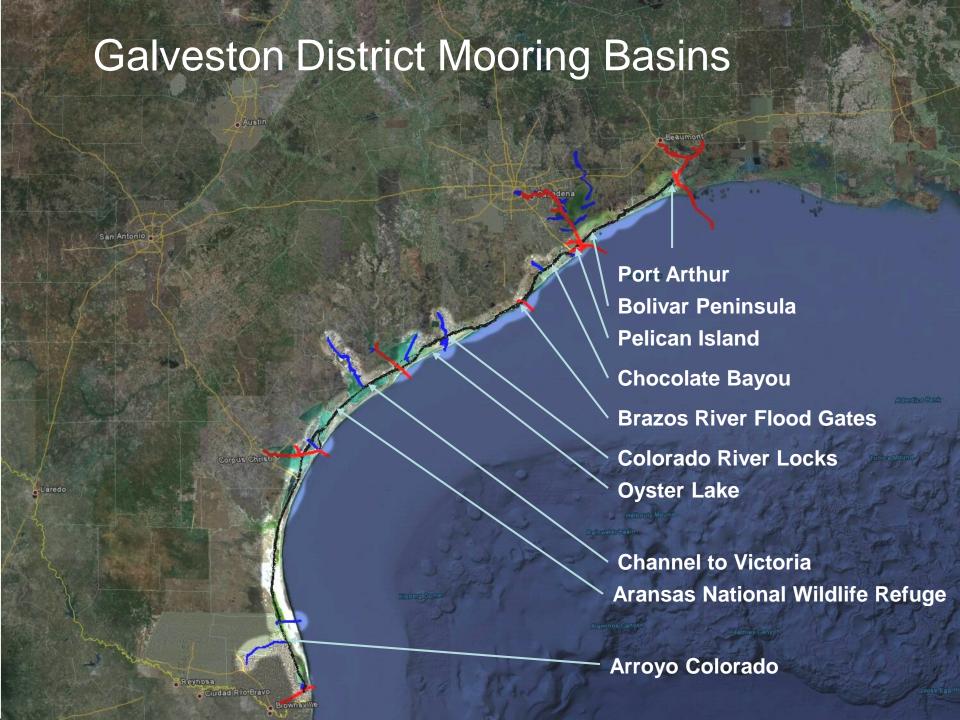


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| Brazos River Flood Gates and Colorado River Locks | Consolidated Repairs |
|--|------------------------------|
| Dredging Depth: | NA |
| Dredging Width: | NA |
| Dredging Length: | NA |
| Dredging Quantity: | NA |
| Material Type: | NA |
| Placement Area: | NA |
| Type of Equipment: | Miscellaneous Facility Items |
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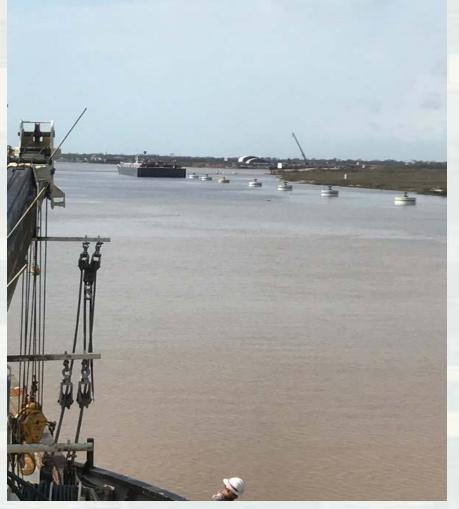
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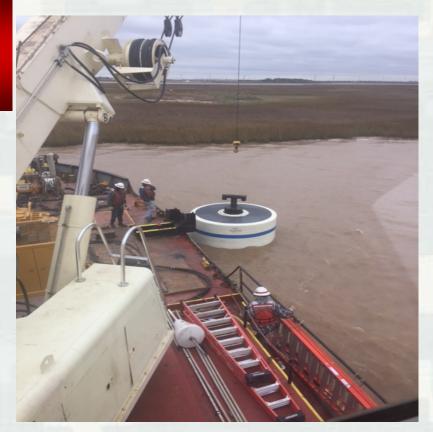
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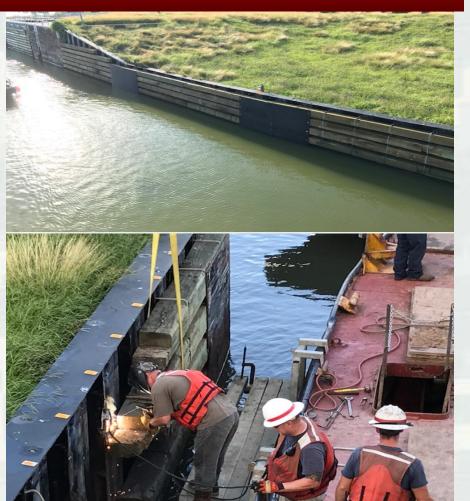
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