



Houston Ship Channel Expansion Project 11

Dredging Industry Notification and Update

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Houston Ship Channel Expansion Project 11

TODAY'S AGENDA:

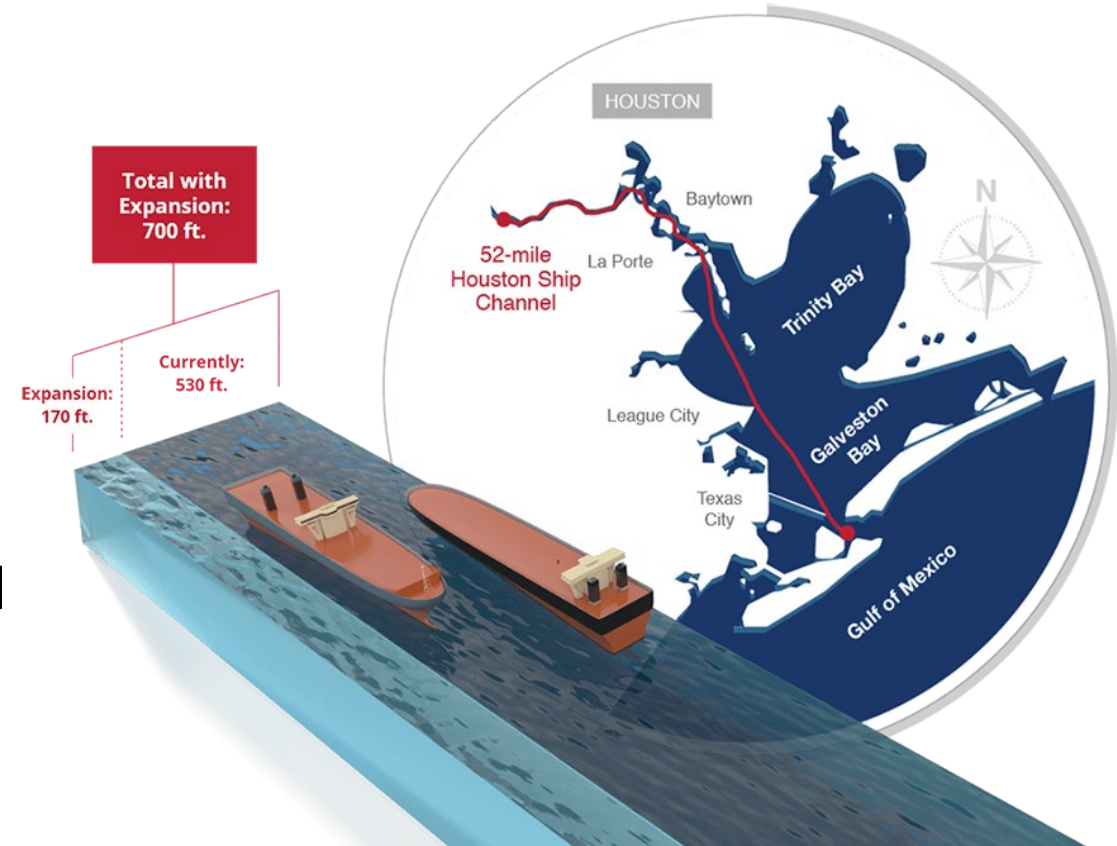
- Meeting Introduction, **Leslie Hollaway** (Hollaway)
- Project Introduction and Overview, **Richard Byrnes** and **Lori Brownell** (PortHouston)
- Overview of Project Design Packages, the Project Delivery Team, **Chester Hedderman** (Gahagan & Bryant-AECOM) and **Neil McLellan** (HDR Engineering)
- Questions, facilitated by **Leslie Hollaway**

Dredging Industry Notification and Update

Purpose:

To inform the dredging industry of the Houston Ship Channel Expansion Channel Improvement Project (Project 11)

- Provide current schedule, relative size, and project location
- Allow the dredging industry to ask questions and determine interest in the project
- **This information does not initiate any type of procurement**

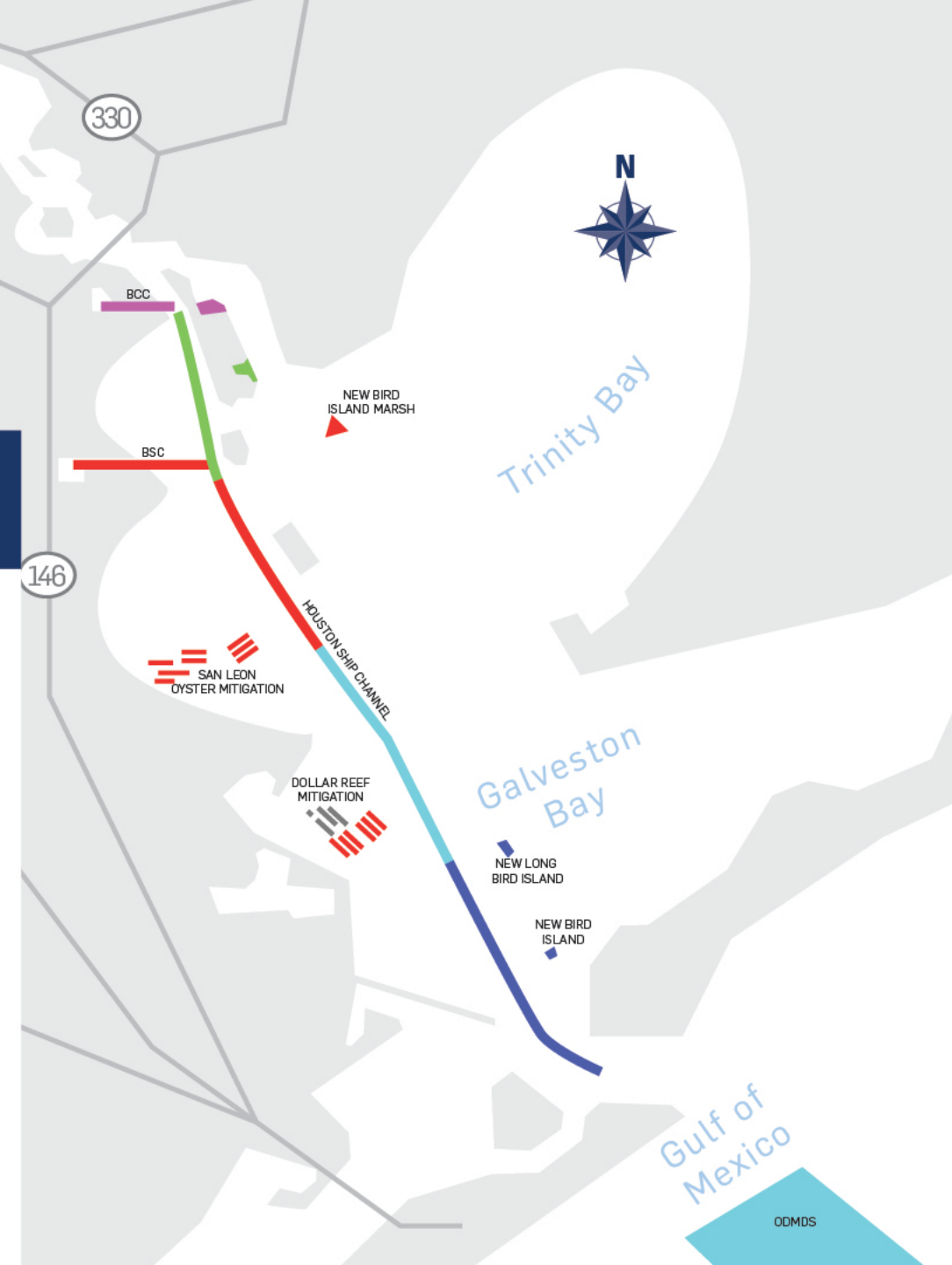


Project 11 is under design; therefore, this information is subject to change and some details may not be available at this time.

Project 11 Design Packages

NOTE: Map is not to scale and is purely representational

-  1. BOLIVAR ROADS TO REDFISH REEF - DOLLAR REEF MITIGATION
-  2. BOGGY BAYOU TO SIMS BAYOU - BELTWAY 8 PREPARATION
-  3. BOLIVAR ROADS TO REDFISH REEF HSC STA 138+369 TO 100+000
-  4. REDFISH HSC STA 100+000 TO 57+00
-  5. REDFISH TO BAYPORT (BEACON 76) HSC STA 57+00 TO 28+605 & BSC STA 241+87.21 TO 25+58.69
-  6. BAYPORT (BEACON 76) TO MORGANS POINT HSC STA 28+605 TO 0+00
-  7. BARBOURS CUT STA 10+00 TO 67+10.85
-  8. BOGGY BAYOU TO HUNTING BAYOU TURNING BASIN CONSTRUCT PLACEMENT AREAS
-  9. BOGGY BAYOU TO HUNTING BAYOU TURNING BASIN HSC STA 684+03.19 TO 930+00
-  10. SIMS TO TURNING BASIN - GLENDALE PA PREPARATION
-  11. SIMS TO TURNING BASIN - FILTERBED PA PREPARATION
-  12. SIMS TO TURNING BASIN HSC STA 1110+77.54 TO 1266+48 AND MAIN TB STA 00+00 TO 30+95.06



Proposed Project Implementation

Project 11 – Construction

Packages:

- Packages 1 – 9 advertised during the first quarter of 2021
- Packages 10-12 advertised in 2023 or after



Package Development and Construction



Packages 2 - 9:
Designed and managed
by Port Houston Authority



Package 1:
Designed by Port Houston
Authority/ U.S. Army Corps of
Engineers and managed by U.S.
Army Corps of Engineers
(Galveston District)

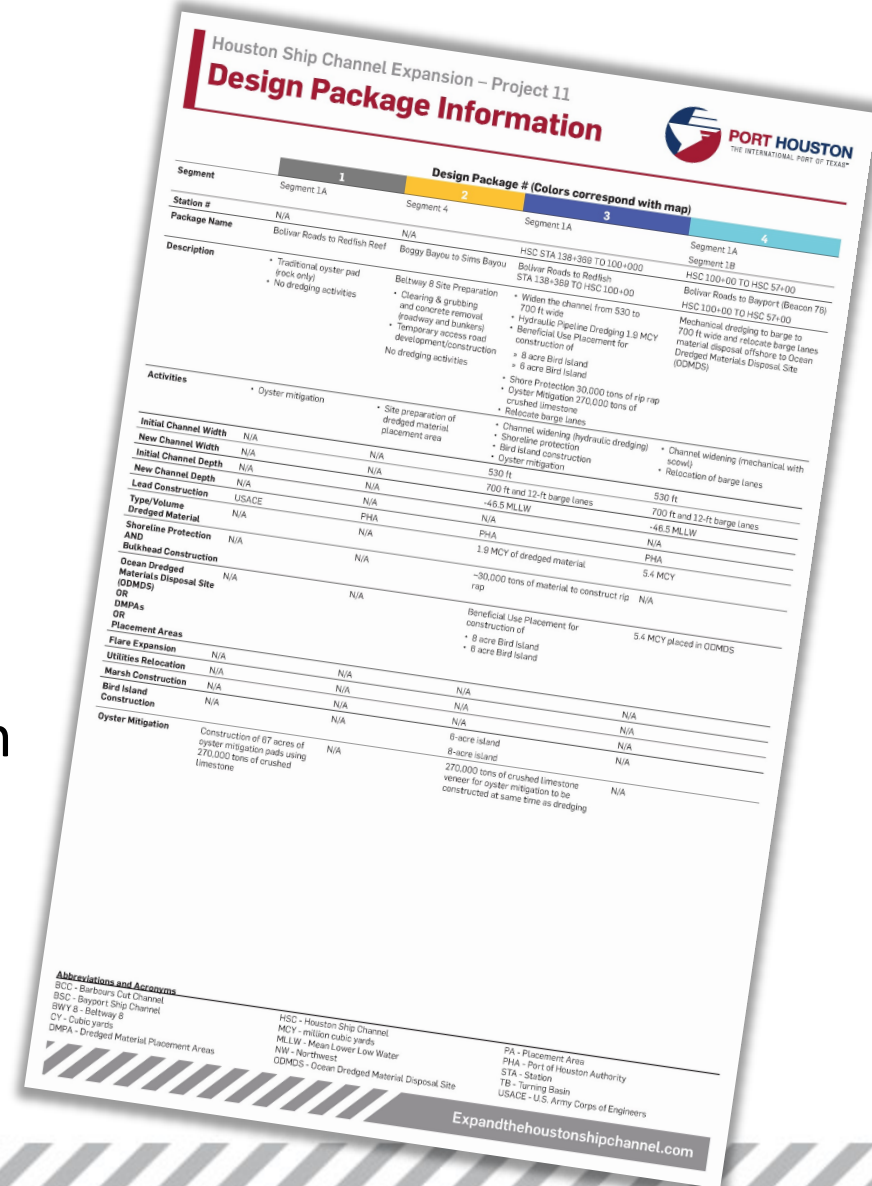
Packages 10 - 12:
Designed and
managed by the
U.S. Army Corps of Engineers (Galveston
District)



Project Activities

- Channel Widening and Deepening
- Dredged Material Placement Areas (DMPA) Construction (new development)
- Shoreline Protection
- Cutoff Wall Construction (currently one wall)
- Marsh, Bird Island, and Oyster Reef Construction (using dredged material)

For more details, please refer to the design package handout



The handout is titled "Houston Ship Channel Expansion - Project 11 Design Package Information". It features the Port Houston logo and a color-coded map of the project segments. The table below summarizes the key activities and specifications for each segment.

Segment	1	2	3	4
Station #	Segment 1A	Segment 4	Segment 1A	Segment 1A
Package Name	Bolivar Roads to Redfish Reef	N/A	HSC STA 138+369 TO HSC 100+00	Segment 1B
Description	• Traditional oyster pad (rock only) • No dredging activities	Beltway 8 Site Preparation • Clearing & grubbing and concrete removal (roadway and bunks) • Temporary access road development/construction • No dredging activities	Bolivar Roads to Redfish STA 138+369 TO HSC 100+00 • Widening the channel from 530 to 700 ft wide • Hydraulic Pipeline Dredging 1.9 MCY • Beneficial Use Placement for construction of • 8 acre Bird Island • 8 acre Bird Island • Shore Protection 30,000 tons of rip rap • Oyster Mitigation 270,000 tons of crushed limestone • Relocate barge lanes	HSC 100+00 TO HSC 57+00 Bolivar Roads to Bayport (Beacon 78) • Mechanical dredging to barge to material disposal offshore to Ocean Dredged Materials Disposal Site (ODMDS)
Activities	• Oyster mitigation	• Site preparation of dredged material placement area	• Channel widening (hydraulic dredging) • Shoreline protection • Bird Island construction • Oyster mitigation	• Channel widening (mechanical with scow) • Relocation of barge lanes
Initial Channel Width	N/A	N/A	530 ft	530 ft
New Channel Width	N/A	N/A	700 ft and 12-ft barge lanes	700 ft and 12-ft barge lanes
Initial Channel Depth	N/A	N/A	-46.5 MLLW	-46.5 MLLW
New Channel Depth	N/A	N/A	N/A	N/A
Lead Construction	USACE	PHA	PHA	PHA
Type/Volume Dredged Material	N/A	N/A	1.9 MCY of dredged material	5.4 MCY
Shoreline Protection AND Bulkhead Construction	N/A	N/A	~30,000 tons of material to construct rip rap	N/A
Ocean Dredged Materials Disposal Site (ODMDS) OR DMPAs OR Placement Areas	N/A	N/A	Beneficial Use Placement for construction of • 8 acre Bird Island • 8 acre Bird Island	5.4 MCY placed in ODMDS
Flare Expansion	N/A	N/A	N/A	N/A
Utilities Relocation	N/A	N/A	N/A	N/A
Marsh Construction	N/A	N/A	N/A	N/A
Bird Island Construction	N/A	N/A	N/A	N/A
Oyster Mitigation	Construction of 67 acres of oyster mitigation pads using 270,000 tons of crushed limestone	N/A	6-acre island 8-acre island 270,000 tons of crushed limestone veneer for oyster mitigation to be constructed at same time as dredging	N/A

Abbreviations and Acronyms
BCC - Barbours Cut Channel
BSC - Bayport Ship Channel
BWY 8 - Beltway 8
CY - Cubic yards
DMPA - Dredged Material Placement Areas
HSC - Houston Ship Channel
MCY - million cubic yards
MLLW - Mean Lower Low Water
NW - Northwest
ODMDS - Ocean Dredged Material Disposal Site
PA - Placement Area
PHA - Port of Houston Authority
STA - Station
TB - Turning Basin
USACE - U.S. Army Corps of Engineers

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Package 1

Bolivar Roads to Redfish Reef *Mitigation package*

- Dollar Reef Oyster Mitigation
- Standard rock construction using 270,000 tons of crushed limestone/no dredging activities
- New work dredging impacts to Segment 1A addressed
- Potential to bundle with Package 3



Package 2

Boggy Bayou to Taylors Bayou

- Preparations - clearing, grubbing, and concrete demolition, temporary access road construction for the Beltway 8 DMPA site
- Approximately 650 acres to be cleared and prepped:
 - Approximately 31,000 tons of concrete to be removed (21,000 tons are bunkers & 10,000 tons are pavement)
 - No dredging activities



Package 3

Bolivar Roads to Redfish

Station 138+369 TO HSC 100+00

- Channel widening: 530 to 700 feet wide (hydraulic dredging)
 - Excavating 1.9 MCY of dredged material
- Shoreline protection
 - 30,000 tons of material for rip rap
- Bird island construction:
 - 8-acre island
 - 6-acre island
- Oyster mitigation
 - 270,000 tons of crushed limestone utilized



Package 4

Redfish

Station HSC 100+00 TO HSC 57+00

- Channel widening: 530 to 700 feet wide (mechanical dredging)
 - Excavating 5.4 MCY of material
- Offshore material disposal to Ocean Dredged Material Disposal Site (ODMDS)
- Relocation of barge lanes



Package 5

Redfish to Bayport (Beacon 76)

HSC Station 57+00 TO HSC STA 28+605 &
BSC Station 24+187.21 TO BSC STA 2+558.69

- Channel widening from 530 feet to 700 feet (HSC) and 350/400 feet to 455 feet wide (BSC) (hydraulic dredging)
 - Excavating 7.3 MCY (5.2 MCY HSC, 2.1 MCY BSC) of dredged material
- Relocation of barge lanes (HSC)
- Shoreline Protection
- Construct bird island/marsh complex and oyster mitigation beds



Package 5 Continued



Bulkhead and Mitigation Specifications

- Shoreline protection
 - 95,000 tons of material to construct rip rap
- Construction of 400-acre Marsh/Bird Island Complex with dredged material
- Oyster mitigation
 - 400,000 tons of crushed limestone for 20 oyster mitigation pads placed as a veneer on a raised bed constructed with dredged material



Package 6

Bayport (Beacon 76) to Morgan's Point

HSC Station 28+605 to HSC Station 27+48.18

- Channel widening from 530 to 700 feet wide(hydraulic dredging)
- Relocation of barge lanes (HSC)
 - Excavating 4.2 MCY of dredged material
- Construction of Marsh Cell 11 and repair of existing dikes
- Shoreline protection



Package 7

Barbours Cut Ship Channel

Station BSC 10+00 TO BSC 67+10.85

- Channel widening (BCS) up to 455-ft wide (hydraulic dredging)
- Entrance flare expansion
- Placement of 2.6 MCY of material to construct Marsh Cell 12
- Demolition of existing structures (as needed)
- Shoreline Protection



Package 7 Continued



Shoreline Protection – Spilman Island

- 3,400 linear feet of bulkhead (sheet pile cutoff walls)
- 1,700-linear-foot cantilevered NZ 38 steel sheet piles (-65-foot tip elevation)
- 1,800 feet Cantilevered PAZ 48 / NZ 38 Combi-wall (-90-foot tip elevation)
- Concrete pile cap shoreline protection at ends



Package 7 Continued



Specifications and Flare Expansion

- Length – 5,800 feet
- Volume – 2.6 million cubic yards
- Expanding North Flare (15+28 to STA 23+87) and South Flare (STA 8+77 to STA 31+98) to accommodate a 1,800-foot diameter turning basin



Package 8

Boggy Bayou to Hunting Bayou Turning Basin

HSC STA 684+03.19 TO HSC STA 930+00

- Construct placement areas for one-time use at Beltway 8 and East-East Clinton
- No dredging activities



Package 8 Continued



Placement Area Specifications

- East Clinton 2 (EC2)
 - DMPA Construction (180,000 cubic yards)
 - Capacity of 2 million cubic yards
- Beltway 8 (BW8)
 - DMPA Construction (190,000 cubic yards)
 - Capacity of 2.2 million cubic yards



Package 9

Boggy Bayou to Hunting Bayou Turning Basin

HSC STA 684+03.19 TO HSC STA 930+00

- Channel improvements:
 - Boggy to Greens at 46.5-ft MLLW and 530-feet (widening and deepening)
 - Greens to Hunting at existing federal width to 46.5-ft MLLW (deepening)



Package 10 (Future Work)

Sims to Turning Basin

- Site preparation to receive new work material from Segment 5:
 - Raise dikes at Glendale DMPA



Package 11 (Future Work)

Sims to Turning Basin

- Site preparation to receive new work material from Segment 6:
 - Raise dikes at Filterbed DMPA



Package 12 (Future Work)

Sims to Turning Basin

- HSC hydraulic new work dredging to deepen the channel from Sims Bayou to the Main Turning Basin as follows:
 - Segment 5 HSC hydraulic NW dredging to deepen channel from Sims Bayou to I-610 Bridge with placement into Glendale DMPA
 - Segment 6 HSC hydraulic NW dredging to deepen channel from I-610 Bridge to Main Turning Basin with placement into Filterbed DMPA



More Information and Contact Us



Visit the Project 11 Resource Page

<https://www.expandthehoustonshipchannel.com/>



Email the Project Team

ChannelImprovement@PortHouston.com

