



US Army Corps  
of Engineers®

# USACE P3 Pilot Project BIH Channel Improvement Project

**PORT OF**  
**BROWNSVILLE**  
*the port that works*



**Mr. Ariel Chávez, P.E./R.P.L.S.**  
**Director of Engineering Services**  
**Port of Brownsville**

## Port of Brownsville

- Largest land-owning port in the U.S. with over 40,000 Ac.
- We are a major petroleum export facility.
- We ship more steel to Mexico than any U.S. port.

- We are home to the largest domestic offshore Oil Rig and Platform manufacturer.
- We are the only Jones-Act ship building facility in Texas.



# Port of Brownsville

- The BIH is a man-made Navigation Channel 17 miles in length
- The approach into the Channel is 3.2 miles long.



**PORT OF BROWNSVILLE**  
the port that works

## Port of Brownsville

- We operate FTZ No. 62, ranked number 2 out of 195 nationally for the value of exported goods

- We currently have over \$43 Billion worth of new construction projects in the horizon, including:
  - 3 proposed LNG liquefaction plants, all in final FERC permitting
  - An LEED certified electric arc steel mill.



**Port of  
Brownsville  
circa 1938**



**Port of  
Brownsville  
now 2019**



**The Brazos Island Harbor (BIH) Channel Deepening project is authorized by the U.S. Congress in the 2014 USACE Chief's Report and the 2016 WRDA Act. In addition to broad community and industry support, the BIH enjoys the benefit of strong legislative support.**



# P3 Pilot Program

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**In June of this year, the US Army Corps of Engineers announced the selection of the BIH Channel Improvement Project as one of four nationwide to be among the USACE's P3 Pilot Program.**

## **P3 PROGRAM CRITERION**

## **BIH PROJECT**

**A) Construction cost in excess of \$50 million**



**B) Has non-federal sponsor support**



**C) Includes design, build, finance, operation and maintenance (DBFOM) or some combination thereof for federally authorized projects**



**D) Accelerates project delivery**

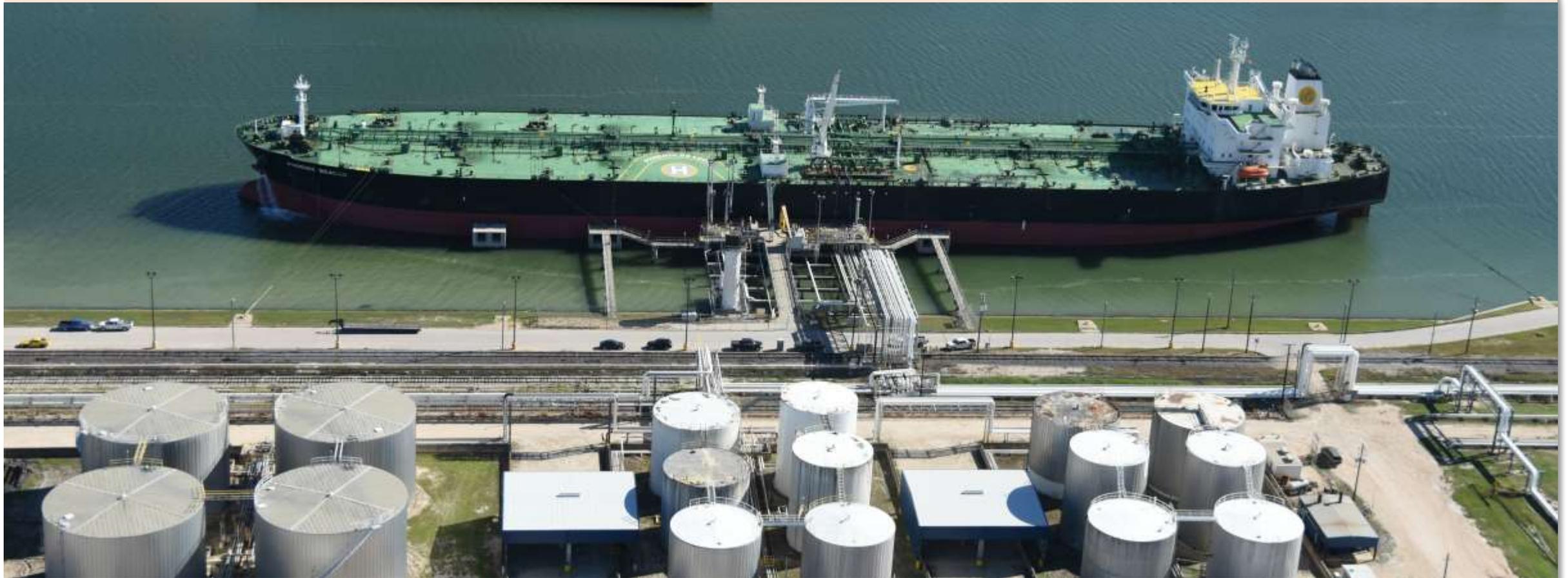


**E) Has the ability to generate revenue or leverage non-federal funding sources**



**The BIH project is an achievable P3 project and is the most affordable.**

**It will deepen the Port of Brownsville Ship Channel from 42 feet to 52 feet. The USACE estimates the P3 model will design, build and finance the project and the savings will be over \$120 million by the time it is completed in 2024.**



# Deepening project will be executed in 2 Phases

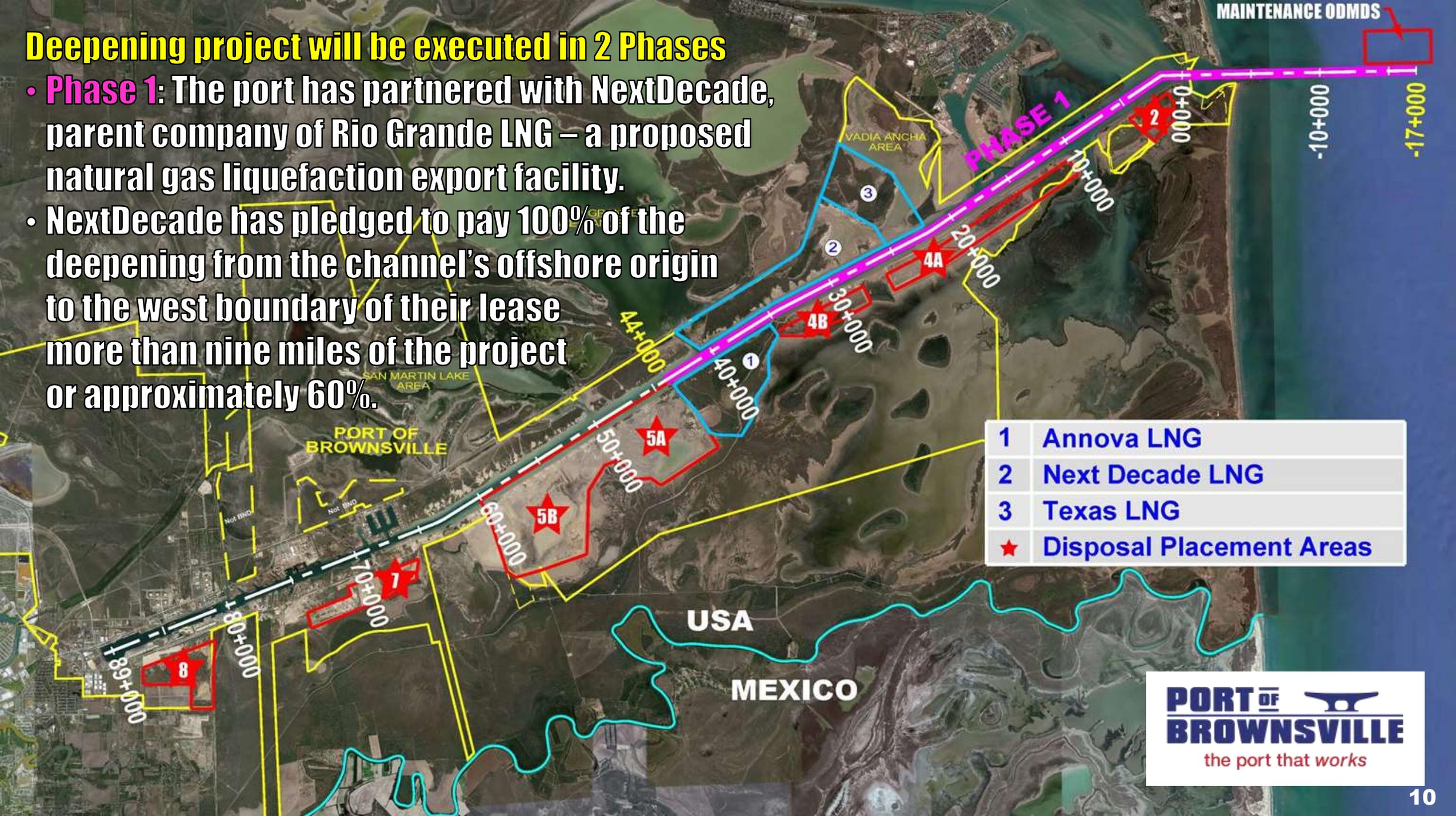
- Phase 1:** The port has partnered with NextDecade, parent company of Rio Grande LNG – a proposed natural gas liquefaction export facility.



1	Annova LNG
2	Next Decade LNG
3	Texas LNG
★	Disposal Placement Areas

## Deepening project will be executed in 2 Phases

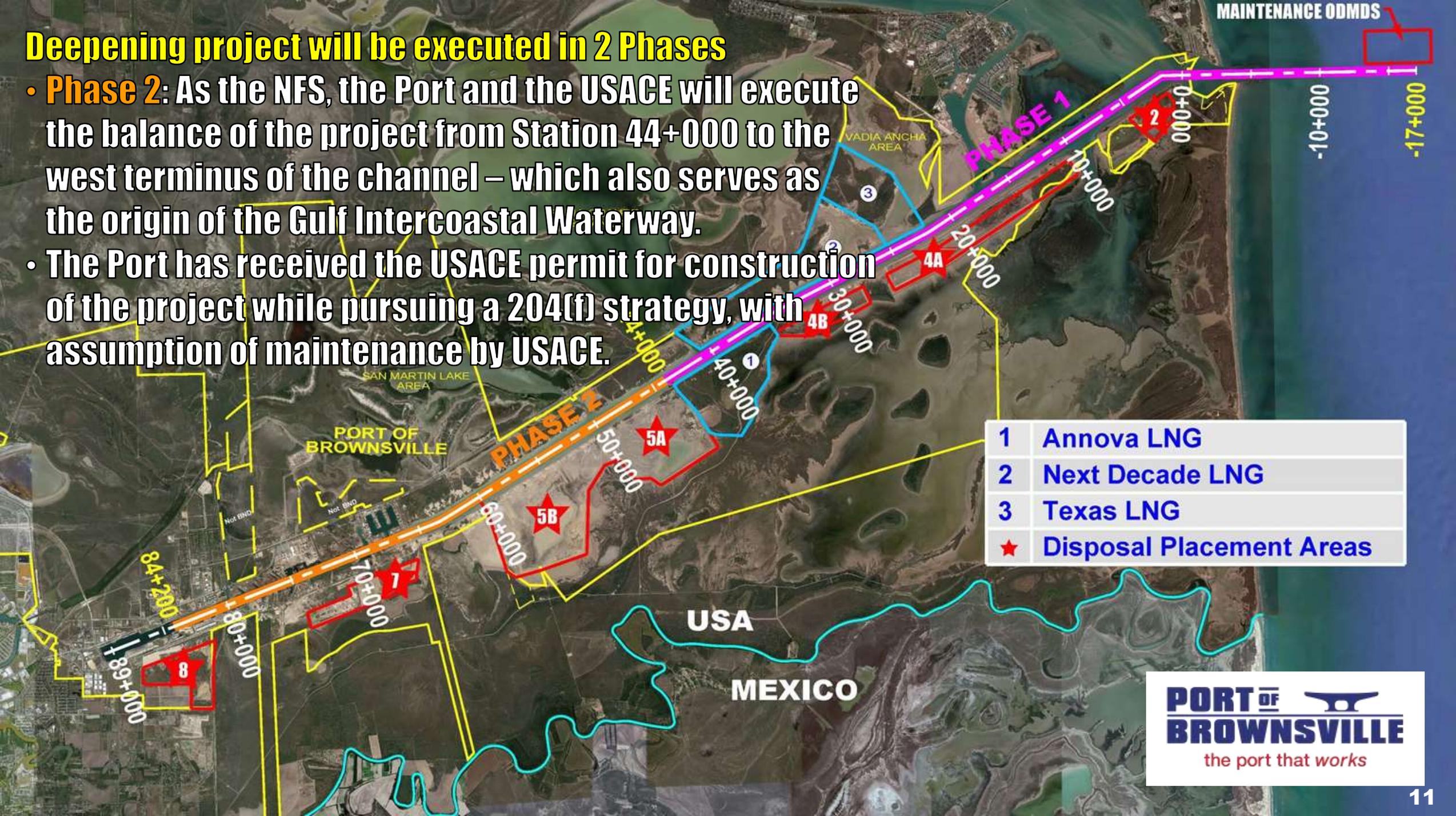
- **Phase 1:** The port has partnered with NextDecade, parent company of Rio Grande LNG – a proposed natural gas liquefaction export facility.
- NextDecade has pledged to pay 100% of the deepening from the channel's offshore origin to the west boundary of their lease more than nine miles of the project or approximately 60%.



1	Annova LNG
2	Next Decade LNG
3	Texas LNG
★	Disposal Placement Areas

## Deepening project will be executed in 2 Phases

- **Phase 2:** As the NFS, the Port and the USACE will execute the balance of the project from Station 44+000 to the west terminus of the channel – which also serves as the origin of the Gulf Intercoastal Waterway.
- The Port has received the USACE permit for construction of the project while pursuing a 204(f) strategy, with assumption of maintenance by USACE.



1	Annova LNG
2	Next Decade LNG
3	Texas LNG
★	Disposal Placement Areas



# Deepening project will be executed in 2 Phases

- **Bend Easing:** The Port is currently working with our LNG partners on a permit to ease the bend in the channel to facilitate movements by the LNG vessels.

**BEND EASING**

MAINTENANCE ODMS

**PHASE 1**

000+0

10+000

20+000

-10+000

-17+000

BAHIA GRANDE WETLANDS

DIABLA ANCHA AREA

# BEND EASING

2

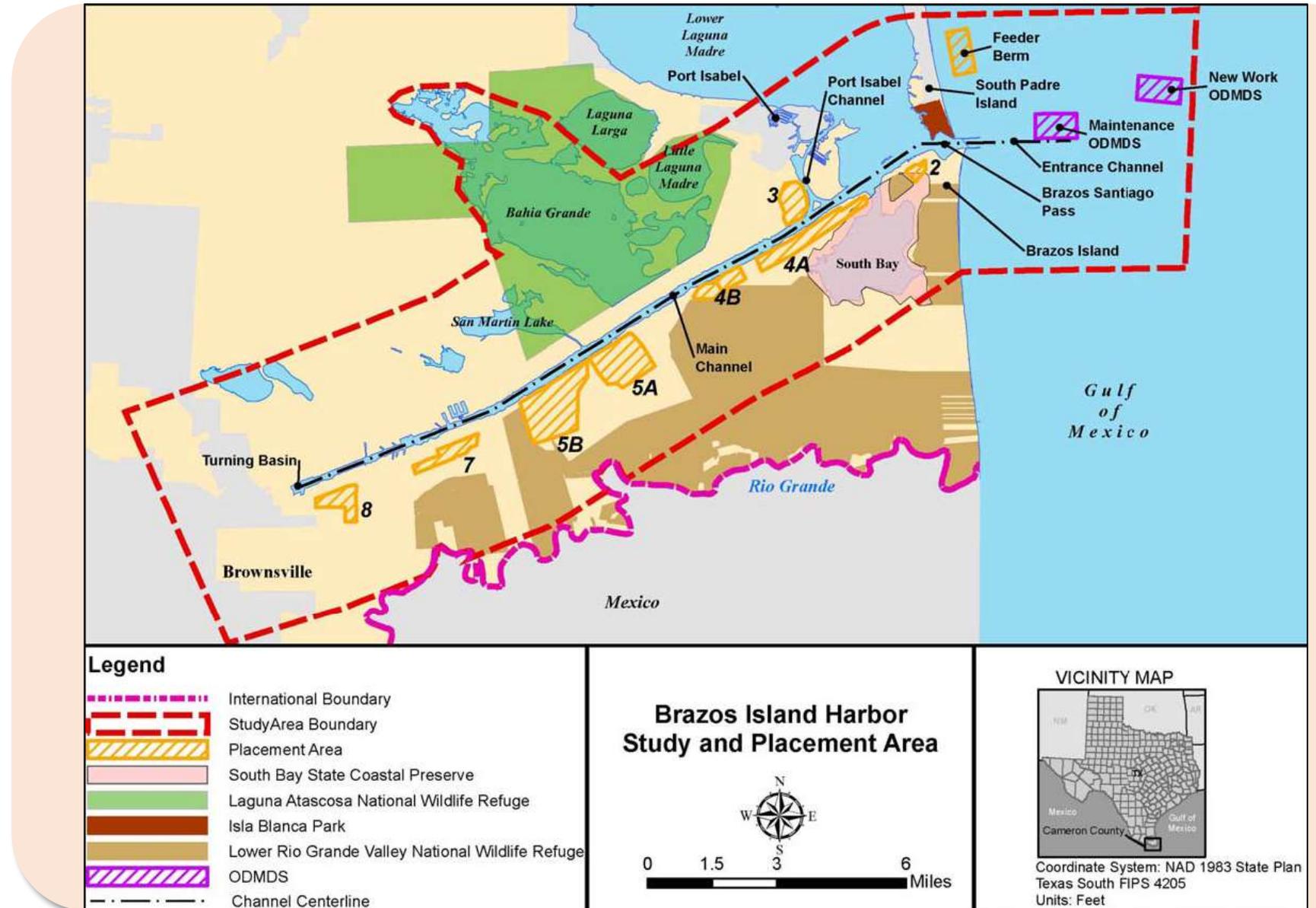
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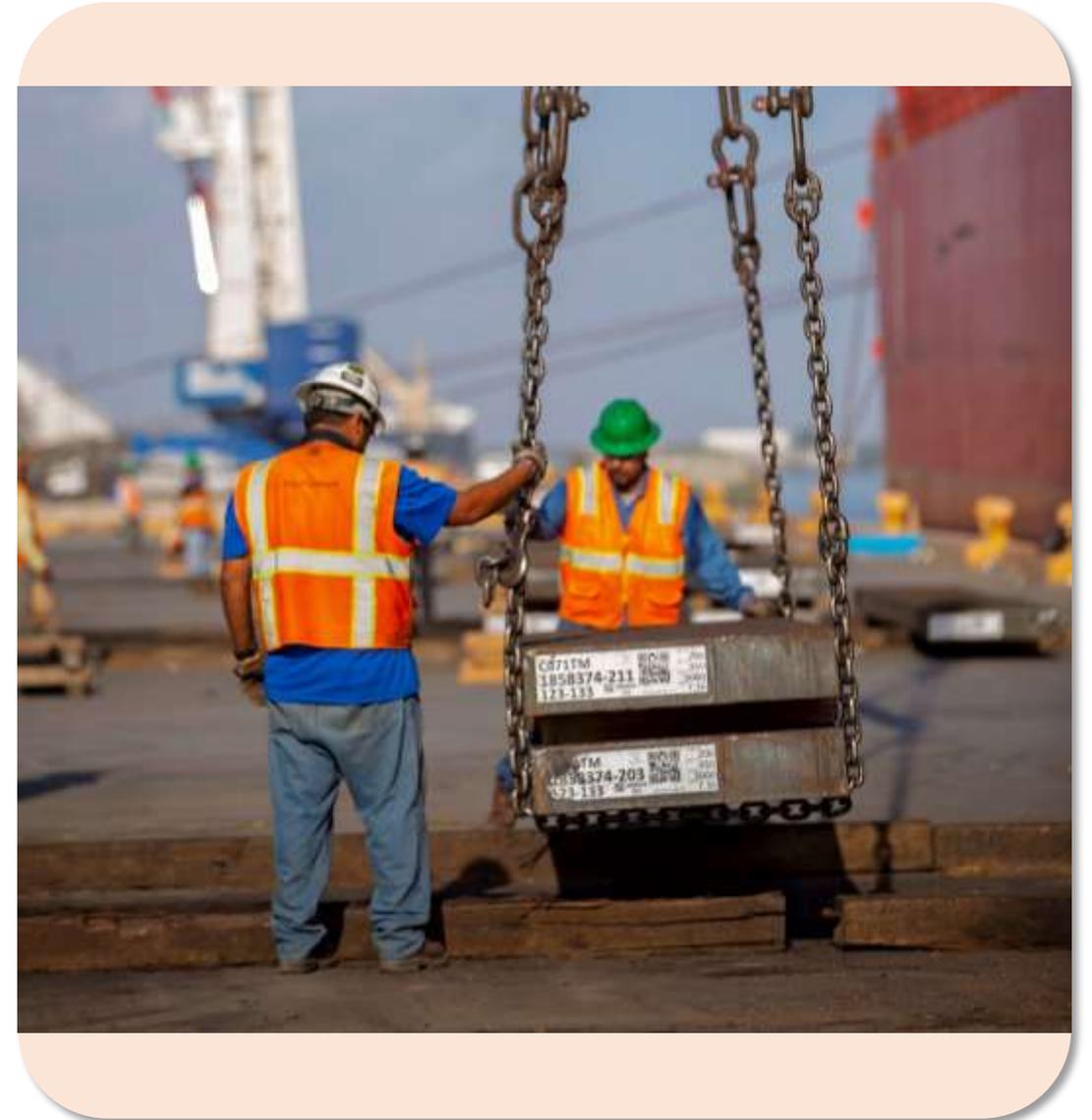
# The BIH Deepening facilitates:

- Increased Cargo Movements
- Reduced Transit Times
- Operational Safety



# A Deeper Channel Supports:

- **LNG Projects**
  - **Next Decade**
  - **Annova**
  - **Texas LNG**
- **Jack-up and Semi-submersible Offshore Oil Rigs and Platforms.**
- **Petroleum Products and Crude Oil.**
- **Dry Bulk Materials Like Aggregates, Sugar, Salt and Cement.**
- **Steel, Fabricated Metal, Iron and Ores.**



# Project Estimate & Potential Savings

The most recent cost estimates for the BIH project are \$350 million. Under WRDA 2016 cost share protocols, the funding ratios would be a 75/25 split, or \$262.5 million federal responsibility and \$87.5 million non-federal. The proposed USACE P3 Pilot Program offers a strategy supporting the Administration's stated goals of supporting financially innovative solutions to utilize private options, reducing the federal share by \$122.5 million.

<b>BIH Estimate Cost (Millions)</b>	<b>\$350</b>
<b>WRDA 2016 75/25 Basis</b>	<b>\$262.5/\$87.5</b>
<b>Public-Private Partnership Plan</b>	<b>\$140/\$210</b>
<b>Federal Savings</b>	<b>\$122.5</b>

# Project Schedule/Timelines

<b>Task Name</b>	<b>Duration</b>	<b>Start</b>	<b>Finish</b>	<b>Who Controls Task Duration</b>
<b>Ops reviews PA checklist &amp; RE issues Outgrant</b>	<b>85 days</b>	<b>Fri 9/13/19</b>	<b>Fri 12/6/19</b>	<b>SWG</b>
<b>SWG compiles 204(f) package/COL signs</b>	<b>1 day</b>	<b>Mon 12/9/19</b>	<b>Mon 12/9/19</b>	<b>SWG</b>
<b>Finalize Bid Documents</b>	<b>103 days</b>	<b>Mon 6/10/19</b>	<b>Fri 9/20/19</b>	<b>HDR</b>
<b>Submit 204(f) package to SWD/HQ RIT</b>	<b>0 days</b>	<b>Mon 12/9/19</b>	<b>Mon 12/9/19</b>	<b>SWG</b>
<b>SWD/HQ Concurrent Review</b>	<b>40 days</b>	<b>Tue 12/10/19</b>	<b>Sat 1/18/20</b>	<b>USACE</b>
<b>Submit to ASA(CW)</b>	<b>1 day</b>	<b>Mon 1/20/20</b>	<b>Mon 1/20/20</b>	<b>USACE</b>
<b>ASA Approval of 204(f) Package/Executed MOA</b>	<b>45 days</b>	<b>Tue 1/21/20</b>	<b>Thu 3/5/20</b>	<b>ASA</b>
<b>Port ready to advertise/legal review</b>	<b>10 days</b>	<b>Fri 3/6/20</b>	<b>Sun 3/15/20</b>	<b>Port</b>
<b>Advertise (includes Bend Easing)</b>	<b>30 days</b>	<b>Mon 3/16/20</b>	<b>Tue 4/14/20</b>	<b>Port</b>
<b>Receive bids</b>	<b>7 days</b>	<b>Wed 4/15/20</b>	<b>Tue 4/21/20</b>	<b>Port</b>
<b>Construction Award Date</b>	<b>4 days</b>	<b>Wed 4/22/20</b>	<b>Sat 4/25/20</b>	<b>Port</b>

**If the project were to be constructed utilizing traditional USACE practices and WRDA 2016 cost share protocols, the Federal cost would be \$139 million of the estimated \$241 million channel-project-only cost. By utilizing the P3 model, the estimated project cost would be reduced by as much as \$150 million.**





**Thank you!!**

**Questions?**

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