



TRI - REGIONAL JETS 2025



Cedar Port Navigation District Channel Deepening Project Section 203 Integrated Feasibility Study and Environmental Impact Statement (FS/EIS)

Better, Faster, Cheaper Civil Works? A
Section 203 A Case Study Sharing Real
World Pros and Cons



A Section 203 Case Study Sharing Real World Pros and Cons

Panelists:

- Clayton Henderson, MBA, Port Director, Cedar Port Navigation and Improvements District (CPNID)
- Lena DeSantis, Principal Planner, Anchor QEA

Moderator:

- David A. Rose, Lt Col, USAF, Retired, Attorney at Law, Rose Consulting Law Firm



MODERATOR

David A. Rose, Lt Col. ASAF, Retired

ROSE CONSULTING LAW COMPANY

Principal Attorney

- **Sports Teams: University of Georgia-Go DAWGS!**
- **Vacation Spots: Europe Caribbean**
- **Did you Know?: I was an officer in the military (Army Navy and USAF for 28 years)**
- **Hobbies: Travel (see above), flying single engine aircraft, Scouting**
- **Coollest Project(s):Military Recruiting, GA Politics, STEM Projects**



Panelist

Clayton Henderson, MBA

CEDAR PORT NAVIGATION AND IMPROVEMENTS DISTRICT (CPNID)

Port Director



- **Sports Teams:** Texas A&M Aggies, Iter-Miami
- **Vacation Spots:** Park City, Utah and anywhere on Lower Provo River
- **Did you Know?:** I served in the USMC
- **Hobbies:** Flying, Long distance running, Coaching soccer, Fly fishing
- **Coollest Project(s):** This project!, Pioneering a mobile mini-frac sand plant and limited disturbance in CO with a bunch of Aggie classmates



Panelist

Lena DeSantis

ANCHOR QEA, LLC.

Principal Planner



- **Sports Teams: Mets, Cardinals (go Wes)**
- **Vacation Spots: Italy, the Berkshires, CA, really anywhere**
- **Did you Know?: I worked at the Ports of Los Angeles and NY/NJ**
- **Hobbies: Running, hiking, yoga, my garden**
- **Coollest Project(s): This one (of course), tagging sea turtles, the ship under WTC**

Industry-Government Expert Panel discussing the challenges and opportunities of Section 203 of the Water Resources Development Act (WRDA). Section 203 of WRDA 1986, as amended, authorizes non-federal interests to complete authorized water resource development feasibility studies at their own expense and to submit the completed feasibility study to the Secretary of the Army for action. Using a recently developed 203 project as example, the panelists will share best practices.

Learning Objectives

- Provide an overview of the Section 203 Process from the perspective of the Non-Federal Interest (NFI) including managing inherent governmental responsibilities
- Learn about best practices to integrated the feasibility study (FS) process and the National Environmental Quality Act (NEPA)

Agenda

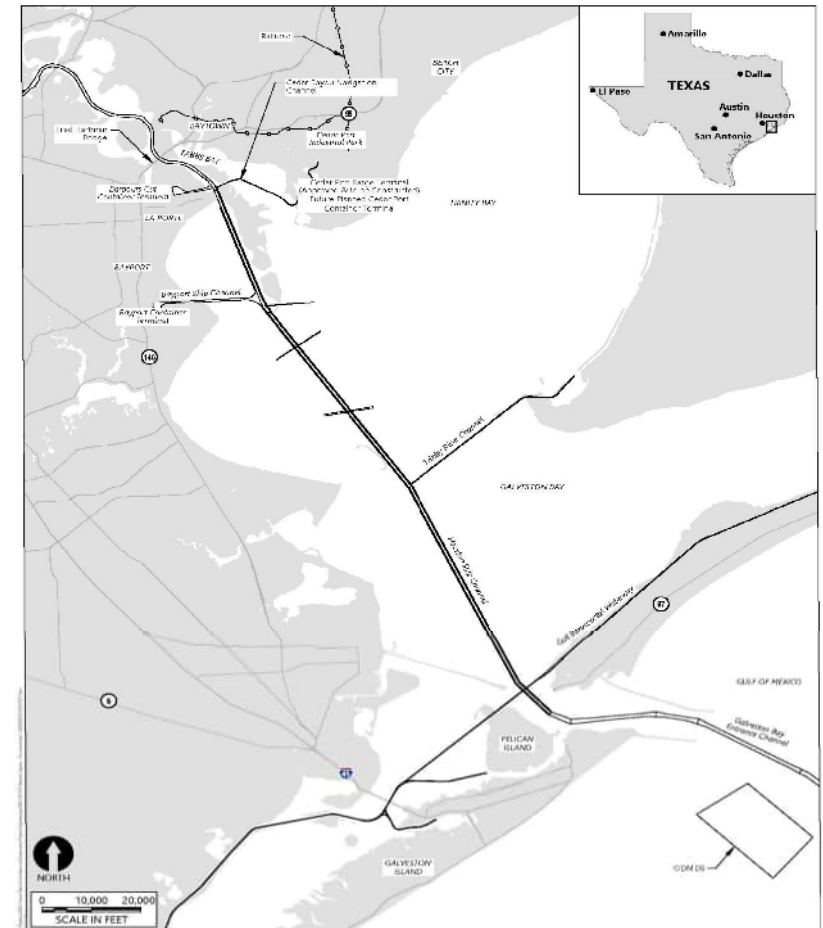
- Project Background
- Keys for Success (Highlights)
 - Early and Often Coordination
 - Developing Alternatives
 - External Review
 - Cost Certification
- Q&A / Discussion

Background



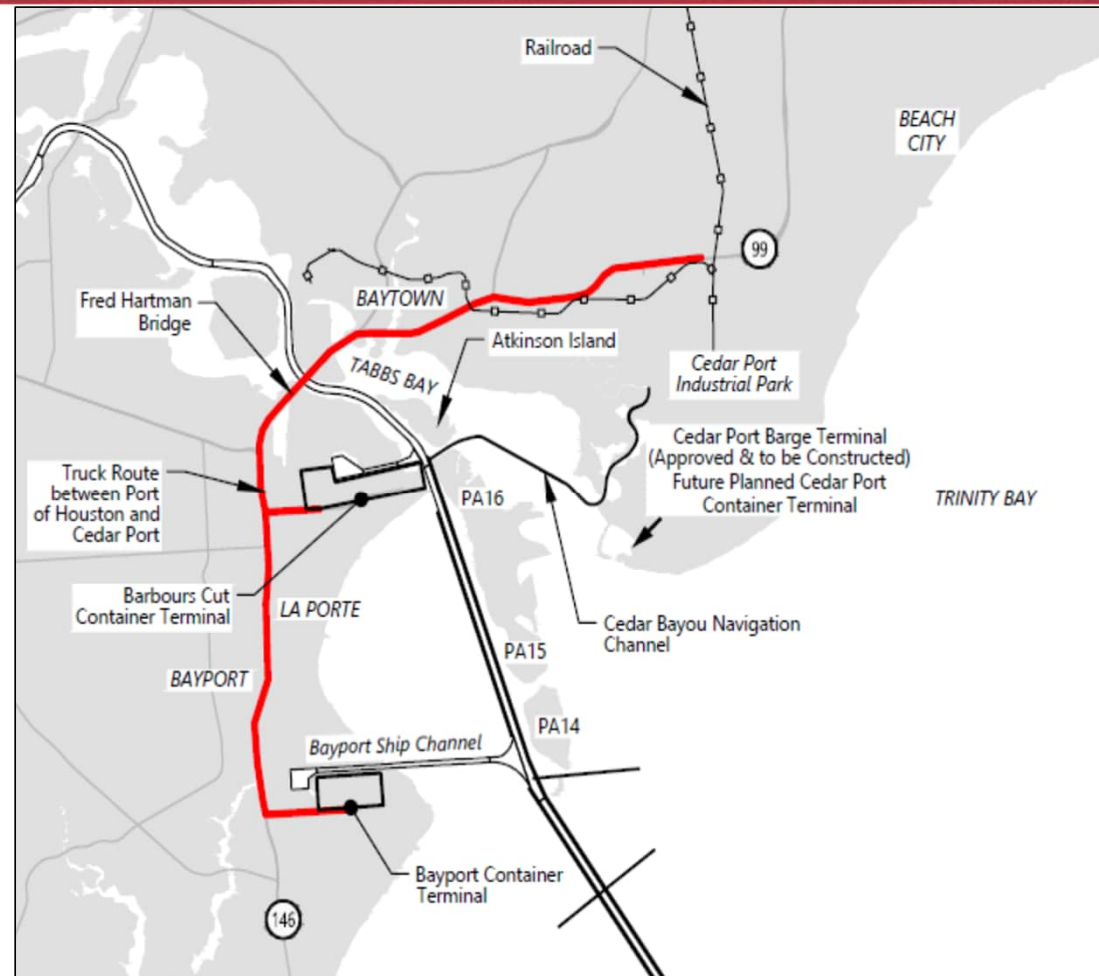
Project Background

- Currently, 1.5 million TEUs of containerized cargo are offloaded at the Port of Houston container terminals and trucked to the Cedar Port Industrial Park each year
- CPNID's long-term plans have always included establishing a deep-draft terminal at the Cedar Port Industrial Park



Future Projections

- TEU Volumes to Houston Region
 - 3.8M TEUs in 2023
 - 1.5 M TEUs currently trucked to Cedar Port (800,000 truck trips)
 - 10.9M TEUs projected by 2045
 - 6.3M for Cedar Port
 - Container-on-Barge can accommodate 1.2M TEUs
 - 5.1M TEUs = 2.75 M Truck Trips



Identified Problems

Inefficient cargo movement.

Congestion on local roads. Current built-out infrastructure, including the Houston rail yard, limits the possibility of rail connections between the Port of Houston and the Trans Global Cedar Port Industrial Park.

Navigational safety.

Physical limitations limit the number of barges that can be moved daily. Projected increases in barge and vessel activity in the turning basin leading to the Cedar Bayou Navigation Channel are expected to create a navigation choke point.

Current and future container capacity.

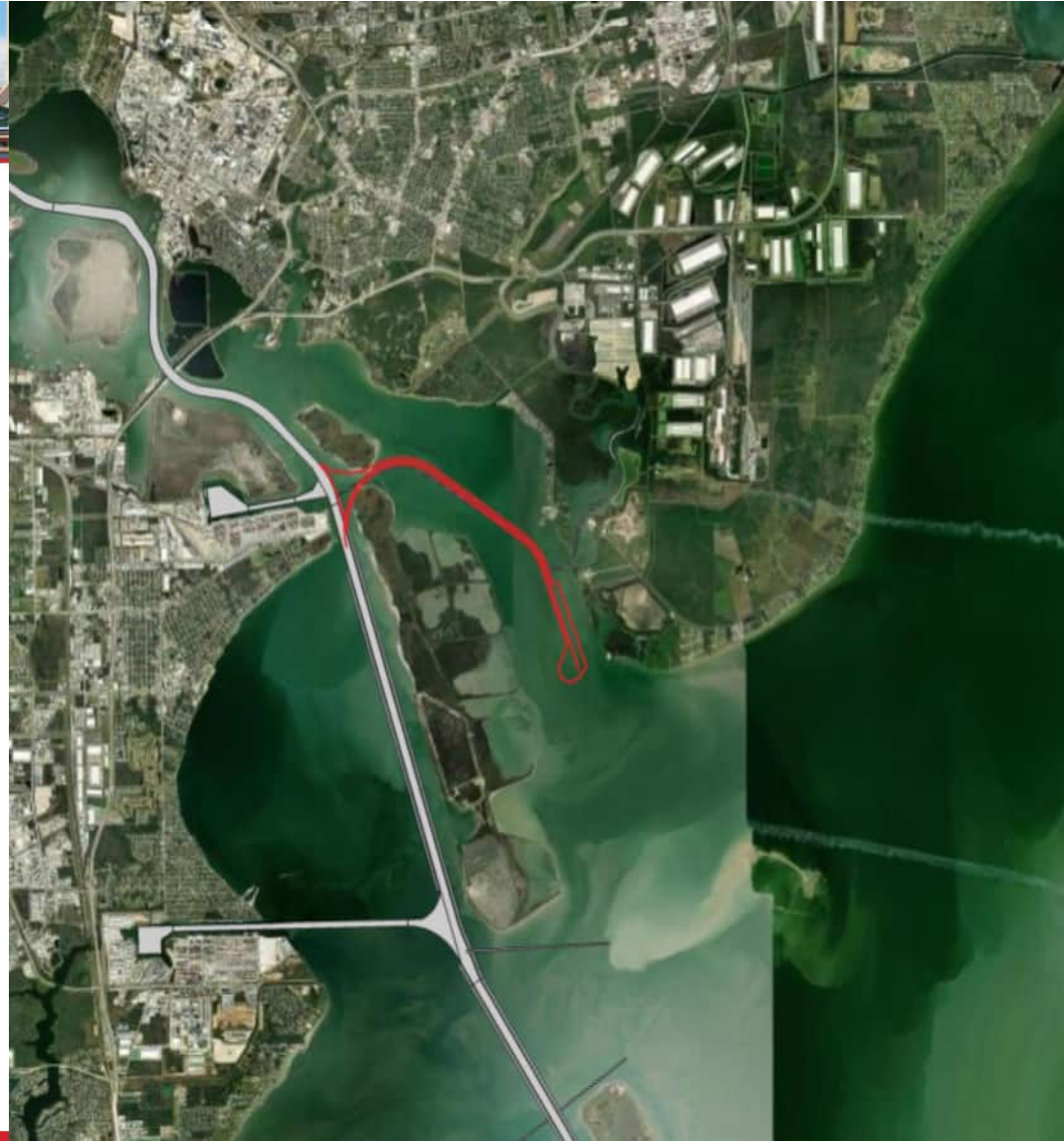
Current forecasts a current maximum capacity of 7.8 million TEUs. The Economic Study completed for this study estimates that the Houston area will see 11 million TEUs by 2045.



WRDA Section 203

Investigate the feasibility of a new deepwater connection between the Houston Ship Channel (HSC) and a planned future deepwater terminal at Cedar Port Industrial Park by deepening the federally authorized shallow water Cedar Bayou Barge Channel.

Non-Federal Interest: CPNID



Recommended Plan

Route "E"

- 3.72 Miles
- 19M cy Material
- 2 Beneficial Use (BU) Islands
 - BU-1: 614 acres
 - No Net Loss
 - BU-2: 770 acres
 - Future Maintenance
- Benefit-to-Cost Ratios
 - 10.7 (3% FY25)
 - 5.5 (7% OMB)



Keys for Success (Highlights)



Coordination

- ASA-CW
 - First Meeting: January 9, 2023
 - Workshop at Cedar Port April 2 and 3, 2024
- USACE MOAs
 - Technical Advice: March 2023
 - Inherent Federal Actions: August 2023
- USACE PDT
 - PDT Team
 - Technical Services: ERDC modeling, DDNPCX modeling, approval for one-time use

MEMORANDUM OF AGREEMENT
BETWEEN
THE DEPARTMENT OF THE ARMY
AND
CEDAR PORT NAVIGATION AND IMPROVEMENT DISTRICT
FOR THE PROVISION OF TECHNICAL ASSISTANCE
RELATING TO THE
CEDAR PORT SECTION 203 STUDY

This MEMORANDUM OF AGREEMENT (hereinafter the "Agreement") is entered into this 15th day of March, 2023, by and between the Department of the Army (hereinafter the "Government"), represented by the District Commander for the Galveston District (hereinafter the "District Commander"), and the Cedar Port Navigation and Improvement District (hereinafter the "Non-Federal Interest"), represented by the President.

WITNESSETH, THAT:

WHEREAS, the Cedar Port Study was authorized by Rivers and Harbor Act of 1890;

WHEREAS, Section 203 of the Water Resources Development Act of 1986, as amended (33 U.S.C. 2231), authorizes the Non-Federal Interest to undertake a Federally authorized feasibility study of a proposed water resources development project (hereinafter "Section 203 Study") and to submit the non-Federal report of that study (hereinafter the "Section 203 Report") to the Assistant Secretary of the Army (Civil Works) for review; and

WHEREAS, the Government is authorized pursuant to Section 203(e)(2) of the Water Resources Development Act of 1986 (33 U.S.C. 2231(e)(2)) to provide to the Non-Federal Interest technical assistance relating to the Section 203 Study if the Non-Federal Interest pays all costs of providing such technical assistance.

Federal and State Agencies

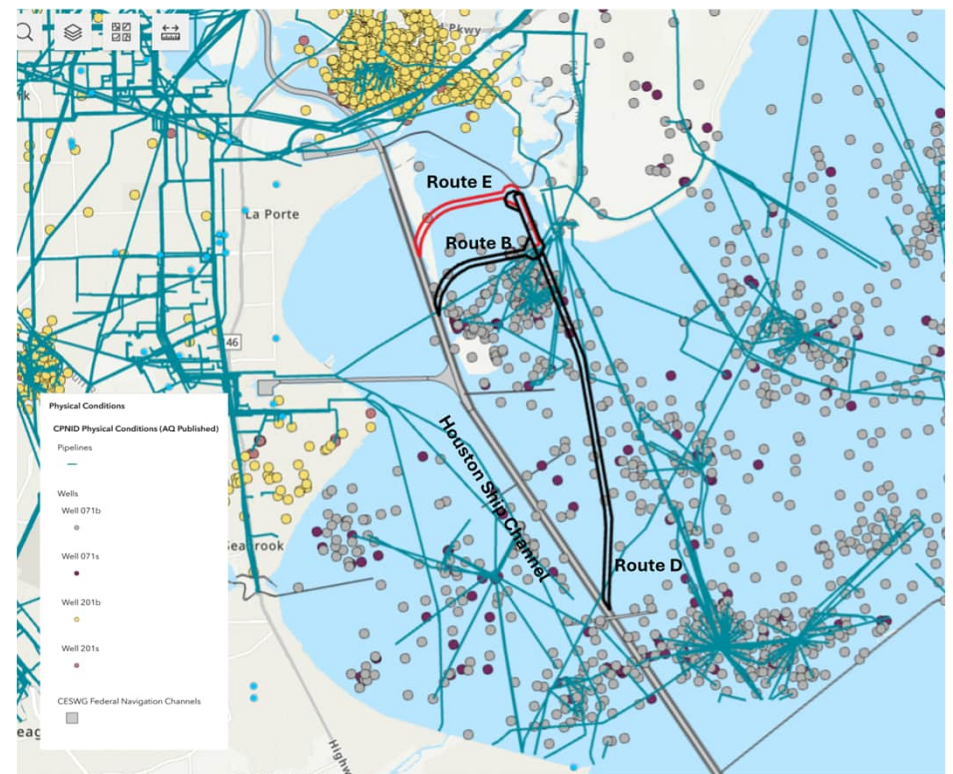
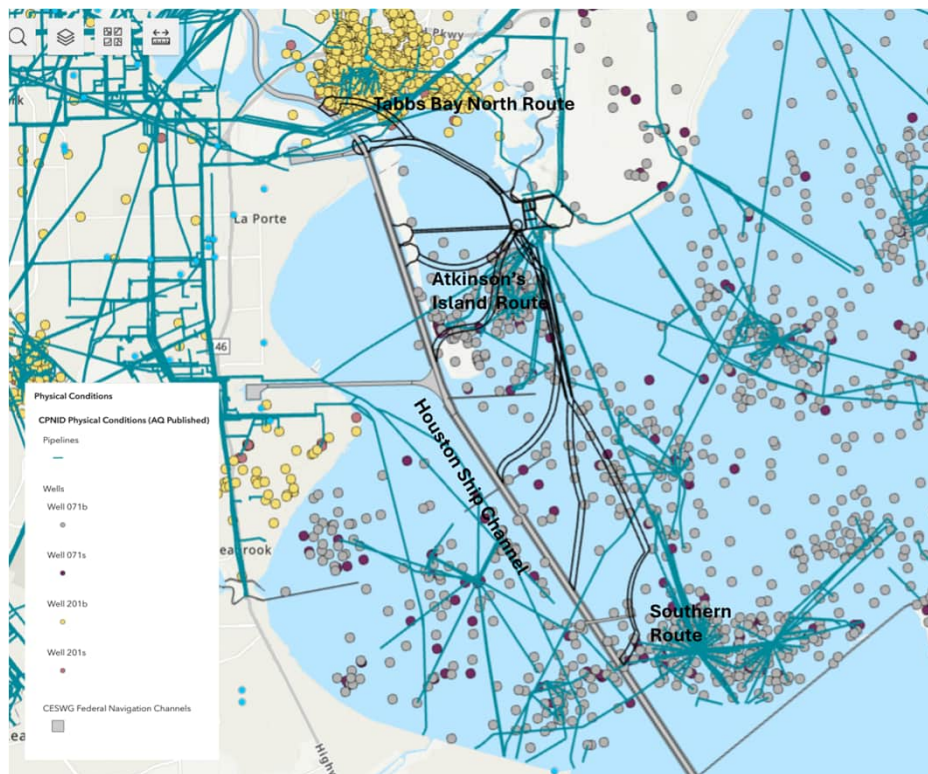
- Group meetings throughout the process
- Presented and discussed methodologies and results
- Shared folder of all presentations

Date	Agency Attendees	Meeting Goals
June 30, 2023	Scott Alford, USDA Charrish Stevens, NMFS	Introduce Project Solicit Preliminary Agency Input Present Expected Schedule
November 2, 2023	Brian Rosegger, NMFS Charrish Stevens, NMFS Michael Barnette, NMFS Peter Schafer, Texas CEQ Matt Mahoney, TxDOT Sarah Bordelon, GLO David Green, GLO Amy Borgens, THC Emily Dylla, THC Melissa Lupher, TWDB Kyle Wright, TWDB Scott Alford, USDA, NRCS Jan Culbertson, USFWS Brandon Ford, USACE – SWG Melinda Fisher, USACE – SWG	Cooperating Agency Meeting No. 1 Discussed Project History and Overview; Requested Feedback on Scope
January 11, 2024	Scott Alford, USDA Brian Rosegger, NMFS Charrish Stevens, NMFS Michael Barnette, NMFS Jan Culbertson, USFWS Adriana Leiva, USFWS Allison Buchtien, GLO Sarah Purdon, GLO Melissa Lupher, TWDB Nicole Plowman, TPWD Rachel Lange, TPWD Mike Rezsutek, TPWD Gretchen Brown, USACE – SWG Brandon Ford, USACE – SWG Melinda Fisher, USACE – SWG	Cooperating Agency Meeting No. 2 Presented Alternatives
June 24, 2024	Jan Culbertson, USFWS Nicole Plowman, TPWD Gretchen Brown, USACE – SWG Brandon Ford, USACE – SWG Melinda Fisher, USACE – SWG	Cooperating Agency Meeting No. 3 Presented Biological Modeling Approach

PDT Involvement Early and Throughout

Resource Area	PDT Members	Meeting Dates
HTRW	Eugenia Barnes	6/22/23, 6/30/23, 12/21/23, 1/24/24
Biological Report	Melinda Fisher and Brandon Ford	7/12/23, 8/24/23, 12/15/23, 12/19/23, 1/10/24, 6/27/24
Conformity Assessment	Eugenia Barnes, Gretchen Brown	3/14/24
Cultural	John Campbell	12/19/23
Geotech	Ziaul Haider and David Boothby	9/20/23, 12/21/23, 3/7/24
Coastal Engineering	Galveston District (Himangshu Das, Mohammad Islam) and ERDC teams (Chris Massey)	3/9/23, 3/10/23, 4/16/23, 8/25/23, 1/24/24
Plan Formulation	Susan Henshaw and Glenn Fulton	1/31/24
Real Estate Plan	Karen Vance-Orange, Gretchen Brown	4/10/24

Identifying Alternatives



Navigation

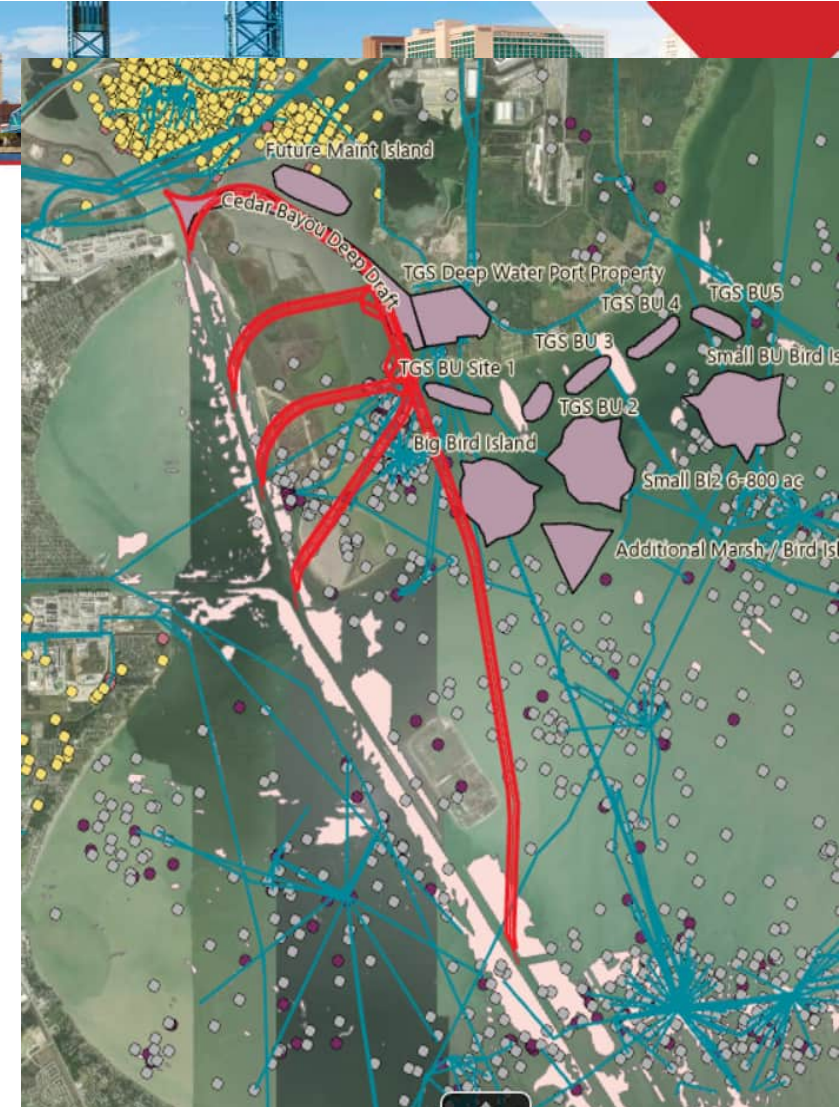
Table 1. Ranking of Channel Alternatives

Ranking	Channel	Pass Rate	Avg GAR	Hazards	Notes
First	Bravo #3 Final 400'	100% (4/4)	1	Speed limit 6kn on turns	Preferred
Second	Delta 455'	100% (2/2)	1	Wider turns	Acceptable with minor changes
Third	Delta 400'	71% (5/7)	2	Speed limits; Wider turns	Acceptable with minor changes
Fourth	Bravo #3 400'	66% (2/3)	3	Entry turn requires too great rate of turn	Acceptable with major changes
Fifth	Alpha 455'	50% (1/2)	3	Entry turn requires too great rate of turn	Not acceptable
Sixth	Alpha 400'	29% (2/7)	3	Entry turn requires too great rate of turn	Not acceptable
Seventh	Bravo #1 400'	33% (1/3)	3	Entry turn requires too great rate of turn	Not acceptable
Last	Bravo #2 400'	0% (0/1)	3	Entry turn requires too great rate of turn	Not acceptable

- Routes were simulated
- Screening simulations are used to ensure that proposed channel alignment was “feasible” prior to final simulations during the pre-construction engineering and design (PED) phase of the project
- All screening simulations for the Cedar Bayou project were run at slack tide (no currents—wind is the main issue in the area)
- ERDC was briefed (along with CESWG) prior to the screening simulations and was represented during the simulations by Ms. Shannon Stever

Parallel Process

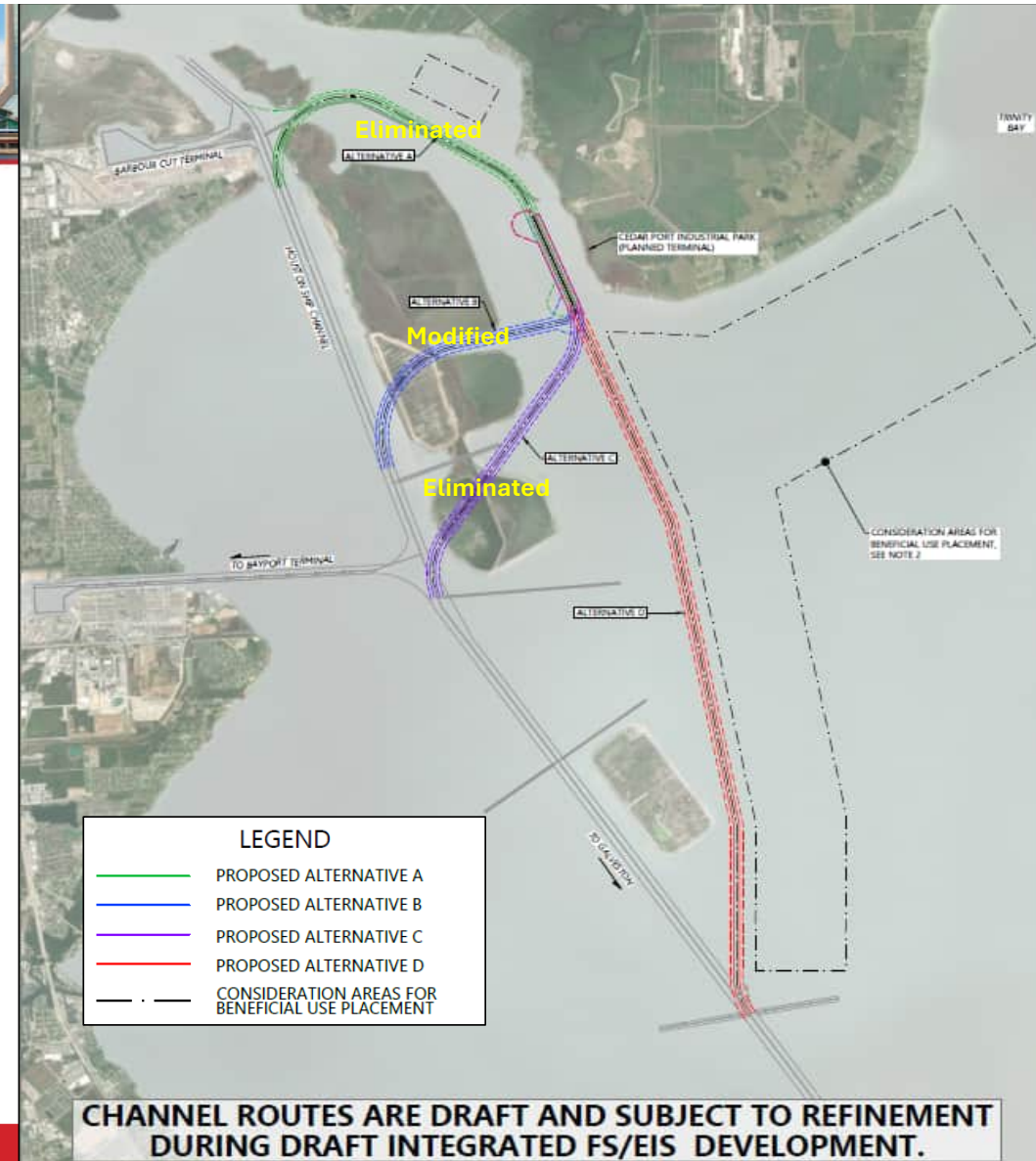
- CPNID began field studies and modeling efforts in parallel to PDT set up
 - Webmap allowed for quick access of information by all team members and presented as a clear communication tool with stakeholders
 - Key issues, namely HTRW and dredge material disposal locations were flagged as critical issues early to address
 - Geotech ran early to inform constructability



Original Alternatives

Four alternative channel routes were noticed as part of NOI

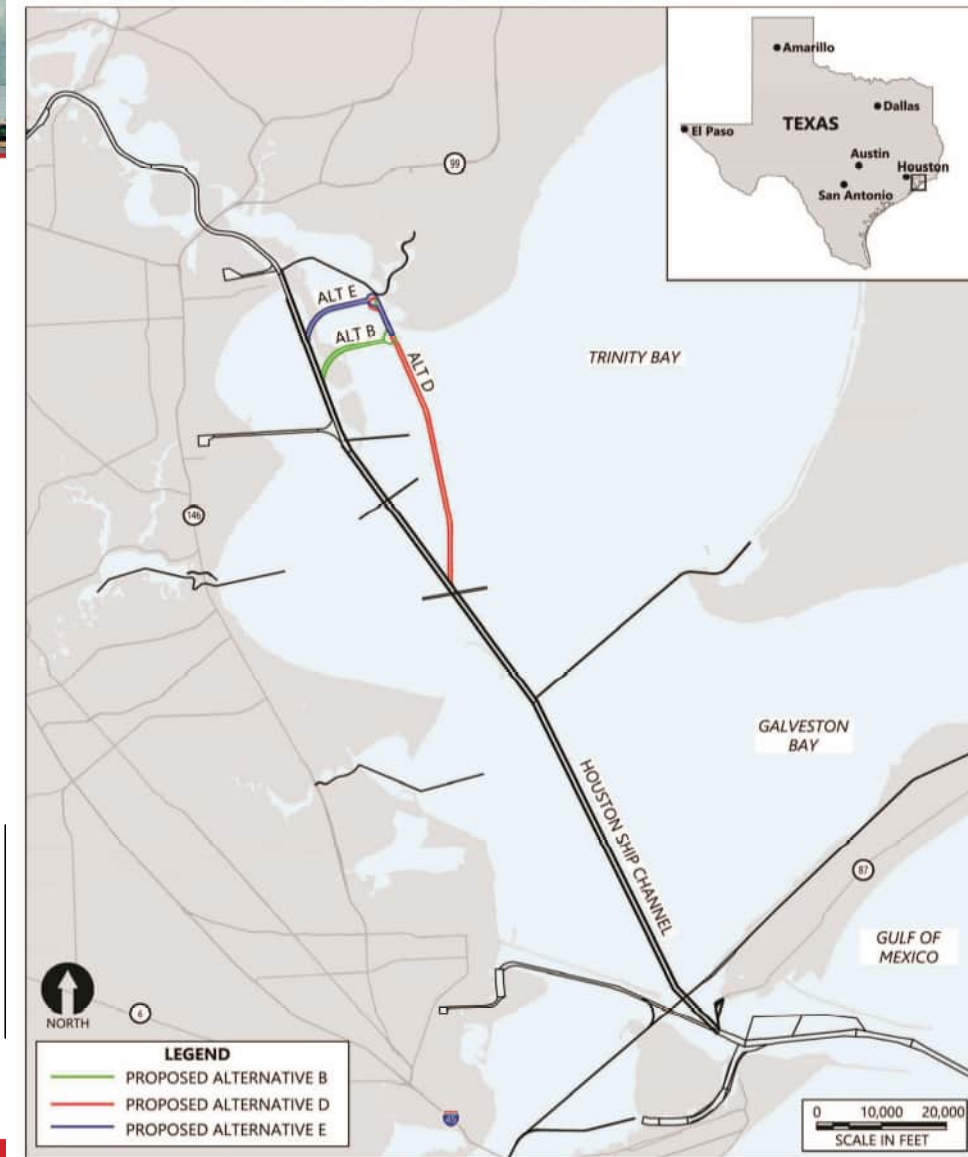
- Alternative A
 - *Eliminated due to navigational issues*
- Alternative B
 - *Route modified as part of project planning*
- Alternative C
 - *Eliminated due to impacts to oil and gas resources (pipelines and wells)*
- Alternative D
 - *Carried*





Alternatives Carried Forward

- Dredged to -50 feet mean lower low water (MLLW) to meet the depth of the HSC after the Project 11 improvements plus an overdredge allowance as called for in USACE channel design guidelines
- Up to 400 feet wide at its base and maintained at -46.5 feet MLLW



- Silt and fines to ocean
- Clays to build levies
- Remaining material
 - Future Terminal (assuming permits)
 - BU Islands
 - Incorporate nature-based approaches to shoreline stability and the establishment of native habitats.
 - Also promote resiliency by protecting headlands against some storm surge and wave action



No Net Loss

- Nature-based solution/engineering with nature
 - Habitat on exterior slopes EFH benefits and shoreline protection
 - Finished maximum height planned to accommodate high value coastal prairie and upland habitat
 - Phasing to provide for future adaptive management and additional habitats



External Review

Comment Response Record for the Independent External Peer Review (IEPR) of the TGS Cedar Port Navigation District Channel Deepening Project, Baytown, Texas - Draft Integrated Feasibility Study/Environmental Impact Statement

Project Team Final Evaluator Responses and Panel Final BackChecks

Prepared by
Battelle Memorial Institute
505 King Avenue
Columbus, Ohio 43201

Prepared for
Trans-Global Solutions, Inc. (TGS)
7500 Fm 1405 Rd
Baytown, TX 77523

Battelle Agreement No. OPP227501

March 7, 2025

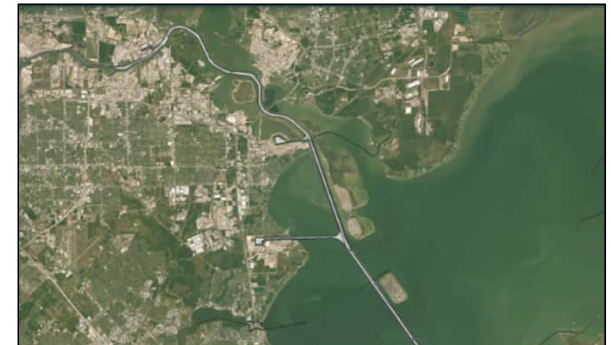
INDEPENDENT TECHNICAL REVIEW REPORT - CEDAR PORT NAVIGATION AND IMPROVEMENT DISTRICT (CPNID) CHANNEL DEEPENING

Integrated Feasibility Study/Environmental
Impact Statement (FS/EIS)

BLACK & VEATCH PROJECT NO. 422570

PREPARED FOR

Cedar Port Navigation District
30 APRIL 2025



September 2024
Cedar Port Navigation District Channel Deepening Project



District Quality Control (DQC) Equivalent Report
for the Draft Integrated Feasibility Study/
Environmental Impact Statement

Prepared for Cedar Port Navigation and Improvement District

IEPR, ITR and DQC

- DQC Performed by engineering team
 - Memorialized process
- CPNID engaged Battelle to perform comprehensive IEPR
 - After one round of review IEPR and Project team got to Concur on all 6 identified comment issues
 - IEPR complete
- External ITR to streamline review
 - Completed in 30 days with comments back checked

Cost Certification

- CSRA and MCACES/MII
 - Cost Modeling vs Construction Assumptions
- Design Maturity and TPCS
 - 35% design guidelines to Walla Walla
 - 70% Beneficial use of dredged materials

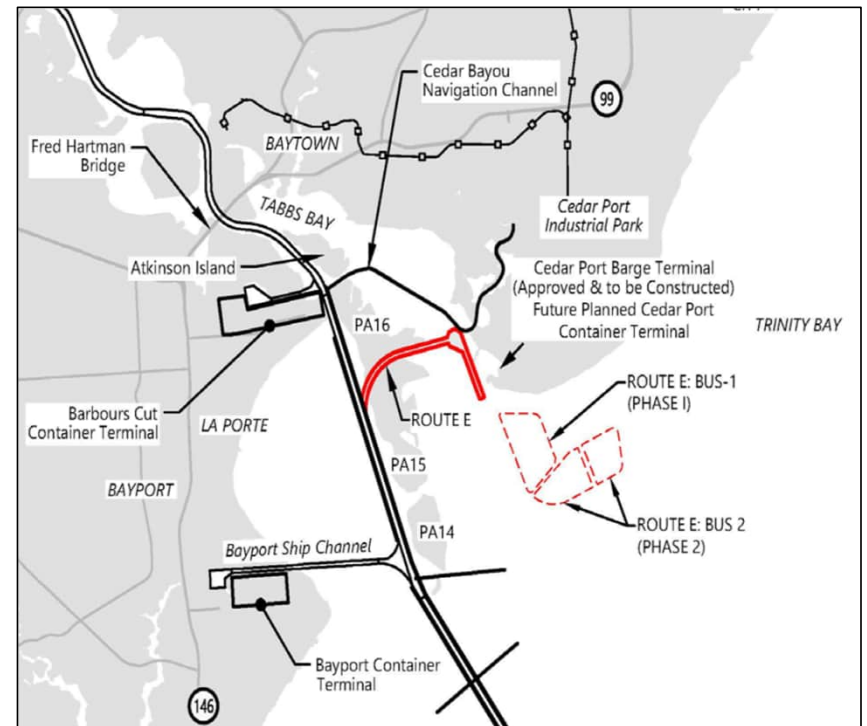
	3% (FY25)	7% (OMB)
AAEQ Total Project Benefits	\$493,263,000	\$455,395,000
AAEQ Total Project Costs	\$45,900,000	\$83,220,000
AAEQ Net Benefits	\$447,363,000	\$372,175,000
Benefit-to-Cost Ratios	10.7	5.5

ASA-CW Submittal



ASA Submittal and Review

- Final Integrated FS/EIS Submitted to ASA on August 28, 2025
- Study submitted is
 - Engineering Feasible
 - Environmentally Compliant
 - Economically Justified



Q&A / Discussion



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Society of
SAME
American Military Engineers

Contact Us



Mr. Clayton Henderson

chenderson@tgsgroup.com



Ms. Lena DeSantis

lmdesantis@anchoragea.com



Mr. David Rose

drose@roseconsultingllc.org



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